SCHOOL INTEGRATION OF CHILDREN WITH AUTISM

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Abstract: We consider that children with autism are invisible in contemporary Romanian society; there is even a lack of statistical data regarding children with autism in Romania. In this paper we emphasize how important it is for the education of children with autism to integrate in the school community. First we present the characteristics of children with autism, then we argue about how important it is for these children to integrate in the general education system and finally we present a model that teacher can use in order to promote school integration of these children and thus intercultural education.

Keywords: autism, school integration, intercultural sensitivity, autistic culture

1. Characteristics of autism

Autism is a developmental disorder from the spectrum of Pervasive Developmental Disorders which comprise Asperger's disorder, Rett's disorder, Pervasive Developmental Disorder Not Otherwise Specified and Childhood Disintegrative Disorder (Figure 1). We can describe autism as a spectrum of disorders which vary in severity of symptoms and association with other disorders (like mental retardation, epilepsy etc.). Thus there can be considerable differences between children with autism, meaning that they can be affected by severe, moderate or mild forms of autism.
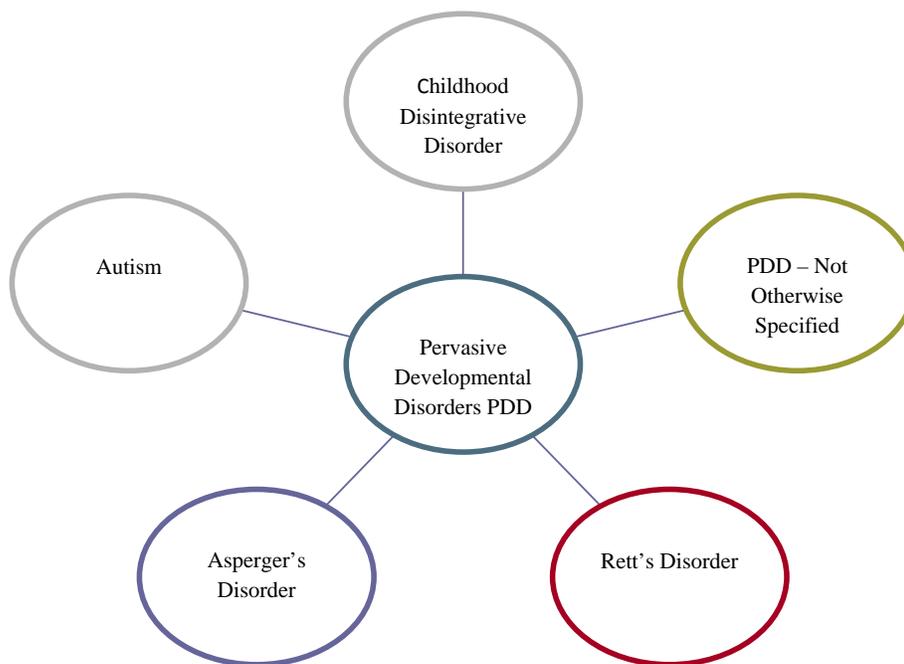

Figure 1. *Pervasive Developmental Disorders*

Since autism is a disorder that affects the brain it is also considered a neurological disorder. Thus we can regard autism as a neuro-developmental disorder that starts during the early years of life. A large number of studies have identified joint attention behaviors (pointing, showing), eye-contact, responding to one's name and symbolic play as core deficits in children with autism from 2 to 5 years old (Charman et al., 1997; Dawson et al., 2004; Lord, 1995 *apud* Wheterby, Watt, Morgan & Shumway, 2007). However, the diagnosis of autism is based on multidisciplinary evaluation of social and adaptative behaviors, communication skills and cognitive status by a team of professionals with expertise in pervasive developmental disorders and on diagnostic criteria from universal approved manuals (Tramontana & Hooper, 1986; Rutter, 1990; Lord & Rutter, 1994, APA, 1994 *apud* Benga, 1997) like DSM IV (Diagnostic and Statistical Manual of Mental Disorders) and ICD-10 (International Classification of Diseases).

The number of autism cases have risen dramatically since the 1990s and the prevalence of this disorder is 1/1000 (Dawson et al 2003 *apud* Benga, 2004). This could be explained by the increased awareness of parents, pediatricians and educators and also of a widen of diagnostic categories. Even if this increase could be explained by the changes in social and medical practices, environmental change may also play an important role (Rutter, 2005 *apud* Silverman, 2008). The cause of autism is not well known but is likely that there are multiple causes if we take into consideration the differences between children with autism. So just as there are different levels of severity and combinations of symptoms in autism, there are probable multiple causes. But researchers emphasize that the causes of autism are biological, not social, although some researchers consider that autism is not just a neurological condition, but also a social one so the inquiry of autism have to be expanded from the interpersonal level to a socio-cultural one and these researchers consider that people with autism should be viewed as members of social groups and communities "who act, displaying both social competencies and difficulties, in relation to both socially and culturally ordered expectations of behavior" (Ochs, Kremer, Gainer & Solomon, 2004: 147). Autism is a disorder that is more frequently encountered among boys than among girls (Muresan, 2007).

As the expression "pervasive disorder" suggests, autism alter some functional areas like language, behavior and social interaction and communication. Children wuth autism exhibit qualitative impairments in social interaction, qualitative impairments in communication and restricted repetitive and stereotyped patterns of behavior (APA, 1994). Communication impairments are usual in children with autism. Verbal language can be delayed or completely absent. These delays or unavailable abilities are not substituted by other ways of communication such as gestures or mime, as they could be. Even if children with autism acquire adecvate speech they encounter difficulties in initiating or sustaining a conversation with others or they use language in stereotyped and idiosyncratic ways (APA, 1994). For instance they may lack understanding of body gestures or tone of voice or they can repeat words automatically, without understanding their meaning, a condition called echolalia.

Social interaction is another area in which children with autism encounter difficulties. In order to have feelings of social belonging and community integration children with autism require social interaction skills. Typically developing children possess social interaction skills from early days of life and thus they gaze at people, they turn toward voices, they smile, exhibit facial expressions and grasp a finger, being in this way social beings from early days of life. As opposed to typically developing children, children with autism often face difficulties in initiating and maintaining eye contact and in joint attention; they are not spontaneous when it comes to sharing enjoyment, interests or achievements with other people. Children with autism also lack social and emotional reciprocity (APA, 1994). They lack understanding the way other individuals think and feel. They lack "theory of mind", which is the ability to understand other people's mental states, like thoughts, beliefs, desires, intentions etc. (Baron-Cohen, Hadwin & Howlin, 2002).

Restricted repetitive and stereotyped patterns of behaviors are another characteristic of children with autism. These children often flap their arms or walk on toes. They may be attracted to specific features of a toy and spinning the wheel of a toy car rather than use it for pretend play. Some children may have rigid patterns of behavior like lining up toys in a specific way or might follow the same routine everyday and often when these patterns of behavior are not followed children might protest with tantrum (Smith, 2006).

Even if children with autism face difficulties in communication, social interaction and behavior they usually present some unique abilities like strong visual skills, good memory of details like math facts, trains schedule, baseball statistics, long term memory, computer and technology skills, musical ability or interest, intense concentration and focus on a preferred activity, artistic ability, mathematic ability, ability to read at an early age (even if they do not necessarily comprehend it), strong encoding and honesty (Autism Speaks, 2008).

2. School integration of children with autism and intercultural education

Althought children with autism are different in many ways from typically developing children, this doesn't mean that these differences are "wrong" and these children should be excluded from general education system and segregate in special institutions. School is an essential institution for the development of any child, including a child with autism and even if children with autism are different from typically developing children we should learn to value difference in order to integrate these children in our society and community. Like Smith (2006, p 435) declared, "It is imperative that students with autism experience normative, programmed, and supported interactions with typically developing peers. Such inclusion provides these youngsters with appropriate role models, where they can observe how others behave and interact with each other". We would like to emphasize that although observation of other children's behavior is benefic for children with autism, the educational process of these children need to be as structured as possible.

Baggs Amanda (2007), diagnosed with autism, stated that her language is not about designing word or visual symbols so that others could interpret them but it is about being in a constant conversation with every aspect of her environment. Thus we can see autism as a foreign culture that seemed strange and deficit only for those who do not understand its norms and who do not want to learn its norms. Social scientists have presented a biosocial construct of "autistic culture" that combines externally produced medical definitions of autism, ideas about autism that are produced by people with the diagnosis, descriptions of autism in publications (websites, blogs, handbooks) and representation in popular culture(Silverman, 2008).

To value diversity means to accept and respect differences. At the core of intercultural education lie two important elements. First element states that intercultural education is the education which respects the diversity of human life and makes human aware of the idea that humans have naturally developed a range of different ways of life, customs and worldviews, and that this range of human life enriches all of us. The second element emphasizes that intercultural education is the education that promotes equality and human rights, combating unfair discrimination and promotes the values upon which equality is built (Intercultural Education in the Post-primary School, 2006).

Cultural competence is a developmental process which includes six stages displayed on a continuum: cultural destructiveness, cultural incapacity, cultural blindness, cultural pre-competence, cultural competency and cultural proficiency (King, Sims & Osher). It has been suggested that most human service agencies that provide assistance to children fall between the cultural incapacity and cultural blindness on the continuum (Cross et al., 1989). We believe that, in order to integrate children with autism in general education system, teachers should reach ethnorelative stages of acceptance, adaptation and integration of the intercultural competence model of Bennett Milton (Figure 2). The ethnocentric stage of this model comprises denial, defence/reversal and minimization while the ethnorelative stage comprises acceptance, adaptation and integration. By ethnocentrism Bennett is refering to the experience of viewing one's own culture as "central to reality" while by ethnorelativism he is referring to the experience of viewing one's own culture as just one organization of reality amongst many other legitimate possibilities. Bennett is not referring to moral relativism, but specifically to the idea that different cultural perspectives should not be seen as superior to one another, but as relative.
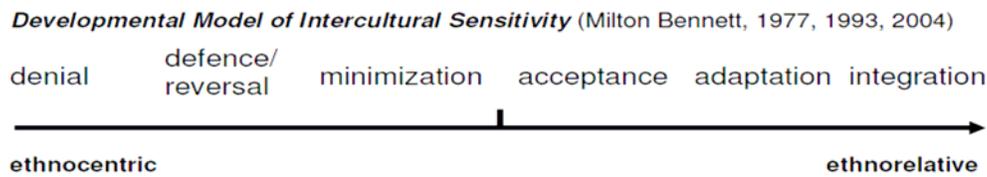
Figure 2. *Source: Dan Sheffield, 2007*

We believe that intercultural competence is important in school-based interventions and supports for children and youth with autism. In accordance with Cross (1989) we define cultural competence as a set of congruent behaviors, attitudes, and policies that come together in a system or among professionals and enables that system or those professionals to work effectively in cross–cultural situations. An operational definition emphasize that cultural competence is the integration and transformation of knowledge about individuals and groups of people into specific standards, policies, practices, and attitudes used in appropriate cultural settings to increase the quality of services, thereby producing better outcomes (Davis, 1997).

3. How can primary school teachers make a difference?

Ruble and Dalrymple (1996) argued that individuals with autism benefit most from accommodations in their surroundings and from a complex network of social and family supports. Likewise, Billington (2006) argued for a partnership model for evaluating the success supports and therapeutic measures. Every individual deserves the opportunity to learn and reach his fullest potential. A sense of belonging is essential in every child, even in children with autism.

Children with autism do not learn through developmentally typical teaching practices (verbal instruction, imitation of educators and peers, independent learning). Often, they do not benefit from instruction that is not clear, specific and concrete. Therefore, teachers should help children with autism to develop skills like attention (by focusing on salient aspects of the environment), motor imitation, expressive language, receptive language and comprehension, play skills and social interaction skills. For school children with autism consistent structure, support of functional communication, education on social skills and a functional and positive approach to supporting behavior are important elements of the educational process. There are some key features that in order to be effective, every educational program for children with autism should incorporate features like generalization plans, predictable and routine schedules, functional approaches to address problem behaviors, supports for program transition and family involvement and support.. (Smith, 2006)

Teachers and schools should create inclusive environments for children with autism in order to provide them contexts in which they can successfully participate, environments that should meet certain criteria. Environments for children with autism should allow them to make events predictable and thus teachers should develop a schedule, should make new experiences predictable, should avoid surprises, should provide structure and routine and know how well a child handles free times. Additionally, teachers should communicate instructions and consequences carefully using direct statements, avoiding using slang or metaphors or only verbal cues and by using pronouns carefully. Positive participation should also be fostered in children with autism by providing them feedback about the appropriateness of responses, by telling the individual when the behavior is proper, by translating time into something tangible and visible, by enhancing verbal communication with pictures or illustrations and by using concrete examples. (Smith, 2006)

A commonly used technique in classrooms where children with autism participate *is functional behavioral assessment.* Behavior problems such as physical aggression, self-injury or tantrums are critical barriers in effective social and educational development (Horner et al., 2000, Riechle, 1990 apud Lord & McGee, ed., 2001) and such behaviors make children with autism vulnerable for exclusion. The research suggests that in order to obtain long-term outcomes regarding behavior problems, interventions should be focused on promoting positive and prosocial behaviors (Lord &

McGee, ed., 2001). Functional Assessment Behavior is used for identifying elements that predict and maintain behavioral problems and this process typically involve:

(a) identifying the behaviour problem;

(b) developing a set of hypotheses about the antecedents and consequences that are likely to produce or support the problem behavior;

(c) testing the hypotheses ;

(d) designing an intervention that is based on the conclusions of the assessment, an intervention in which antecedents and consequences are altered and the child's behavior is monitored (Lord & MaGee, ed., 2001).

Goals and objectives of such a training would be learning how to take another persons's perspective, how to make and maintain friendships, what social behaviors are appropriate in different contexts (Smith, 2006). Teachers should be aware that teaching strategies of children with autism should include visual cues and supports and they could use *Picture Exchange Communication System (PECS)* which is effective in helping children with autism to develop language and communication skills (Bondy &Frost, 2002; Schwartz, Garfinkel & Bauer, 1998 *apud* Smith, 2006). Charlop-Christie, Carpenter, Le, LeBlanc & Kellet (2002 *apud* Blumberg & Herley, 2007) found that teaching PECS noticeably increased spontaneous speech, imitative speech and some social skills of three boys with autism. Thus this communication system is an evidence based intervention. PECS pictures are used for representing categories such as clothing, toys, activities, feelings, special events, foods, body parts etc. Using this system the child is initiating a communication act and can ask for and receive different objects from the environment. Thus PECS is based on the exchange of pictures for desired item and events. Frost and Bondy (1994, p. 3 apud Carr & Felce, 2007) defined the central aim of PECS thus, ''Children using PECS are taught to approach and give a picture of a desired item to a communicative partner in exchange for that item. By doing so, the child initiates a communicative act for a concrete item within a social context''. Like Figure 3 shows, the PECS system consists of six phases (Blumberg & Herley, 2007).
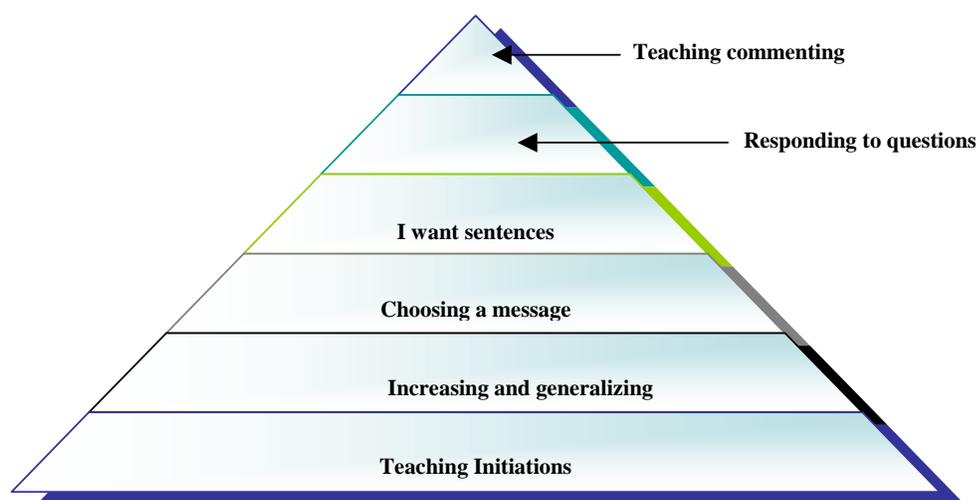

Figure 3. *The six phases of PECS*

(a) Phase one is "Teaching initiations" in which the child is taught how to request an object. When the child wants to ask for an object the prompter (the prompter could be the person that assists the child with special needs in school) will guide him to pick up a picture of the item he

wants and hand it to the teacher. When receiving the picture the teacher will make a brief verbal comment (for instance "you want a pencil") and give the child the item that he required.

(b) In phase two, "Increasing and generalizing", the child is taught to use pictures in different circumstances and with different people. The communicative partner no longer sits across the student and thus the student must find the adult when requesting something. The items are moved further from the student and also the number of items is increased. Students might be required to place a picture in the partner's hand prior to receiving the item (Smith, 2006).

(c) Phase three, "Choosing a message", aims to teach students to discriminate between pictures and thus to demonstrate that they understand the request made. The teacher selects a picture that the student likes and one that he dislikes. He must ask the student "what do you want?" and allow him to select the picture. While giving the selected item to the student the teacher observes the reaction of the child and thus understands if the child selected the correct picture.

(d) In phase four, "Creating I want sentences" the child learns to make sentences with additional pictures. At first the child is taught the "I want" picture paired with additional pictures (Figure 4).

(e) Phase five, "Responding to questions" aims learning a student to make sentences after he is asked a question that can be answered with the "I want" format.

(f) In the last phase, "Increasing commenting", the teacher tries to teach the child how to comment, the consequences of which do not result in obtaining objects but social attention (Blumberg & Herley, 2007).

Figure 4: *Example of a sentence strip. Source: Bondy & Frost, 2002 apud Smith, 2006*

Class-Wide Peer Tutoring (CWPT). Peer mediated strategies have been widely used to enhance learning in several curriculum areas for students with mild disabilities. These strategies involve for instance cooperative learning groups and tutoring (Greenwood, Carta, & Kamps, 1990 apud Kamps et al., 1994). We could consider CWPT more appropriate for children with mild forms of autism in contrast to the functional behavioral assessment and PECS interventions described above. Cooperative learning involves the use of small student groups that work together to maximize their learning and also the other's learning (Johnson, Johnson & Holubec, 1990 Kamps et al., 1994). CWPT involve peer mediated strategies that has proven to be effective across a variety of students and these strategies involve students working together in tutor-learner pairs on a classwide basis (Kamps et al., 1994). A CWPT programe should include alternating tutor-learner roles, verbal and written practice of skills, praise and rewards for correct responses and for the winning teams. CWPT and other tutoring strategies (e.g cross-age tutoring) has proven to be effective when used with children with and without disabilities, in regular classroom settings, improviong academic performance of students and also creating opportunity for social skills practice (Barbetta, Miller, Peters, Heron & Cochran, 1991; Berliner, 1990; Cooke, Heron, Heward & Test, 1982; Fowler, 1988; Franca, Kerr, Reitz & Lambert, 1990; Greenwood et al., 1984; Maheady, Sacca & Harper, 1988 *apud* Kamps et al., 1994). Peer tutoring has been used to teach various skills, such as spelling (at third and fourth graders; Delquadri, Greenwood, Stretton & Hall, 1983; Maheady & Harper, 1987; Mallette, Harper, Maheady & Dempsey, 1991 *apud* Kamps et al., 1994), reading, math and spelling to students who are at the risk of academic failure (Greenwood et al., 1984, 1987; Kohler & Greenwood, 1990 apud Kamps et al., 1994).

We consider that by providing support for children with autism teachers can bring a huge contribution in the lives of these children, in their integration in general education system and in the community. We would also want to emphasize that even if the information provided above can be useful for teachers, it is not sufficient for a complete integration of a child with autism. It shouldn't be forgotten that every child with autism is unique and thus there is a need for an individualized education program for every child. Besides, be aware that a child with autism needs a high structure environment in order for him to reach his fullest potential and also be aware of the development stages (like childhood and adolescence) and of the differences which they involve in education process.

4. Conclusion

As we have seen in this article, autism is a neuro-developmental disorder that affects the lifespan of an individual. But the fact that autism is an incurable disorder doesn't equate with the exclusion of children with autism from general education system, especially when these children might benefit from school inclusion, from education next to their typically developing peers. In this process of school integration of children with autism teachers undoubtedly have an important role and they can enhance the understanding of "autistic culture", as some researchers called it, in children with a typically path of development and in their families. They can also foster in this way the intercultural education and the fulfillment of ethnorelative stages of intercultural competence, as expressed by Bennett in his Developmental Model of Intercultural Sensitivity. In addition, children with autism might in turn live feelings of acceptance and belonging and also to overcome the challenges of autism. Children with autism, like typically developing children, can learn many skills if given the proper support.

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