DiLASD

Distance Learning for Students and Kids with Autism Spectrum Disorder

IO1 – TEACHING MATERIAL
Communicating with children with ASD

Organisation: Ecoistituto del Friuli Venezia Giulia

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Introduction

Recently, there is an increasing interest in oral storytelling and drama in therapeutic and educational context.
Oral storytelling and drama demonstrated their effectiveness to develop language, comprehension emotional wellbeing, empathy, creativity, and literacy skills for children with special needs (Aristizábal, Cano, & Collazos, 2017; Grove, 2021). In this regard, Grove claims that the field of special needs has seen a number of exiting storytelling approaches that have transformed the learning experience of children and adults with a wide range of difficulties.
The positive effects of storytelling with children with Autism Spectrum Disorder has been investigated, e.g., to analyse their *Mental Time Travel* (MTT) (Ferretti et al., 2018).
Drama provides a way to educate children with ASD who have difficulties in understanding and engaging with ordinary social interaction promoting their skills in:

- Social understanding
- Social communication
- Expression and play

This topic aims at giving to social educators the basic notion on how improving communication with children with ASD through storytelling and dram.

Structure of the training activity

This training activity contain two subtopics:
1. Storytelling and autism
2. Drama and autism

The above topics have been designed to be used in a training course for social educators and social volunteers. This training course foresees the participation of social educators/volunteers.

The training course is organized as follows:
- 15 hours of remote learning activities;
- 15 hours of e-learning (self-learning);
- 10 online group activities

Methodology

ASD

The term *autism* comes from the Greek word *autos*, meaning *self*. It was first used in the expression *autistc thinking* by the Swiss psychiatrist Eugen Bleuler (1911) in relation to schizophrenia, to describe the withdrawal of schizophrenic patients into their own fantasies (Kuhn & Cahn, 2004).
The first clinical definition of autism appeared at the first half of the 20th century. Grunya Efimovna Sukhareva (1891-1991), a Soviet child psychiatrist, published a detailed description of

autistic symptoms in 1925. He article, written in Russian, was translate in German a year later (Sukhareva, 1926). She initially used the term "schizoid (eccentric) psychopathy" but later replaced it with "autistic (pathological avoidant) psychopathy" to describe the clinical picture of autism. Leo In 1943, Kanner, an American-Austrian psychiatric published the first systematic description of early infantile autism (Harris, 2018). In 1944, Hans Asperger (1906-1980) published a definition of autistic psychopathy that was similar to Sukhareva's definition. During the World War II, Asperger was a medical officer, serving in the Axis occupation of Yugoslavia. It is astonishing that some foundational ideas of autism emerged in a society that strove for the opposite of neurodiversity (Sheffer, 2018). Asperger identified the following many characteristic of autistic people:

- lack of empathy
- little ability to form friendships
- one-sided conversations
- intense absorption in a special interest
- clumsy movements

In 1981, psychiatrist Lorna Wing brought Asperger's clinical observations to the attention of the English-speaking medical world, and coined the term Asperger's syndrome. In 1991, A decade later, in 1991, the German-British developmental psychologist Uta Frith published an annotated translation into English of the German article by Hans Asperger that was published in *Archiv für Psychiatrie und Nervenkrankenheiten*, in 1944 (Asperger, 1991). In the same year 1991), Wing published an article on the relationship between Asperger's syndrome and Kanner's autism.
In 1994, the American Psychiatric Association (APA) recognized the diagnosis of Asperger's syndrome in the fourth edition of its *Diagnostic and Statistical Manual* (*DSM*). The syndrome is characterized by strengths such as unusually deep, narrow interests, and challenges in social communication and interaction, in people with average IQ or above and no history of language delay. In 2013, APA revised the *DSM* and deleted Asperger's syndrome in favour of a single category, Autism Spectrum Disorder.
Pervasive Developmental Disorder, Childhood Degenerative Disorder, autism, and Asperger Syndrome all are within the category of ASD.
Table 1 show the comparison between autism diagnosis criteria in DSM-5 and the Sukhareva's description.

Autism spectrum disorder, DSM-5, 2013	Schizoid personality disorders of childhood, Sukhareva, 1925/1926, examples
A. Persistent deficits in social communication and social interaction across multiple contexts	*An autistic attitude: Tendency toward solitude and avoidance of other people from early childhood onwards; avoids company with other children*
1. Deficits in social–emotional reciprocity	• Impulsive, odd behavior • Clowning, rhyming • Some were speaking endlessly or asking absurd questions of the people around them • Affective life flattened • Seems odd • A tendency toward abstraction and schematization (the introduction of concrete concepts does not improve but rather impedes thought processes)
2. Deficits in non-verbal communicative behaviors used for social interaction	• Lack of facial expressiveness and expressive movements • Mannerism; decreased postural tone; oddities and lack of modulation of speech • Superfluous movements and synkinesis • Nasal, hoarse or high pitched whining voice or lacking in modulation
3. Deficits in developing, maintaining and understanding relationships	• Keep apart from their peers, avoid communal games and prefer fantastic stories and fairy tales • Find it hard to adapt to other children • Ridiculed by their peers and have low status
B. Restricted, repetitive patterns of behavior, interests or activities as manifested by at least two of the following	*Tendency towards automatism: Sticking to tasks which had been started and psychic inflexibility with difficulty in adaptation to novelty*
1. Stereotyped or repetitive motor movements, use of objects or speech	• Tic-like behaviors • Grimacing • Stereotypic neologisms • Repetitive questioning; talking in stereotypic ways • Rapid or circumscribed speech
2. Insistence on sameness, inflexible adherence to routines or ritualized patterns of verbal or non-verbal behavior	• A tendency for obsessive-compulsive behavior • Lengthy preparation and difficulty stopping • Pedantic, follows principles • Emotional outbursts • If interrupted becomes agitated and starts the story all over again
3. Highly restricted, fixated interests that are abnormal in intensity or focus	• Strong interests pursued exclusively • Preservative interests, e.g. conversion marked by repetitive obsessional themes; clings to certain themes • Tendency to rationalization and absurd rumination
4. Hyper- or hypo-reactivity to sensory input or unusual interest in sensory aspects of the environment	• Musically gifted—enhanced perception of pitch • Sensitivity to noise, seeks quietness • Sensitivity to smell
C. Symptoms must be present in the early developmental period	*Onset in early childhood*
D. Symptoms cause clinically significant impairment in social, occupational or other important areas of current functioning	*Inability to attend normal school due to their odd behaviors*
E. These disturbances are not better explained by intellectual disability	*Intelligence normal or above normal*

Table 1. The DSM-5 criteria for autism spectrum disorder compared with the descriptions provided by Sukhareva (source: Manouilenko & Bejerot, 2015)

The Center for Disease and Control (CDC) reported that approximately 1 in 44 children in the U.S. is diagnosed with an autism spectrum disorder (ASD), according to 2018 data (Maenner et al., 2021). In particular:

- 1 in 27 boys identified with autism
- 1 in 116 girls identified with autism

Boys are four times more likely to be diagnosed with autism than girls. Most children were still being diagnosed after age 4, though autism can be reliably diagnosed as early as age 2.

31% of children with ASD have an intellectual disability (intelligence quotient [IQ] <70), 25% are in the borderline range (IQ 71–85), and 44% have IQ scores in the average to above average range (i.e., IQ >85). Autism affects all ethnic and socioeconomic groups. Minority groups tend to be diagnosed later and less often.

The CDC also reported that early intervention affords the best opportunity to support healthy development and deliver benefits across the lifespan, and there is no medical detection for autism.

In Europe, the three-year (2015-2018) programme *Autism Spectrum Disorders in Europe* (ASDEU) was funded by the European Parliament to research autism prevalence, costs, diagnosis and interventions throughout Europe (http://asdeu.eu/).
The programme scrutinised 631,619 children, with an average estimated prevalence of 12.2 per 1,000 (one in 89) children aged 7-9 years. Overall ASD prevalence estimates varied among European countries, from 4.4 - 19.7 (percentiles 10 and 90) per 1,000 aged 7-9 years.
Another research reported that, for Europe, the median autism prevalence was 59 per 10,000 population (range, 8 to 420; mean, 80) (Anorson, Male, Farr, & Memon, 2021). The same research claimed that it appears that several factors can be attributed to increasing prevalence of ASD in Europe, North America and Oceania. Some of the increase is likely due to increased case ascertainment, but other factors need further investigation to determine the reason(s) for increasing prevalence of ASD.

Social communication

Interpersonal communication cannot be reduced to processes of encoding and decoding of linguistic symbol strings. From social psychology view, social communication encompasses several extra-linguistic functions aimed at achieving goals such as persuasion, bargaining, dating, instruction, deliberation, flattery. Considering Figure 1:

> The ultimate goal of communicator C's communicative actions is not just to enable receiver R to decode the symbolic message S as accurately and faithful as possible, as in Shannon and Weaver's (1949) classical theoretical framework. Nor is the goal to conserve the logical truth value of the propositions inherent in S, as in propositional logic. Rather the actual goal is for C to move R somewhere relative to a communication goal or reference topic T (e.g., to move R to do someone a favour, to buy a product, or to come to a party or data, to share an idea or emotion, etc.). Communication (in its broadest sense) provides a generative tool to accomplish such interpersonal Movies (cf. Rips, 1998). (Fiedler, 2011, p. 3-4)

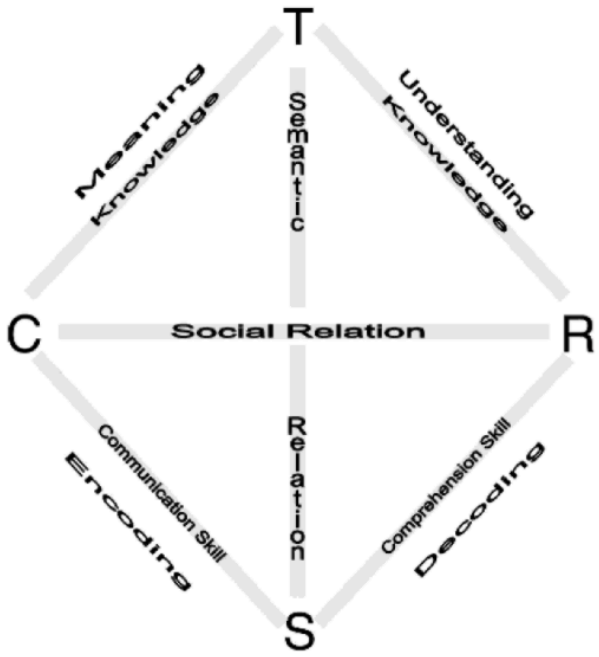

Figure 1. General framework for the analysis of social communication processes (source: Fiedler, 2011, p.4)

There are three major skills involved in social communication:

- Using language for different reasons like greeting or informing
- Adapting the language depending on the context and listener
- Following conventions and rules of that specific language.

Social communication in autism

Neurotypical people may have problems with language but not with social interaction in terms of communication disorders. On the contrary, people with ASD have difficulty in communicating within social context.

ASD is characterized by deficits in social communication and interaction as well as restricted and repetitive and behaviors. In autistic people, social communication deficits may occur in various ways. Usually, they concern verbal and nonverbal communication in social context, but may also include difficulties in social reciprocity. Autistic children have difficulty in talking with others and understanding what others say. Nonverbal communication through hand gestures, eye contact as well as facial expressions is also difficult.

The specific language patterns and behaviors in children with ASD are:

Restricted/repetitive language. Autistic children may say things without meaning or not related to the context. They may be inclined to continuously repeat words. This is called Echolalia.

- *Narrow interests and exceptional abilities*. Autistic children may have certain topics of interest. They may not be able to have a two-way conversation about a topic but may hold a monologue or this topic. Some children with ASD may be really talented and good at certain topics like math calculations. Around 10% of children with ASD have extremely high abilities in memorization, calculation, music, math or other specific areas.
- *Uneven language development*. Many children with ASD may have an extensive vocabulary, good memory for information they just heard, seen, or read. However, they may not comprehend what they heard, seen, or read. Their speech and language skills develop unevenly.
- *Poor nonverbal conversation skills*. Autistic children do not use gestures in social situations. They avoid eye contact and, consequently, it is difficult for them to maintain conversation. They may seem inattentive and rude.

Storytelling

The National Storytelling Network defines Storytelling as an ancient art form and a valuable form of human expression (https://storynet.org/what-is-storytelling/).
There are various applications of therapeutic stories can be used to treat innumerable disorders. The storytelling approach is based on discussing representative stories rather than problems or problematic or traumatic experience.
Stephan Hammel, a child and family therapist engaged in storytelling, claimes that:

> Dreams – which are older than humanity itself – are the prototype of all therapeutic stories, and the most primitive way of bringing order to our mental and social experiences. The cinema in our head helps us to process impressions, reduce stress, clarify goals, examine possible choices and gain motivation to follow the path we ultimately choose. (Hallel, 2019, p. 11)

Recently, there is an increasing interest in research in digital storytelling (De Vecchi, Kenny, Dickson‐Swift, & Kidd, 2016). Digital storytelling is a creative arts process that is used to capture personal stories, using images and sound in a three to five minute digital clip (Lambert 2010).

Storytelling and autism

Several studies have analyzed stories produced by people with ASD using the causal network model (CNM) based on causal relationships (Trabasso, T., & Sperry, L. L. (1985).
If the CNM is not applied to children with ASD, it has been observed they and neurotypical children were equally sensitive to the causal-chains events of a story (Ferretti, 2018).

Here following an example of story that can be used with autistic children:

A man is walking on the road. A flower pot falls on his head. What will happen next? (Figure 2)

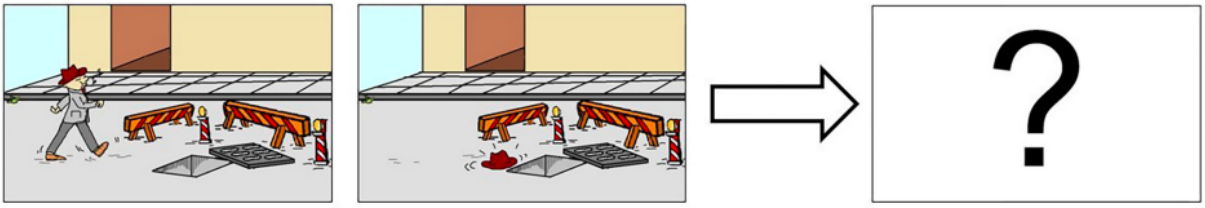

Figure 2. Example of a story

Figure 3 shows another story where the children should develop a story to explain what happned erlier.

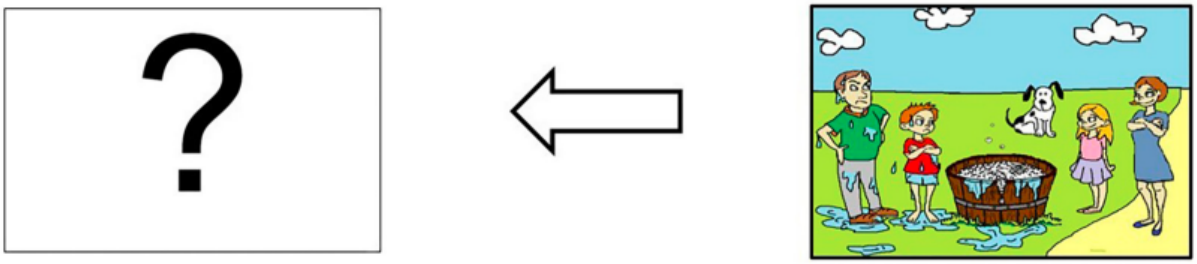

Figure 3. Example of a story

Practical Exercises.
Read and synthesize the

Tips: Practical tips to be followed by the learner when putting this in practice.

Extra Resources: A few extra resources on the given topic i.e., articles, videos, etc.

1. How to Treat Echolalia in a Child with Autism: How to Treat Echolalia in a Child with Autism | Otsimo

- Assessment - Evaluation (everything useful to evaluate the usefulness and efficacy of the learning unit)
  Questions to the text – Teaching Materials [Sub-topic] (1 - 2 pages)

Drama

Since long time, drama has been used as a means of helping people with various special needs. In these cases, the goal of the drama is not the performance but the drama is itself the goal. Drama is used to encourage and improve creativity and self-awareness. It is an educational means to training people to develop their social skills as well as physical expression.
Drama is useful to develop personal understanding and abilities as well as well-being and laten creative possibility (therapeutic drama).

Drama and autism

Drama has been deemed to be the best vehicle for the development of social skills. It involves participants in concrete practice of behaviour and active cooperation. The use of drama in schools is not a new concept and it is has been related to the Dewey's principle *learning by doing* (Batdi & Elaldi, 2020). Indeed, drama offers many advantages as a teaching method is suitable for all students and can be integrated to all the subjects.
In the past, drama was deemed inappropriate to people with ASD due to their presumed inability to make imaginative connection and understand cause-effect relationship. In this regard, Baron-Cohen (1997) argued that children with autism, suffer from mindblindness as a result of a selective impairment in mindreading, and, consequently, for these children, the world is essentially devoid of mental things.

Practical Exercises: An exercise/ a scenario where the learner can apply the knowledge gained.

Tips: Practical tips to be followed by the learner when putting this in practice.

Extra Resources: A few extra resources on the given topic i.e., articles, videos, etc.

- Assessment - Evaluation (everything useful to evaluate the usefulness and efficacy of the learning unit)
  Questions to the text – Teaching Materials [Sub-topic] (1 - 2 pages)

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NOTES

- Fonts:
  Heading 1- Cambria (Headings), Size: 16
  Heading 2: Times New Romans, Size: 14
  Text -Times New Romans, Size: 12
- Each partner is responsible for a learning unit and each unit consists of 2-4 sub-topics. The content of each learning unit must be in line with the project objective and target group.
- The max number of pages for each learning unit should be around **20-30 pages.**
- **There will be questions at the end of each sub-topic, which will be the questions for the final exam.** (The type of questions can be: True /False, Multiple Choice, Matching, Open response, Fill in the blank, etc.).
- Each partner must submit a text document for their learning unit **and prepare a powerpoint descriptive presentation**.
- Each learning material consists of:
  - a number of videos

- reflection and discussion activities
- non - formal learning activity
- a resources section