

## Theatrical play and social skills development: teachers' perspectives on educating autistic students

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### Abstract

The pedagogy of theatrical play is a relatively new educational approach within the school system. Aim is to examine teachers' opinions of theatrical play as a method which can provide opportunities for students with autism to interact with others in a fun and supportive environment. Twelve teachers who are selected by purposive sampling ( $M = 40.6$  years) are teaching students with autism in general primary schools in Northern Greece and participated in semi-structured interviews which lasted 45 minutes. The protocol of interview consisted of 13 open-closed questions. The answers were collected through a recording device. A depth-analysis of teacher's responses was used to analyse their patterns and relationships. Teachers believe that theatrical play with appropriate curricular decisions and knowledge can hold an essential place in the classroom and supported the hypothesis that it is especially effective in developing and improving the duration and frequency of autistic students' social interactions.

**Keywords:** Autism, teaching, theatrical play, school, social skills.

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## 1. Introduction

Social skills play a pivotal role in the development of a child's ability to communicate with other people, to involve knowing how to act in a certain social situation, to improve and maintain meaningful social and emotional relationships in his or her lifespan (Merrell & Gimpel, 1998). The difficulty and inability to deliver an acceptable definition of social skills create significant difficulties in recognising behaviours that make up the meaning of social skills in a commonly accepted way. According to Bloomquist (2013), the determination of behaviours depends on the degree of quality and the difficulty of individual responding to various situations, while according to Laurel and Taylor (2016) social behaviours depend on their grade to five different reporting categories. However, according to McClelland, Cameron Ponitz, Messersmith and Tominey (2010) social behaviours organised by social competence, emotional competence, cognitive process and self-regulation, because of these characteristics of social behaviours, people can monitor their everyday life and involvement in other activities that are controlled forms of human interactions.

Recent findings support a view that there is a strong correlation between the difficulties which students with autism spectrum disorders (ASD) face in terms of social skills and their social isolation (El Achkar & Spence, 2015; Locke, Williams, Shih & Kasari, 2017). These students do not perceive the power of communication, which directly or indirectly can influence their behaviours and interactions in a social environment such as school. Indirectly related to incomplete communication is also the misinterpretation or omission of non-verbal elements. The difficulty of 'translating', according to Barak and Feng (2016) means that the message is not adequately recruited and is difficult to interpret within the context of communication.

Vygotsky's sociocultural theory includes cooperative learning as an educational method which actively views children to participate in a social process and become active through the Zone of Proximal Development and creates a causal relationship between social interaction and experience with peers (Lantolf & Poehner, 2014). Social interaction for autistic children is viewed as a fundamental feature of social life in which autistic children act with peers (Kiraly, 2000; Smagorinsky, 2016). Therefore, according to Vygotsky the knowledge is within the learning communities and requires social interaction (Tennant, Martin, Rooney, Hassan & Kane, 2017). This finding led some teachers to rebuild the theory of learning in the early 1990s. Lave and Wenger in the early 1990s formulated the 'Situated learning' in which learning functions as a tool of social interaction where children participate in structured frameworks and interact in small groups to achieve common goals. Nowadays, and according to Vygotsky's theory, the theatrical play is one of the recreational and pedagogical techniques which teachers use in primary schools to assist ASD children's social skills development in a range of different dimensions of daily life (Carlson, 2017; Rubtsova & Daniels, 2016).

Several theatrical play programmes are currently being used on children with ASD. The literature review has led to the identification of a number of theatrical play programmes which have become crucial in terms of developing social skills on ASD children (D'Amico, Lalonde & Snow, 2015; Guivarch et al., 2017). In a pilot study, Corbett et al. (2011) evaluated the effect of a theatrical programme (SENSE) which was designed to improve socioemotional functioning and reduce stress in children with ASD. Eight children with ASD were paired with typically developing peers. Participants with ASD showed improvement in socio-emotional through the cooperation with their peers and expressed their own needs. According to Corbett et al. (2014) and the results of subsequent research, it is necessary to understand that this programme has an educational role.

Teaching social skills to children with ASD present complex instructional challenges for teachers, because they have to identify, interpret and reproduce the general palette of social behaviours and target critical developmental areas related to autism designing programmes and plans to generalise skills beyond the initial educational circumstances (Bremner, 2017). During recent years, teachers and specialists in fields of Special Education and Adapted Physical Education have attempted to design individualised programmes which improve personalities of students with ASD (self-image, emotion

and interaction) and develop social skills. Based on the contemporary literature, educational programmes are usually supervised by a multidisciplinary team involving teachers, school psychologists and special pedagogues (Goldstein, Lerner & Winner, 2017).

According to Wooland (1993) schools today try to include theatrical play as a learning medium in specialist settings. Typically, the extent of the theatrical play in many schools is only a didactic hour and this way does not support the goals of improving social skills on students with ASD. One of the most important reasons is that many of the teachers prefer to follow the curriculum of general education and spend more time on theory than practice. The role of the teachers is of utmost importance in ensuring the success of students with ASD. The teachers set the tone of the class and are responsible for making sure all the needs of the students are being met. Children who participate in theatrical play programmes in class feel more comfortable, improve their ability to play cooperatively, share, speak with respect, communicate while smiling and say appropriate pleasantries, like please and thank you.

As stated above, less experienced teachers may lack confidence in using theatrical play as an educational method because of its requirement for reflection in action and subtle blending of spontaneity and structure. On the other hand, more experienced teachers have the flexibility to create appropriate conditions to teach social skills with little scope for failure in a 'safe environment' such as schools. This study gives teachers a wider outlook on theatrical play effect to students with ASD. In short, it aims to: (1) indicate and analyse the specific challenges and opinions by primary school teachers about the role of theatrical play on ASD student's life in general and in teaching social skills in particular, (2) emphasise the importance of theatrical play in school environment and social interactions among students with ASD and their typical classmates and (3) examine the effect of theatrical play on ASD students' needs in relation with traditional method at school.

## **2. Research questions**

The study specifically aims to answer the following research questions:

1. Is theatrical play a teaching method on social skills development for ASD students' at school?
2. Is the content of theatrical play appropriate to respond to ASD students' needs at school?

## **3. Methodology**

### **3.1. Participants**

In order for the researchers to obtain teachers for the study, they sent out emails to 20 integrated co-teachers and physical education teachers who are teaching in primary schools in Northern Greece. In these schools ASD students are attending general classes. The researchers coordinated a date and time to conduct and record an interview about teacher perspectives on using theatrical play activity in their classrooms. Although they made sure to emphasise that they were willing to accommodate their schedules and that the interview would not take long, in spite of these assurances, it was difficult for 10–15 participants to agree to take the time to be interviewed. Of the 20 teachers only four responded and agreed to be interviewed. Eight teachers cited commitments to spring school obligations as reasons to not participate, six others flatly did not respond at all and two said that they would but failed to respond back to researchers with a day and time that would work for them. The researchers contacted with 20 other teachers from three other schools. Despite the decrease of involvement required from the teacher, the response was rather similar. However, researchers were able to obtain 12 teachers who agreed to participate. Twelve participants were interviewed and answers to the interview questions. All teachers were female (six physical education teachers and six integrated co-teachers) and their age ranged between 37.2 and 40.5 years. Teachers from six different schools participated in this study. The interviews were conducted in 2016 and the names of all teachers, places and schools are alias. Each teacher was given a research consent form to sign to

participate in the study. Teachers were selected by purposive sampling method, which was useful because the researchers wanted to study the effect of theatrical play especially in ASD students' population in the school environment. In addition, teachers who are selected had experience with ASD students and theatrical play in school class for over 12 years. Face-to-face dialogues were used as a democratise research tool which makes individual voices public.

### **3.2. Instruments**

Constructing the questions for the interview was a vital part of the methodology process. The questions served to individual teacher's opinion on using theatrical play on social skills development on ASD students in general school. A set of five questions were concerned with the ability of ASD students to work in groups cooperate, communicate and interact with their classmates in theatrical play at school. A set of five questions were concerned to the ability of ASD students to understand instructions by teachers in a theatrical play and their aggressive behaviours. The protocol of teachers' interview is identical in Appendix Eq. (A.1). At the end of this interview were added three closed questions which refer to the role of theatrical play as a pedagogical usefulness instrument in school curriculum (5-point Likert scale). The most important resource for systematic error in an interview is the personal beliefs of participants (e.g., beliefs about educational theories). The researchers tried to avoid discriminatory influences and to achieve the validity of the method. Researchers studied carefully the interview guide, included exhaustive details for the formulation of each question and studied a detailed guide on what constitutes an adequate and inadequate response. Teachers when they were assured themselves of the confidentiality of their personal data, which would include only their small name, they answered questions which were similar for all. Their answers were recorded through a recording device and researchers retained written notes with some comments.

### **4. Data collection procedures**

Upon sending emails to all teachers who participated in this study the researchers coordinated the dates, times (either after school or during the teacher's planning period) and places (all were interviewed at the school). The researchers to meet the 12 teachers who agreed to be interviewed, they subsequently travelled to the respective school and conducted the interviews. They recorded each interview using the voice memo app of an iPod. The extended study also provided insightful information because the teachers took the time to condense their perspectives into shorter responses. A few days before the interview, teachers received ordinary instructions and they informed about the scope of interview and their possible responses (pilot study).

1. The first step included reading out each question two or three times allowing a short pause so that the teachers could understand and received the primary stress.
2. The second step included reading out each question two or three times and having the teachers to use short and meaningful responses.
3. The last step included going through the question list with the opened-questions and giving examples as an explanation of their responses. After this pilot session teachers were ready to respond honestly. In collection data, there was no limiting factor (e.g., incomplete answers) for the alteration of the results.

### **5. Data analysis**

Researchers analysed the data which they began by identifying general themes (e.g., they identified who amongst the participating teachers tended to be proponents or opponents of using theatrical play in their class and whether they shared similar opinions. In the next step, they proceeded to identify teachers' opinions on using theatrical play activities as a pedagogical method for social skills development. They identified similarities and differences between teachers opinions and paid attention to which specialisation of teachers tended to using more this support. The analysis and

coding process utilised triangulation. By analysing different responses to the same questions, certain themes arose. The teachers who agreed to be interviewed had a lot more to say and provided more data. To code the data, the researchers looked at the teacher's responses to each question to see if any similarities or patterns arose in their answers. The first step after coding the data was they analysed the data further to see if any of the codes could be combined. The second step was to reevaluate the codes to establish themes and determine whether any codes or themes needed to be added, changed or combined, or completely deleted. The responses were processed using the in-depth interview method. The thematic section with closed questions processed on a five-point scale (Likert). The findings will be examined in results.

## 6. Results

The following are the results of the research on the teachers' perspectives on theatrical play for ASD students social skills development in school. To make these connections have been included the teacher interviews or survey responses that were worth noting. Teachers denote that the majority of ASD students operates in their own personal way in the classroom and that is an important challenge for teachers to promote them social awareness and responsiveness. Classrooms are social environments in which ASD students have the opportunity to interact and communicate with other students effectively. This can intensify the anxiety and depression ASD students may experience. On this basis, there are several distinctive educational approaches, which teachers use to help ASD students to develop their social skills with success. According to the teachers, there are a few strategies to help ASD students. Students with ASD appreciate routine. If teachers are setting up classroom systems geared towards autistic students, chances are all students will benefit. ASD students can get overwhelmed when given list-style selections, so for that reason teachers need to try to use few choices. This helps declutter the landscape and yet still allows ASD students to make a decision. Demographic characteristics of the teachers are presented in Table 1. The analysis of the most important reports of the teachers for the first two sections of the interview is presented in the next two subsections.

**Table 1. Demographic characteristics of the teachers**

Categories	N = 12	(Six) Integrated co-teachers	(Six) Physical education teachers
Work experience (years)		8.14	11.8
Teaching hours per week		6.7	3
Cooperation with parents		5	6

Four of the six integrated-co teachers have a degree in special education. More specifically, a teacher has a postgraduate degree in speech therapy, two in the field of developmental disorders and one on the integration of students with special educational needs. As far as Physical education teachers, two of six have attended 400 hours seminars on special education, while three have not dealt with the subject of special education. One of them also has a degree in the field of social work. Most of the teachers (75%) work in the same schools for more than 10 years and 33% of them work in their class over 5 hours a week with ASD students. All of them had almost daily communication with the parents (91.7%), while only 5 of the 12 teachers have experience with the theatrical play. Theatrical play in schools is most effective when teachers have made informed choices to plan educational sessions. In that way, ASD students are encouraged to appreciate it as a special event for which they are being prepared. In this study, teachers present less experience with the theatrical play and that is a deficit for the educational modernisation. In addition, ASD students have fewer opportunities to participate in new activities which have the ability to improve their social profile.

### **6.1. Cooperation and communication on theatrical play**

Ten of the twelve teachers agree that each ASD student is unique and their needs reflected differently but the social interacting experience and communication have the same worth both students with and without autism. The improvement of typical students on learning are high but the ASD student's make the best learning progress in general classes. The classes are social environments, where all students with and without ASD have the chance to interact and communicate. Lesson plans contain several activities to reinforce the concept of social skills development. Activities include movement, art and music, and they can stand alone or be adapted to tie in with teachers current curricular themes. This requires that teachers need to have an array of adjustments and resource options which can be implemented in a school class environment. As a result, the ASD student will be able to act in different social situations and communicate, make friends, learn from others and develop hobbies and interests and help with family relationships and give him a sense of belonging. Good social skills can improve students with ASD mental health and overall quality of life. Social skills activities work best according to the teachers when used in smaller groups. They set up activities usually as stations and students run each station or used stations concurrent with other independent station activities.

#### **6.1.1. According to an integrated-co teacher**

Social ability builds on imitation and reciprocity skills. If an ASD student has strong receptive and expressive language he can work on social referencing and attend behaviours of others, he can learn that when the class stands to salute the flag, he stands and salutes too.

#### **6.1.2. The same response was given by a physical education teacher**

Social skills challenges are a two-way process for all students with ASD, and they may be expressed as deficits or excesses (...) we need to provide support and encouragement in real conditions because social behaviour requires social understanding. A useful activity is to tell students to create a picture and give them the theme. Each student will get a turn to add an item to the picture. We select the first student, if that student is done, they pick the next student and we continue until everyone has had a turn.

Eight of the twelve teachers believe that flexible thinking is often challenging for ASD students. In each lesson, teachers try to follow agreed-upon rules for discussions (e.g., listening to my students and speaking about the topics and texts under discussion). Through social skills instruction, teachers can give students with ASD more behavioural choices, choices that are healthier and more productive for them. Teaching new ways of thinking, makes students feel happy. This prospect can have a transformative effect in the classroom. Ten of the twelve teachers agree that cooperative learning is a powerful teaching strategy in the school environment for students. In addition, they have emphasised cooperative learning for ASD students because a significant percentage of them face great difficulties in communication, social contact and relationships. Activities in small groups are an important part of learning because it develop contacts and emotions. All activities need to be original to attract the attention, and the content must be including sound, colour and music. Theatrical play includes strong educational characteristics, such as imitation, roles and multiple kinetic themes while simplified mimic activities are enhancing ASD student's imagination and social behaviour.

An important role in the promotion of cooperation plays teachers attitudes. A great teacher is sensitive to their ASD students' needs and loving what they do and he must be dedicated to them, with an unwavering commitment to their education and well-being. It is easy for a teacher to be enthusiastic about teaching when all things in his class are going well but teaching is not always easy. According to an integrated-co teacher, the teachers should not follow the high road, of stereotypical teaching methods, so they need to try to personalise as much as possible the activities of their lesson, so they do not penalise anyone (e.g., a girl with ASD participated in a school activity, but a number of students did not want her in their group because they believed that they will lose the game. In this

case, the teacher believes that punishment has opposite results and she thought to ask girls from her class to cooperate with her and also they give her a role. This was a chance for all to work as a team and they guide her for the final goal. In the end, the difference was obvious).

Albeit, there is an ambiguous stance from a number of teachers about learning strategies and promoting bi-directional communication between students, an integrated-co teacher believes that:

I try to emphasise through visual means at the early stages of interactions with ASD students for better learning results. If I want to develop cooperation in my class, I encourage my students to use painting, images of books, visual signals and work all together in an activity for better communication.

All teachers agree that they select teaching strategies that will support their students to achieve their goals. An important percentage of them search new strategies that may be more effective. They all have basic beliefs, assumptions and different behaviour but they try to provide their ASD students different perspectives and to share their ideas, knowledge and experiences altogether with main goal the social skills development.

## **6.2. Understanding instructions and behaviours in theatrical play**

Teachers encourage student-centred learning by allowing students to share in decisions in groups, believing in their capacity to lead autistic peers. This child-centred approach promotes the right of the child to choose, make connections, communicate and gives students the freedom to think, explore and search for answers. The theatrical play is an activity consisting of a play which contains a sequence of acts. Each act contains one or more role-parts. Each role-part associates one role with one activity or activity structure.

Students with ASD through theatrical play discover themselves and develop their communication skills. They impersonate fantastic characters and create through cooperation in small stories. In addition, they have the flexibility to replace one object with another, such as to use a box as a telephone or to impersonate a profession. Conversely, they respond when others play symbolically (e.g., they laugh when someone impersonates a dog). The fantastic aspect of objects can help students to understand meanings and gaining experiences. The theatrical play has no winners or losers, and that is the difference from other types of play. Improvisation has an important role in play because students have the ability to express free themselves. The transformation of verbal communication to physical helps students to redefine their relationships. Roles promote cooperation and sociability and bring all participants into a single group.

### **6.2.1. According to an integrated-co teacher**

Students with ASD who attend general school classes' responds well to the verbal communication, instructions, questions, clarifications, etc. The teachers try not to use terms, abstract concepts and speak slowly when they address them. Voice tone is an important part (...).

### **6.2.2. According to a physical education teacher**

Theatrical play affects both speech and body. That means that content has more kinetics elements and less verbal, so the meaning evolves through the movement. The instructions are more descriptive and less verbal. On the other hand, a physical education teacher's opinion is that ASD students work better through visual instructions, but if activities are performed in the schoolyard, teachers have to face several limitations because space is large and the noise is big. This means that ASD students cannot concentrate and lose control. Each course adapted according to ASD students age, and the mental level. Activities must include characteristics as a) creation, (something is created individually or in groups), b) presentation (creation is presented to the group) and c) response (the presentation is commented, feedback and reworking). This logic gives team members the opportunity to work as 'individual' as 'overall'.

### 6.2.3. The same opinion is presented by another physical education teacher

I try every day to adapt my activities for each of my ASD students and I do not make an exception. The most difficult is that these students are more anxious and angry than the other students. They ignore anything that they do not understand. In this case, I try to use visual means, like cards. Sometimes I create a student-centred didactic style and I have great results because students work in a group and undertake risks and roles.

All teachers who respond the questions about the theatrical play activities seem to agree on the fact that the theatrical play can lead to increased self-confidence in students with ASD. Teachers believe that theatrical play building good relationships between students and can greatly reduce stress and anxiety in their life. Communication skills are the key for ASD students to develop friendships and to build social consciousness. Teachers also encourage them to take care of their own needs and develop respectful behaviours of the needs of others. The purpose of theatrical play is not just to have fun but is used of teachers to success goals of students. It seems that the contact between students with and without ASD through the theatrical activities contribute to their behaviours change. A point of teachers view is the willingness of students with and without ASD to co-exist in a joint play-based activity. An important parameter for goals to succeed is the adaptation design and the implementation of modern teaching techniques (e.g., imitation and symbolism).

### 6.3. Theatrical play and school curriculum

The third section of the interview included three closed-questions about the role of theatrical play as a pedagogical method at school and the effect it has on social skills development for ASD students. All responses were given on a five-point scale (Likert). Each of the three questions had different verbal calibration and was analysed separately. Descriptive statistics about the responses of the teachers are presented in graphs 1, 2 and 3.

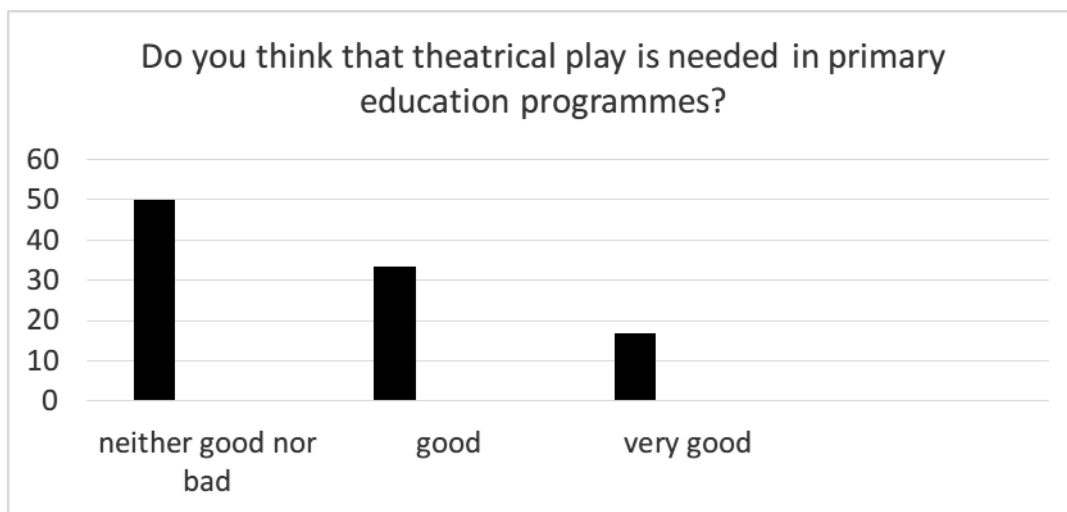


Figure 1. First closed-question

According to Figure 1, 50% of teachers responded to the 'good' option, and they believe that the theatrical play is an useful activity at school. The 33.3% of teachers responded to the 'very good' option. Only two teachers (6.7%) had an ambiguous opinion. None of the teachers gave negative answers. This evolution validates the use of the theatrical play as a particular teaching method in social skills development. It is worth noting that there was no missed answer. As regards the specialisation the physical education teachers seem to support more confidently to use the theatrical play as a teaching method in school. This differentiation arises from the fact that the physical



education has the ability to support more successfully movement, music, roles, etc., than the classroom lessons.

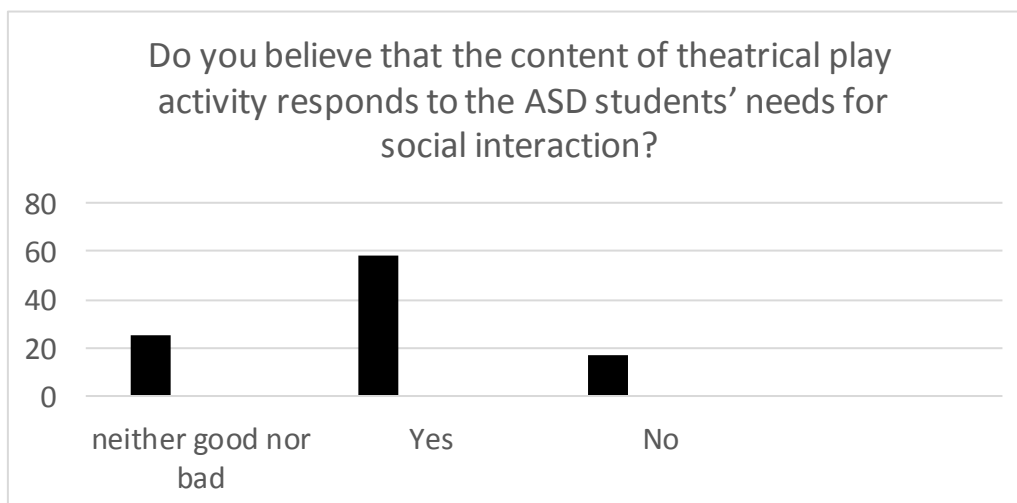


Figure 2. Second closed-question

Seven of the twelve teachers responded (58.3%) to the 'yes' option. This percentage indicates that teachers have a basic knowledge for this activity and therefore give a more confident answer. In addition, 3 of the 12 teachers (25%) do not have a clear opinion on this question, because they choose the answer 'neither good nor bad'. Only 2 of the 12 teachers were absolutely responsible for their choice by answering 'No' (16.7%). Teachers, as reflected in their responses, agree that the activity develops liberation, thinking, self-control and conceptual autonomy to ASD students.

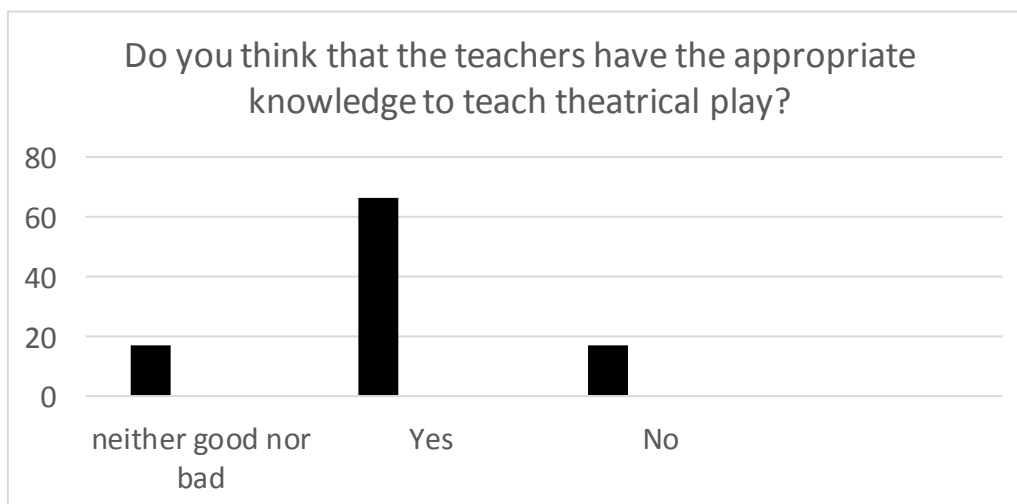


Figure 3. Third closed-question

Eight of the twelve teachers (66.3%) responded to the option 'yes'. Two of the twelve teachers did not have a clear opinion on the question as they chose the answer 'neither yes nor no', (16.7%) and two responded 'No' (16.7%). Based on teacher specialisation, integrated-co teachers are fully satisfied with their knowledge of theatrical play. On the contrary, the responses of physical education teachers are shared between neutral and positive trends. It is worth noting that there was no missed answer.

## 7. Discussion

In this study were presented the views of 12 teachers in how theatrical play affect students with ASD in terms of learning basic areas of social skills development. Teachers seemed to have positive views on theatrical play, and it seems that they choose to use it in their class. Moreover, they believe that this is an alternative way of teaching ASD students it is a suitable mean of learning in primary school as it includes the game. Several of teachers in this study think that this method has a great impact on strengthened students with and without ASD in primary school. In addition, they believe that the theatrical play constitutes a motivation for cooperative learning because the students work in groups and amuse together. In general, students with ASD seem to share things with the other students. This strengthens their opportunity to concentrate and at the same time, they manage to communicate in the school environment.

Students with ASD when participated in a theatrical play programme, usually they try to be obedient, but many times teachers observe that they are uncomfortable if school environment has too much noise, but in any case through theatrical play, students and teachers feel better and thereby improve their social interaction (Barak & Feng, 2016). Reading, Reading, Padgett, Reading and Pryor (2016) in their research studied the role of theatrical play in social interaction of ASD students within school groups and the relationship between this activity and interpersonal relations in communication. The result of this activity seems to enhance social interaction because each student with ASD has the ability to differentiate and modify his behaviour and the teachers seem to be highly adaptable in this work. Teachers develop in these programmes social skills with the help of instruction, knowledge of ways. Theatrical play can support day-to-day activities and the ability to teach autistic students as well as teachers may open a new era for primary education. In this study, the research hypotheses of the researcher were confirmed, since they compared with relevant research which was done in the past. This survey covered this research gap and presented the views of 12 primary education teachers. Participants seemed to have a positive response in terms of theatrical play and its application to students with ASD.

Notable features of this study that expand the literature include (a) participation of elementary school-age ASD children who have limited social skills and play skills, (b) use of groups including the target child and their peers and (c) use of a checklist to note the occurrence or nonoccurrence of social interactions across conditions. In prior studies, target ASD children have often been preschoolers or adolescents or those with low functioning levels (Feng, Whalon & Yun, 2017; Gal, Lamash, Bauminger-Zviely, Zancanaro & Weiss, 2016). For example, the overall occurrence of appropriate social skills increases when the intervention was in place and the ASD children appeared to enjoy the theatrical play activities more after training, according to the observations of their play with their peers. These outcomes suggest that for children with more limitations of social skills, teachers may need to implement strategies as well as build more specific activities as a part of the theatrical play programme for social skills training. Thus, they might need to use a reinforcement system for social interactions in play sessions as well as for developing social skills. Other positive effects of the theatrical play training in public school settings is that it has become an aid for typical children to initiate effective interactions with ASD peers. Theatrical play activities might also provide opportunities for ASD children to observe similar-age typical children play with each other in school environments focusing exclusively on group teaching such as the physical education lesson (Nguyen & Larson, 2015).

## 8. Conclusion

The theatrical play is a pedagogical method which is useful to face up difficulties of students with emotional and developmental disorders, only when the content of the play is adapted according to the special needs of students. According to the teachers, the activities of play are based on an interdisciplinary plan which is necessary for students with ASD (Rosenthal-Malek & Mitchell, 1997).

ASD students through group activities have opportunities for communication and interaction and development initiatives. Social skills developed help them to improve the interpersonal communication, their feelings and to express themselves (Borremans, Rintala & McCubbin, 2010). This study provided encouraging evidence by the teachers that the theatrical play programme helps ASD students support with their peer's development in creative, social and communicative skills. In particular, ASD students participate in groups, made imaginative contributions to verbal and physical representations and engaged with abstract ideas (Zhang Peluso, Gross et al., 2014). Theatrical play programmes are given a concrete structure and can be a powerful educational tool for ASD students.

## 9. Recommendations

Despite the promising results, the study did not use a large sample of different specialisations, was limited by a small sample of two specialisations, and did not include teachers from high education. A future study will address these concerns to a much larger sample which will examine multiple theatrical play activities to promote maintenance and generalisation of the social skills on ASD students and will examine new strategies which will produce interactions.

## Appendix A

Eq. (A.1) Protocol of teachers' interview

Date:

Sex: Male  Female

Specialisation: Physical Education teacher  Integrated classroom teacher

Class:

Work experience with ASD students: 1-2  2-3  3-....

Teaching hours per week with ASD students:

Cooperation with parents: Yes  No

Categories	Questions and probes
Cooperation/communication in theatrical play	<ul style="list-style-type: none"> <li>Does the student participate in theatrical play activities? If yes, how have you characterised his or her behaviour within the group?</li> <li>During the theatrical play, the student communicates and cooperates with other students? Can you give an example?</li> <li>Have they enough opportunities for developing personal initiatives? How do the other students feel?</li> <li>Reproduce students the same behaviour several times within the activity?</li> <li>Accept students the encouragement from other classmates?</li> </ul>

<p>Instructions and aggressive/positive behaviours in theatrical play</p>	<ul style="list-style-type: none"> <li>• Does students' participation in theatrical play activities have the element of sharing? Reproduce sharing element several times in activity? In what ways?</li> <li>• In what way are the instructions given to the students? Verbally, visually or using cards? Can you give an example?</li> <li>• Is feedback provided directly to the students? Feedback encourages students when provided by the teacher or by the other students?</li> <li>• How is their relationship with the other students? What are usually the reasons for their aggression?</li> <li>• When they feel aggressive, how do they react to the teachers?</li> </ul>
<p>Theatrical play and school curriculum</p>	<ul style="list-style-type: none"> <li>• Do you think that theatrical play is needed in Primary Education programmes? In what areas of education could it contribute?</li> </ul> <p style="margin-left: 20px;">                     Neither good nor bad <span style="float: right;"><input type="checkbox"/></span>                      Good <span style="float: right;"><input type="checkbox"/></span>                      Very good <span style="float: right;"><input type="checkbox"/></span> </p> <ul style="list-style-type: none"> <li>• Do you believe that the content of theatrical play activity responds to the ASD students' needs for social interaction?</li> </ul> <p style="margin-left: 20px;">                     Neither good nor bad <span style="float: right;"><input type="checkbox"/></span>                      Yes <span style="float: right;"><input type="checkbox"/></span>                      No <span style="float: right;"><input type="checkbox"/></span> </p> <ul style="list-style-type: none"> <li>• Do you think that the teachers have the appropriate knowledge to teach theatrical play?</li> </ul> <p style="margin-left: 20px;">                     Neither good nor bad <span style="float: right;"><input type="checkbox"/></span>                      Yes <span style="float: right;"><input type="checkbox"/></span>                      No <span style="float: right;"><input type="checkbox"/></span> </p>

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