

**Facilitation of Peer Conversational Skills among
Preschoolers with High Functioning Autism Spectrum
Disorder**

Ofira Rajwan (Ben-Shlomo)

School of Education

Ph.D. Thesis

Submitted to the Senate of Bar-Ilan University

Ramat-Gan, Israel

August, 2017

Abstract

Facilitation of Peer Conversational Skills among Preschoolers with High Functioning Autism Spectrum Disorder

Background: One of the main characteristics of children with Autistic Spectrum Disorder (ASD) is their difficulty in social and communicative interactions, especially due to their pragmatic language impairment (Landa, 2007; Paul, 2007; Simmons, Paul, & Volkmar, 2014). A main deficient pragmatic component is the difficulty in maintaining a proper conversation in terms of content, form, and context (Stefanatos & Baron, 2011). Difficulties in conversation are twofold: in discourse mechanism, such as difficulty in taking turns, initiating, maintaining and ending conversation, and in dialogue cooperation, such as topic management. All of these difficulties have implications for successful social interactions and the development of social competence.

To date, most social intervention programs have included school-aged or older children, and not necessarily preschoolers, when these abilities can best be developed (Stefanatos & Baron, 2011). In addition, most studies have included a limited number of subjects in each intervention program and without a control group. In most of these studies the conversation partners were adults, despite the importance of peer conversation to children's language, pragmatic and social development, and the importance of practicing conversation skills in naturalistic situations. Therefore, facilitating evidenced-based intervention programs to promote conversational skills for preschoolers with HFASD is of great importance (Rogers, 2000, Watkins et al., 2015).

Objectives: Therefore, the major aim of current study is to examine the effectiveness of an ecological-naturalistic RCT social intervention program to promote social conversational skills in preschoolers with HFASD, with their peers with typical development. In addition, the study examines the ability to utilize these skills in varied everyday situations.

Methods: The study consisted of 45 children aged 3- 6 years with the diagnosis of HFASD, IQ>75. The children were randomly assigned into three equal groups: an intervention group to promote social conversational skills (C), a comparison group that received intervention in another field: social interaction skills (SI), and a control group (CN), with no intervention. The intervention program was implemented in the child's

natural environment, the child's kindergarten, over a period of 6 months, twice a week in a small social group comprising of the ASD child and two typically developing age-mates and another individual meeting per a week. Evaluations of the pragmatic and conversation skills were conducted according to two semi-structured videotaped situations (a snack-eating situation and a free play situation). Coding was administered by using two tools: PRS: Pragmatic Rating Scale (Landa et al., 1992), and a theory-based coding scheme scale analyzing conversational characteristics: the "Conversational Scale" (Rajwan & Bauminger- Zviely, 2013), during the two situations aforementioned. In addition, the teacher and the therapist that conducted the intervention filled a Conversation Questionnaire (Rajwan & Bauminger- Zviely, 2013), referring to various conversational functions in the kindergarten without adult mediation. In addition, adaptive behavior competence was evaluated using the Vineland Adaptive Behavior Scales (Sparrow, Cicchetti, & Balla, 2005), staff and parent's versions.

Results: Results based on the observation during free play and snack time were promising. On the **PRS**, children in the C group significantly improved their pragmatic skills (such as reciprocity in conversation), improved their para-linguistic skills (such as using proper gestures while conversating) and prosodic skills (such as using less stereotypic phrases during conversation) compared to other groups. Children in the SI group showed significant improvement in few items of the PRS (such as the paralinguistic measure during snack time). No significant improvement was found in the children of the control group.

Similarly, the results of the **Conversational Scale** indicated a significant improvement in the quality of the social conversation function in the C group compared to the two other groups, (items such as initiating, maintaining and elaborating a proper topic during a conversation). No improvement was measured in the conversational Scale for the SI group and the CN group.

Generalization findings as reported by the teacher and the therapist conducted the intervention program on the **Conversation Questionnaires** also indicated a significant improvement in all six of the different categories of the questionnaire only for the C group (e.g.: proper conversational functioning as a speaker, and as a listener). It was also found that the significant change in the conversation group is larger in all items of the questionnaire compared to the change in the SI group and the CN group.

Unlike these above findings, no significant results were found in any of the three categories (total standard score, communication standard score, and social standard score) on the **Vineland scale**, parents and teacher. The findings in the context of these indices are discussed later in the study.

Conclusions: Based on the findings presented above, it can be concluded that the Social conversation intervention program was found to be effective in promoting pragmatic and social conversational skills. Compared with the other two groups, the participants in the social conversation intervention group showed a significantly greater improvement in various measures in which the marked change being reflected in qualitative function of conversational skills. Also, according to staff reports, generalization of skills has been proven in other spontaneous everyday situations in kindergarten, such as conversation during free play, not mediated by an adult.

It is possible that following this ecological- cognitive- behavioral intervention and accessibility of knowledge, as well as the experience gained in the intervention, the children were able to identify elements that underlie essential communicative interaction with peers. It is also possible that the familiar contexts of the intervention helped children to identify the intentions of peers in those contexts and allowed them to respond in a more **relevant manner**, so that their interactions with peers were more appropriate pragmatically and socially.

The contribution of this study is the development of a structured evidenced-based RCT intervention program to promote social conversational skills for kindergarten children with HFASD which can be implemented in educational settings. The improvement of conversational skills is critical for improving the processes of social interaction and social engagement of children in the autistic spectrum. Initiating targeted interventions at an early age may lead to reduced loneliness and increased social involvement for these children.