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AN INNOVATIVE TEACHING METHOD TO IMPROVE THE FUNCTIONING OF CHILDREN WITH AUTISM SPECTRUM DISORDER: A COMPARATIVE ANALYSIS BETWEEN STORYTELLING AND SHADOW THEATER

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Abstract

Autism Spectrum Disorder (ASD) is the generic term given to a group of neurodevelopment disorders that are all characterized by two criteria, ongoing disabilities in social communication-interaction and behavior (Ousley & Cermak, 2014; Diagnostic and Statistical Manual of Mental Disorders. 5th ed., 2013 (DSM-5). Improving the skills of children with ASD requires special teaching methods and interventions. This paper is based on a study that compared two methods of teaching autistic children. The aim of this research was to examine the use of an innovative form of interactive Shadow Theater, accompanied by music, dubbing and narration as a means of intervention with children diagnosed with autism compared to the classical teaching of storytelling in terms of developing and improving behavior and social and cognitive skills. During one school year children were alternatively exposed to a set of stories and songs using the two above mentioned methods. Four hypotheses were posed concerning whether Shadow Theater or classroom storytelling was more effective in terms of determining appropriate emotional reactions, learning reactions, improving cognitive awareness and decreasing inappropriate behavior reactions. The overall findings show that in each of these four areas Shadow Theater was a more effective teaching method than the traditional methods of classroom storytelling.

Keywords: Autistic Spectrum Disorders (ASD), learning, behavior, emotional functioning, shadow theater.

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Introduction

Autism Spectrum Disorder (ASD) is the generic term given to a group of neurodevelopment disorders that are all characterized by two criteria, ongoing disabilities in social communication-interaction and behavior (Ousley & Cermak, 2014; DSM-5) Cognitive, social and emotional development are interwoven fields that are crucial to the development process of children as social beings. Autistic children's difficulties in social relationships, situations and communication as well as non-adaptive behaviors are often an expression of the way they perceive and understand the world through their cognitive processes. In particular, they have difficulty understanding social norms and rules, and the application of these rules when interacting with others. The verbal communication of children with ASD is typically repetitive and they have limited patterns of behavior and areas of interest, displaying a compulsive adherence to order, bursts of anger and what appears to parents and other people as disobedience. These behaviors are sometimes linked to sensory overload (Gal et al., 2007). ASD can affect children of all ranges of intelligence and some may show special abilities well beyond their age (Zachor & Ben Itzchak, 2010).

Emotional Functioning - The emotional development process of all children is crucial to their development as social beings. Children with ASD have difficulty in expressing emotions. Emotions can be expressed in four different manners (Mishori, 1992): *Facial expressions* –children on the autism spectrum do not use appropriate facial expressions or make eye contact with others in order to express their feelings. *Vocal expressions* - their range of vocal expressions is limited, as are the tone, rhythm and intensity of speech. Often, vocal and speech expressions are idiosyncratic and can only be understood by parents or caregivers. *Body movements* -appropriate body gestures are rarely used in order to express emotions. *Behavior* is another form of emotional expression and is discussed below.

Cognitive Awareness Disabilities - Cognitive development refers to a process of learning based on thinking, emotions, and social awareness. These components are in a constant process of mutual influence. However, with autistic children, this development is impaired and leads to difficulties in communication and non-adaptive behaviors, which reflect how they perceive and understand the world.

Behavioral Difficulties - The behavior of children with ASD is often characterized by rigidity, repetitive and stereotypical movements, and insistence on trivial details, difficulties in self-control and in predicting the long-term consequences of their behavior (Ozonoff, Pennington and Rogers, 1991).

Learning and Language Disabilities **-** In children with ASD, processing of information tends to be fragmented. This makes it difficult for them to find meaning in different contextual situations. A child with ASD will focus his/her attention on a single item, which is not necessarily the relevant item in a certain situation. (Frith, 1989). They have gaps in their language development processes (Tager-Flusberg, 2004): language and speech are acquired late; the speed of development is much slower and even the quality of development is different.

Language acquisition is characterized by patterns, lack of creativity, flexibility and generalization of new situations. (Burman, 2008)

It is imperative that we attempt to find new methods to improve the functioning of these children so that they can have an independent, socially-engaged and fulfilling life, as much as possible. Contrary to the promotion of non-discrimination and tolerance towards all, persons with ASD can often face prejudices and rejection, and may be talked about in a language that may enhance their social exclusion, a language that is ambiguos when it comes to semantics, even if this type of language is used by professionals who should be supporting them (Goian, 2010; Tomi?a & Goian, 2009). When communicating with beneficiaries (children with ASD, their parents) professionals can face cultural issues which charge linguistic differences that may affect the professional relationship (Goian, Vintila, Bucur, 2012).

Teaching children with ASD

The main learning aim is to realize the full potential of each child, to lead a fully, independent life, as much as possible. The three common methods for learning in schools for children with ASD (and in the one where this research was conducted) are as follows: (1) *ABA* - Applied Behavioral Analysis or "Intensive Behavior Intervention", is a therapeutic program that focuses on language and communication development, as well as cognitive, motor, activities of daily living and social skills (Baer & al. 1968); (2) *PECS* - Pictures Exchange Communication System is also known as "Augmentative Alternative Communication." The method is particularly suitable for children whose performance capabilities are better than their verbal abilities (Charlop-Christy & al., 2002); (3) *TEACCH* - Treatment and Education of Autistic and Related Communication Handicapped Children. This includes a combination of visual accessories which demonstrate for the child what to do, how to do it, and what the desired results of his or her actions should be. (Schopler & Reichler, 1976).

Storytelling and Songs as a therapeutic learning method

Storytelling is a classic teaching method which is based on visual literacy or reading through demonstration. The storytelling technique addresses a child's senses and involves the use of visual representations as a tool to transmit messages and meanings. (Hauser, 1951; McLuhan, 1994; West, 1995, Debes, 1968). The essence of the concept is the ability to understand and use visual images for thought, learning and expression (Stahlț , Stahl & McKenna,1999ț; Stahl, 2004ț). In order to understand the more complex ideas in the story, there is a need for a more profound multi-dimensional learning (Stahl, 2004țț) that can enable a child to develop new connections and insights and contribute to reshaping previous structures of meaning (Nikolajeva & Scott, 2000ț).

Use of Shadow Theater with Children with ASD

Traditional Shadow Theater plays originated centuries ago and consist of familiar stories of folklore and mythology (Shulman, 2003). Today, electric lamps are used to create and present silhouettes (Raz, 2003). Regarding autism, research has shown that much benefit can be gained from such theater (Ben Israel and Mossenson Nelken, 2009). In this study, the researcher created "Shadows" based on a Chinese Shadow Theater play with interactive characters that moved autonomously or were controlled by the children. They chose the shadows and superimposed them on the screen. The study focused on how the children could integrate their behavior and experiences with elements of the story. The innovative foundation of this research is the use of Shadow Theater that included a number of elements such as color, shape, size and music and is based on the Augmentative & Alternative Communication (AAC) learning method. To our knowledge, no research involving the use of Shadow Theater to treat and teach autistic children has been done.

Methodology

Research Aim and Hypotheses

The goal of this study was to compare the effectiveness of the Shadow Theater intervention to the traditional method of storytelling to develop and improve the social skills of children with ASD. In order to understand the specific areas where improvements can be achieved by the Shadow Theater intervention lasting for one school year, several hypotheses were elaborated:

- Shadow Theater intervention will encourage the children to have more appropriate emotional reactions than storytelling.
- Shadow Theater intervention will encourage the children to have less inappropriate behavioral reactions than storytelling.
- Shadow Theater intervention will encourage the children to have more cognitive reactions than storytelling.
- Shadow Theater intervention will encourage the children to have more Learning reactions than storytelling.

Participants

The research took place at a special education, elementary school for children on the autistic spectrum in Israel, with a total of 57 pupils. Their ages ranged between 7 and 13. They were divided into 9 different classes. The student population had different backgrounds in terms of age, gender, cognitive functioning level, and motivation and autistic behavior characteristics.

Procedure and Research tools

A mixed method was used to collect quantitative and qualitative data. The story telling and shadow theater activities were videotaped and then evaluated according to the PLFAS (Pupil's Functioning in Lesson on Autism Scale) which is a structured observation tool. With autistic children, verbal communication and level of thought are impaired and the main parameter for measurement is behavior itself. (Krathwohl, 1993; Stake, 1995). Teachers and other professional staff acted as observers and were instructed to focus on learning, social and communication behaviors which they recorded on structured forms that enabled them to identify skills grouped into areas. The level of performance of every skill was marked according to a 1-5 scale.

The areas and skills to be studied as they appeared on the observation forms were as follows: Cognitive area: carries out instructions well; understanding presented material - for example, if a child shows insight or repeats content. Emotional area: Facial expressions – smiles or displays signs of any other emotion such as sadness, anger, crying, etc. Accepting authority and following rule. Behavioral area: How relaxed and attentive pupils are, how long they sit, are they attentive, interaction with friends and physical interaction, Mobility. Learning area: Test what was learned in the lesson/activity - name of book, song, dilemma, etc.

Questions relevant to the work: who, what, why, where etc.

In order to examine the effect of various characteristics on the activity using Shadow Theater, a program was devised in which children were exposed to a new work every week with different content, music and color characteristics. All the stories were relevant to the characteristics of children with ASD and focused on specific behaviors or life situations. The activities presented the children with a desirable solution to a situation that they would likely experience so as to improve their ability to manage similar situations in the future.

Below in *Table 1* is the order of plays viewed by the children, with characteristics defined for each. The children observed the story in Shadow Theater as well as heard and read it in class during the same week. Some of the children first watched the Shadow Theater and then listened to the storytelling while others were first exposed to the storytelling format and then to the Shadow Theater.

Table 1: Summary of the intervention phases

phase	Item	Content	Color	Music	test
Week 1	Flat to Rent	Story	Black/white	With	PFLAS
Week 2	The Fisherman and Goldfish	Story	Color	Without	PFLAS
Week 3	Yael's House	Story	Color	With	PFLAS
Week 4	Confused Balloon	Song	Color	With	PFLAS
Week 5	Old McDonald Had a Farm	Song	Black/white	Without	PFLAS
Week 6	Behind a Mountain	Song	Black/white	With	PFLAS
Week 7	Five Monkeys	Song	Color	Without	PFLAS
Week 8	The Hungry Caterpillar	Story	Black/white	Without	PFLAS

Results

Comparison of the children's reactions to a Show Theater activity compared to classroom storytelling:

Hypothesis 1: Shadow Theater interventions will encourage the children to have more appropriate emotional reactions than storytelling.

Table 2: Comparison between Shadow Theater and storytelling in emotional reactions of PFLAS (Pupil's Functioning in Lesson on Autism Scale)

Story	Shadow Theatre		Storytelling		Wilcoxon Signed	
	M	S.D.	M	S.D.	Z	Sig
Flat for Rent	3.79**	1.03	3.41**	1.12	-2.95	0.0030
The Fisherman and the Goldfish	3.9*	0.81	3.64*	1.11	-2.0200	0.04
Yael's House	3.9**	0.95	3.32**	0.90	4.22-	0.0000
Confused Balloon	4.53**	0.65	4.02**	0.72	-4.79	0.0000
Old MacDonald Had a Farm	4.62**	0.48	3.66**	0.61	-5.17	0.0000
Behind a Mountain	4.28**	0.37	3.76**	0.53	-3.92	0.0000
Five Monkeys	4.16**	0.48	3.53**	0.50	-4.68	0.0000

(*p<0.05*, p<0.01**)*

This table presents emotional reactions to Shadow Theater activities in comparison to classroom storytelling. In seven of the eight activities, a significant difference was found in emotional activity. In all activities, emotional activity in the Shadow Theater was higher than in storytelling. The average score of emotional activity in the Shadow Theater was between M= 3.79 and M = 4.62, whereas emotional activity in traditional storytelling was between M = 3.32 and M = 4.02. Based on the findings, it can be stated that most of the children in the different age and functioning level groups expressed their emotions more and in more appropriate ways in Shadow Theater activity than in storytelling class. They smiled, laughed, and generally showed more appropriate facial expressions. These findings support the hypothesis that a Shadow Theater intervention will encourage children to more emotional reactions than storytelling.

Hypothesis 2: Shadow Theater intervention will encourage the children to have less inappropriate behavioral reactions than storytelling

Table 3: Comparison between Shadow Theater and Storytelling in behavioral reactions of PFLAS (Pupil's Functioning in Lesson on Autism Scale)

Story	Shadow Theatre		Storytelling		Wilcoxon Signed	
	M	S.D.	M	S.D.	Z	Sig
Flat for Rent	3.00**	1.03	2.59**	1.00	-3.07	0.0020
The Fisherman and the Goldfish	3.16**	0.86	2.85**	0.74	-2.9700	0.00
Yael's House	2.83**	0.84	2.15**	0.80	-3.99	0.0000
Confused Balloon	3.52**	0.79	2.80**	0.74	-4.26	0.0000
Old MacDonald Had a Farm	3.44**	0.67	4.38**	2.64	-3.72	0.0000
Behind a Mountain	3.46**	0.65	2.74**	0.73	-4.62	0.0000
Five Monkeys	3.19**	0.65	2.53**	0.65	-4.79	0.0020

(p<0.05, p<0.01**)*

The table shows that in seven of the eight activities there was a significant difference between the children's positive behavioral reactions when comparing storytelling and Shadow Theater. In all the stories with the exception of one (Old MacDonald), there were more behavioral reactions in Shadow Theater than in traditional storytelling class. In most activities, the average reactions in storytelling were between M= 2.50 and M= 2.85, whereas in Shadow Theater activity, the average behavioral reaction in most stories was between 3.16 and 3.52. The findings demonstrate that in most activities there was a significant behavioral difference between storytelling and Shadow Theatre. The children were more active in Shadow Theater and demonstrated more involvement. They concentrated more on the activity shown on the screen and reacted to what was

happening by waving their hands, applauding and repeating words from the songs. They were more connected with others, for example, exchanging cries of encouragement. In contrast, the children were much more passive during traditional storytelling class. These findings support the hypothesis that a Shadow Theater intervention will encourage children to greater behavioral reactions than storytelling.

Hypothesis 3: Shadow Theater intervention will encourage the children to have more cognitive reactions than storytelling.

Table 4: Comparison between Shadow Theater and Storytelling in Cognitive reactions of PFLAS (Pupil's Functioning in Lesson on Autism Scale)

Story	Shadow Theatre		Storytelling		Wilcoxon Signed	
	M	S.D.	M	S.D.	Z	Sig
Yael's House	3.43	0.88	3.03	0.97	3.08-**	0.002
Confused Balloon	4.12	0.85	3.62	0.99	-3.85**	0.000
Old MacDonald Had a Farm	3.52	0.97	2.99	0.84	-3.43**	0.010
Behind a Mountain	3.5	0.69	3.27	0.89	-2.21*	0.027

(p<0.05, p<0.01**)*

Table 4 shows that in four different activities there were significant differences in cognitive skills. It is interesting to note that the cognitive differences that were found in three of the four songs presented over the school year were each characterized by many repetitions of numbers or sounds. Thus, it appears that it is easier to stimulate cognitive awareness when dealing with repetitions. In the story "Yael's House", lots of music and color stimuli were used when presented in Shadow Theater and generated more cognitive activity than in storytelling.

Cognitive activity is expressed to a large extent when children understand presented material and can follow and complete instructions well. For example, this occurred when a child proposed something during a performance or repeated the content of an activity during or after it took place. Cognitive ability was also demonstrated when the children were exposed to animal sounds, as in the song "Old MacDonald", and repeated the sounds in the song. The findings demonstrate that when children were exposed to a song or story in a Shadow Theater activity with many stimuli, they understood the content of the activity significantly better than in storytelling. These findings support the hypothesis that a Shadow Theater intervention will encourage children to more cognitive reactions than storytelling.

Hypothesis 4: Shadow Theater intervention will encourage the children to have more learning reactions than storytelling

Table 5: Comparison between Shadow Theater and Storytelling in Learning reactions of PFLAS (Pupil's Functioning in Lesson on Autism Scale)

Story	Shadow Theatre		Storytelling		Wilcoxon Signed	
	M	S.D.	M	S.D.	Z	Sig
The Fisherman and the Goldfish	90.85	12.93**	78.51	11.27**	-3.8400	0.00
Yael's House	89.74	11.73**	83.91	15.51**	-3.17	0.0010
Confused Balloon	90.2	11.40**	80.31	13.31**	-3.45	0.0010
Behind a Mountain	90.11	10.10**	85.45	11.58**	-2.80	0.0050
Five Monkeys	92.8	10.61**	85.68	14.20**	-2.61	0.0090
The Hungry Caterpillar	88.45	16.62*	84.05	16.98*	-2.11	0.0340

($p<0.05$, $p<0.01$**)*

This table shows that in six of the eight activities a significant change in children's learning was observed in Shadow Theater compared to storytelling in class. In each of these activities, results in learning tests were higher in Shadow Theater (range on average between M=88 and M=92) compared to storytelling (range on average between M= 78 and M=85). The children recalled more story facts when it was presented in the form of theater. Moreover, when children watched a story performed in the Shadow Theater first, while the same story was told in class, they hummed songs, voiced sounds and recalled the way it was shown on the screen during the Shadow Theater activity. The findings indicate that children's learning ability was higher when they watched a Shadow Theater activity and support the hypothesis that a Shadow Theater intervention will encourage more learning reactions from children than storytelling.

Conclusions

Working with children with ASD is a challenging task. These children have difficulties in communicating and social interaction. They are withdrawn from their surroundings and it is extremely important to help improve their social abilities by entering their closed world to enable them to better understand their environment. This research sheds light on an innovative means of supporting and teaching children with ASD by using Shadow Theater to improve their social communication and interaction skills. Although changes in children with ASD are very slow, nonetheless, an intervention lasting one school year shows advancement in skills they acquired in that year.

The first hypothesis considered whether the Shadow Theater intervention would encourage the children to have more emotional reactions than storytelling. When comparing the reactions of the children during storytelling activities and Shadow Theater, it was found that in seven of the eight activities they were observed to show more appropriate emotions: smiling, laughter, and hand waving/clapping that indicated a willingness to participate more than in storytelling. Thus, the above hypothesis was fully upheld.

The next area examined was behavior and the question raised was whether Shadow Theater, compared to storytelling, would encourage more appropriate behavior. Behavioral difficulties that show irregular functioning in children with ASD can be expressed in various ways: through repetitive body gestures or movements, disobedience, temper tantrums, and angry outbursts. However, the children were calmer and happier in Shadow Theater sessions than they were in storytelling classes and, according to the teachers, this resulted in a decrease of the aforementioned behavioral problems as well as in less distractions, higher concentration and more appropriate contact with one another. Indeed, the findings show that six out of the eight activities had more positive behavioral responses in Shadow Theater than in storytelling. Thus, the question whether Shadow Theater, compared to storytelling, would encourage more appropriate behavior can be affirmatively answered.

The third hypothesis concerned cognitive reactions. Cognitive awareness is one of the key problems that autistic children have. Cognitive challenges are an integral part of their emotional and social problems. Their communicative difficulties and non-adaptive behavior are often an expression of how they perceive and understand the world using cognitive processes. In this study, cognitive skills were analyzed by examining various actions of the children. These included: how well they executed instructions and comprehended presented material, for example, whether he/she demonstrated any insight or repeated content. The hypothesis was partially upheld. In only four of the eight activities was there a significant difference in cognitive reactions in comparison between storytelling and Shadow Theater. This can be attributed to the fact that when a message is captivating (like in songs) with many repetitions, it is easier to observe improvements in cognitive awareness. When messages were more complex, it was difficult to know whether the children genuinely understood the activity content on a cognitive level.

The final hypothesis involved learning reactions and whether Shadow Theater would be a more effective method to learn than the traditional method of storytelling. Generally, language is based in part on comprehension of the social context of a message and also requires a simultaneous reference to preexisting knowledge. In the school where this study was conducted, the children had different levels of comprehension. Some did not understand language at all; there were others who could only understand simple daily routine statements while there were those who could understand more complex language. In this study, testing was based on what the children learned in regular storytelling lessons and Shadow Theater by asking simple questions: ‘who’, ‘what’, ‘why’ and

'how' to determine if the children could recall the name of a book or song and its theme or meanings. The study found that the children's learning ability was higher when they watched a Shadow Theater activity. The children remembered more facts from the story when it was presented in dramatic form. Moreover, when the children first watched Shadow Theater, later during storytelling in class, they hummed songs, made sounds and repeated how the message was presented during Shadow Theater activity.

There are several key explanations than can explain why the children had a higher level of learning in Shadow Theater than in regular storytelling. In the school where the research was carried out, the teaching lessons sought to build on the children's strengths. Since children with ASD generally have good visual abilities, the school's reading program used visual illustrations. There are many benefits from this in so far as the children had the opportunity to look at illustrations which enabled them to develop new connections and insights as well as contribute to reformulating previous structures of meaning (Nikolajeva & Scott, 2000). In illustrative reading, there are more communication channels. Active listening requires that the child becomes an active player and communication partner in structuring a story (Segal, 2008). Illustrative reading with the aid of illustrations opens the door to conversation about questions regarding the text and the illustrations (Tov-Li & Frish, 2014). From an illustrative standpoint, Shadow Theater, compared to regular storytelling, was much more intensive and for the reasons stated above was conducive to greater learning. Thus, the hypothesis was upheld.

Shadow Theater, compared to storytelling, will encourage the children to more actively participate. In summary, the use of Shadow Theater activities encouraged the children to be more active and participate. It is suggested that Shadow Theater techniques should be used to improve emotional reactions, behavior, cognitive skills and learning for children with ASD.

Research Limitations

This study was carried out on a relatively small group of children with ASD. Since changes in behavioral and emotional reactions of autistic children are very minor and slow, it is also recommended that the research be repeated several times.

References

Ben Israel, M., & Mosenson Nelcan, R. (2009.) *A Heart's Desire – The elements of artistic puppet theater*. Jerusalem: Carmel Publication & The Train Theater. (In Hebrew).

Burman, E. (2008). Deconstructing developmental psychology. London and New York: Routledge.ț

CDC- On March 27, 2014, the Centers for Disease Control and Prevention https://www.autismspeaks.org/what-autism/prevalence

Charlop-Christy, M.H., Carpenter, M., Le, L., LeBlanc, L.A.,Kellet, K. (2002). Using the Picture Exchange Communication System (PECS) with children with autism: assessment of PECS acquisition, speech, social communicative behavior, and problem behavior. *Journal of Applied Behavior Analysis,* 35(3): 213-231.

Debes. (1968). Some foundations for visual literacy. *Audiovisual Instruction*, *13*, 961-964.

Diagnostic and Statistical Manual of Mental Disorders (DSM–5). Retrieved from https://www.psychiatry.org/psychiatrists/practice/dsm

Frith, U. (1989). *Autism: Explaining the enigma.* Oxford: Blackwell.

Frith, U., & Happé, F. (1994). Autism: Beyond 'theory of mind'. *Cognition, 50*, 115-132.

Goian, C. (2010). Ten Categories of Semantic Inconsequentialities in the Romanian Social Work Language. Revista de asistenta sociala, *1, 79-90.*

Goian, C., Vintila, M. & Bucur, V. M. (2012). Analysis of terminology usage for Roma people among Social Work professionals in Romania. *Social research reports, 22,* 5-27. Retrieved from https://www.ceeol.com/search/article-detail?id=115124

Hauser, A. (1951). *The social history of art*. London, UK: Routledge & Kegan Paul.

Krathwohl, D. R. (1993). *Methods of educational and social science research*. White Plains, NY: Longman.

Lindsay, M. O., & Vilayanur S. R. (2006). Broken Mirrors: A theory of autism. Retrieved from http://cbc.ucsd.edu/pdf/brokenmirrors_asd.pdf

McLuhan, M. (1994). *Understanding media*. Cambridge, MA: MIT Press.

Mead. G. H. (1934). *Mind , Self , and Society*. Chicago: University of Chicago Press.

Meichenbaum, D. (1977). *Cognitive Behavior Modification* (pp. 17-34). New-York: Plenum Press.

Ministry of Education (1998). *Director General's Circular 1998*. Jerusalem: Publications Department (In Hebrew).

Ministry of Labor and Welfare (2017). World autism awareness. Retrieved from http://www.molsa.gov.il/Dover/Pages/NewsPage.aspx?ListID=76c73ffb-5c7e-40f4-bdc1-20a68f9aa9e8&WebId=57bafbcd-ffba-4897-85eb-c3379813c505&ItemID=783

Mishori, E. (1992.) *Autism and communication Disorders – ways of educating and handling*. ALUT publications. (In Hebrew)

Nikolajeva, M., & Scott, C. (2000). The dynamics of picture book communication. *Children Literature in Education*, *31*, 225-239.

Ousley & Cermak, (2014). Autism Spectrum Disorder: Defining Dimensions and Subgroups https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4111262/

Ozonoff, S., Pennington, B. F., & Rogers, S. J. (1991). Executive function deficits in high-functioning autistic individuals: Relationship to theory of mind. *Journal of Child Psychology and Psychiatry, 32,* 1081-1105.

Raz, J. (2003.) The Indonesian shadow theater, a compilation of articles in light of the April 2003 exhibition. Holon: The Puppet Theater Arts Museum. (In Hebrew).

Rizzolatti G., & Craighero L. (2004). The Mirror-Neuron system. *Annual Reviews of Neuroscience*, *27*, 169-192.

Segal Michal , (2008) *Whatws the story? On the development of narrative competence ț*. Tel Aviv: Mofet Institute. (In Hebrew).

Shulman, D. (2003.) *The Indian shadow theater, a compilation of articles in light of the April 2003 exhibition*. Holon: The museum and school of puppet theater arts. (In Hebrew).

Stahl, K. A. D. (2004). Proof, practice and promise: Comprehension strategy instruction in the primary grades. *Reading Teacher*, *57*,598-609.

Stahl, K. A. D., Stahl, S. A., & McKenna, M. (1999). The development of phonological awareness and orthographic processing in reading recovery. Literacy, Teaching and Learning. *An International Journal of Early Literacy*, *4*, 27-42.

Stake, R. E. (1995). *The art of case study research*. Thousand Oaks, CA: Sage.

Tager-Flusberg, H. (2004). Do autism and specific language impairment represent overlapping language disorder? In M. L. Rice & S. F. Warren (Eds.), *Developmental language disorders* (pp. 31-52). Lawrence Erlbaum Associates, Inc.

Tomita, M., & Goian, C. (2009). Romanian probation system and the effect of semantics in social work. Revista de Cercetare si Interventie Sociala, 27*, 92–111.*

Tov Li, E., & Frish, Y. (2014). *The literate journey: Theory as a basis for teaching in the fields of reading and writing*. Haifa: Sha'nan, The Religious Academic College of Education. (In Hebrew).