Assessing and Educating Children Suspected of Having Autism and Other Developmental Disabilities

Autism Educator Teaching Series

1. Key issues
2. Assessment and Diagnosis
3. Appropriate Methods and Support Strategies
4. Recommendations

Assessing and Educating Children Suspected of Having Autism and Other Developmental Disabilities

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For all individuals with special needs who inspire us to reach toward a brighter future for all.

– **Karen Chung**, Founder and CEO,
Special Learning, Inc.

Executive Summary

Educators are often faced with doubts regarding their observations of students. Once in a while, they come across students who display odd behavior that is not typical of their age-mates. This case study revolves around Edward, a young boy who has difficulty in social and communication skills. Since many educators relate to such a case, it is worthwhile to analyze this situation in detail. This analysis provides clear guidelines on how to handle Edward's case and support his overall development. Specifically, it addresses consulting with the parents, obtaining a diagnosis from a developmental pediatrician, assessing the best school program and curriculum, and choosing among a wide variety of possible interventions. In so doing, we endeavor to support Edward and optimize his skills regardless of his diagnosis.

Case Study : Edward, 7 years old

Edward's teacher is concerned about his social and communication skills. He is a seven-year-old boy in first grade who is observed to struggle in making and maintaining friendships; he appears nonchalant and unengaged in the presence of his peers. He prefers to be with adults and older children. Edward is reluctant to speak out in class and when he does, he merely repeats words he hears. He is observed to be reluctant to change, especially in his routines. If he cannot sit in his usual place, he becomes disruptive. Edward's teacher has tried to raise her concerns with his parents; however, they do not seem to be overly worried and reason that he will eventually grow out of it.

Key Issues

The key issues in this case study that are impeding Edward's learning fall under three areas that are in the control of the teacher, student, and parents to change. The first key issue is Edward's social skills. It is reported that he struggles to make and maintain friendships and prefers to be with adults and older children. At seven years of age, a child normally enjoys being with his peers, even if he only establishes a friendship with just one or two other children. That is why it may appear strange that Edward struggles to establish friendships and prefers the company of people older than him. Another observation regarding his social skills is that he does not like changes in routines and becomes disruptive when he cannot sit in his usual place. This may cause a conflict with the teacher's plans for the class, especially if the teacher is the type who engages the children in various hands-on activities that require them to move around. Since Edward does not seem comfortable with change and prefers a predictable routine, he may not be cooperative when sudden changes occur during his school day. This inflexibility might pose a problem, since in first grade, young children's curriculum involves a variety of experiential learning that is not restricted to the four walls of the classroom.

Edward's communication skills pose another key learning issue. He has been observed to be reluctant to speak and in the few instances that his voice is heard, he merely echoes what has just been said. For other children, it may be difficult to understand why he behaves this way and they may feel offended when he does not communicate back to them, or worse, may think he is teasing them when he repeats everything they say. This behavior may be frustrating for children and they will likely just avoid Edward. Other people may also wonder if he understands what they tell him because he may not give the appropriate communicative responses expected from him. Furthermore, it is of concern that he is incapable of expressing what he needs or wants. Edward's cognitive, social, and language development delays put him at risk of social alienation and school failure.

The final issue is the attitude of Edward's parents. At his age, he is expected to already possess social and communication skills that allow him to interact with others and express his ideas and needs. However, his parents do not seem to be overly concerned and shrug off his delayed development by saying he will just grow out of it. It is probable that, as parents, they noticed these differences in their son early but are in denial of the possibility that there may be something wrong with him.

Assessment and Diagnosis

The teacher's observations of Edward are valid enough to send him for assessment to determine if he has special education needs. If nothing is done to help him, he will be at risk of developmental delay and may not perform well in school. His difficulties in socialization and communication will also remain and may lead him to become less productive. According to Erikson's Psychosocial Stages of Development, children aged 7 to 12 fall under the Industry versus Inferiority stage. They have gained enough skills to perform well in school. They have become industrious enough to make their families and friends proud of their achievements, but if they fail, they may develop a sense of insecurity and inferiority (Brewer, 2001).

Informing Edward's parents about the observations and possible implications of the observed behavior is one way of raising awareness in the parents of the seriousness of his behavioral differences at his age. This may prod his parents to bring Edward in for diagnosis by a developmental-behavioral pediatrician who is authorized to test and dispense diagnoses and medical advice for possible interventions. This medical doctor may validate whether Edward has a developmental disability. "A broad definition of a developmental disability is a condition or disorder—physical, cognitive, or emotional—that has the potential to significantly affect the typical progress of a child's growth and development or substantially limits three or more major life activities including self-care, language, learning, mobility, self-direction, capacity for independent living, and/or economic self-sufficiency" (Federal Developmental Disabilities Act of 1984). In Edward's case, his observed passive behavior affects his progress in language development and learning since the teacher has limited ways of assessing how much he has learned due to his communication problems.

Methods of Assessment and Identification

Upon initial assessment by the teacher based on behavior observations of Edward, it is suspected that he possesses the characteristics of Autism Spectrum Disorder (ASD) under DSM-V. The key characteristics of ASD, as defined by the Diagnostic and Statistical Manual of Mental Disorders (DSM-V):

- Qualitative impairment in social interaction
- Qualitative impairment in communication
- Restrictive, repetitive and stereotyped patterns of behavior, interests and activities

The following table serves as a guide to assessing if an individual may have Autism (taken from Practice Parameter: Screening and Diagnosis of Autism, 2000):

Diagnostic Criteria for Autistic Disorder

A. A total of six (or more) items from (1), (2), and (3), with two from (1), and at least one each from (2) and (3):

1. Qualitative impairment in social interaction, manifested by at least two of the following:

- Marked impairment in the use of multiple nonverbal behaviors, such as eye-to-eye gaze, facial expression, body postures, and gestures, to regulate social interaction
- Failure to develop peer relationships appropriate to developmental level
- Lack of spontaneous seeking to share enjoyment, interests, or achievements with other people (e.g., by lack of showing, bringing, or pointing out objects of interest)
- Lack of social or emotional reciprocity

2. Qualitative impairment in communication, as manifest by at least one of the following:

- Delay in, or total lack of, the development of spoken language (not accompanied by an attempt to compensate through alternative modes of communication such as gesture or mime)
- In individuals with adequate speech, marked impairment in the ability to initiate or sustain a conversation with others
- Stereotyped and repetitive use of language, or idiosyncratic language
- Lack of varied, spontaneous make-believe, or social imitative play appropriate to developmental level

3. Restrictive repetitive and stereotypic patterns of behavior, interests, and activities, as manifested by at least one of the following:

- Encompassing preoccupation with one or more stereotyped and restricted patterns of interest that is abnormal either in intensity or focus
- Apparently inflexible adherence to specific nonfunctional routines or rituals
- Stereotyped and repetitive motor mannerisms (e.g., hand or finger flapping or twisting, or complex whole-body movements)
- Persistent preoccupation with parts of objects.

B. Delays or abnormal functioning in at least one of the following areas, with onset prior to age 3 years:

1. Social interaction
2. Language as used in social communication
3. Symbolic or imaginative play

C. The disturbance is not better accounted for by Rett's disorder or childhood disintegrative disorder.

The other pervasive developmental disorders include Asperger's disorder, Rett's syndrome, childhood disintegrative disorder (CDD), pervasive developmental disorder—not otherwise specified (PDD-NOS), and atypical autism.

Although the teacher's observations correspond to a positive assessment of Autism, her observations are not enough to warrant a diagnosis since she is not qualified to provide one. Evidence must be collated and presented to a developmental pediatrician or other specialists thoroughly trained and with extensive experience or specialization in diagnosing Autism Spectrum Disorder (ASD). A team of specialists can best give a credible diagnosis of Edward's condition. A multidisciplinary team of professionals consisting of one or more of the following will be the best source for an accurate diagnosis for Edward: psychologists, neurologists, pediatricians, developmental pediatricians, child psychiatrists, speech-language pathologists, occupational therapists, physical therapists, audiologists, educators, special educators, social workers.

There are several ways to determine what is causing Edward's difficulties, as outlined below. These assessment approaches should be explored to identify the problem so appropriate solutions and interventions may be implemented to help him.

• Observations in School and at Home

The teacher has already reported her observations of Edward's behavior in school. It is also important to get the parents' report of their observations of their son in the home setting to see if it is consistent with the teacher's observations. If there is a discrepancy, such as Edward being sociable and communicative at home, then reasons for such discrepancies must be investigated. Interviewing the child regarding his attitude towards school is one way to know his thoughts and feelings about being in school.

Strengths of this method of assessment: The parents and teachers of young children have personal information about the child and their objective observations can validate if the behaviors are consistent with their understanding of the child or not. For instance, parents can tell if their child is just acting up or if the behavior is a reaction to an event or occurrence that deeply affected the child, such as a loss of a pet. For the teacher's part, she can compare the child's behavior to expected norms for his developmental level. Educators and parents have free access to the child and can do unobtrusive observations of him in his most natural settings.

Limitations : If Edward becomes aware that his parents or teachers have become more vigilant in observing him, he may become defensive and withdrawn and refuse to show symptoms of any problems. The process of communicating observations may not be totally open as some parents may prefer to not share observations that may put their child in a bad light. Similarly, teachers may restrict communicating their observations to those that would not be hurtful to parents. If teachers have no choice but to divulge all information, they may sugarcoat it so parents will not be too defensive and hurt. Doing so may lessen the blow to parents, but they may not take the report serious enough, thinking it is "just one of those things children can grow out of." On the other hand, teachers may deliver information to parents that may be too alarming because they may have read too much into the child's behavior.

Developmental Pediatrician's Diagnosis

A developmental pediatrician is a medical doctor specializing in the growth and development of children. This doctor is authorized to do diagnostic tests and dispense diagnoses and medical advice for possible interventions. He/she can validate whether Edward has a developmental disability based on the results of the tests and observations of the parents and teachers of Edward's behaviors. Clinicians must rely on their clinical judgment, aided by diagnostic guides such as DSM-V and the Tenth Edition of the International Classification of Diseases (ICD-10), as well as by the results of various assessment instruments, rating scales, and checklists (Practice Parameter: Screening and Diagnosis of Autism, 2000, p.472).

Strengths of this method of assessment: Pediatricians are professionals knowledgeable about children's well-being. They are up-to-date on the latest trends and information on disabilities, illnesses, treatments, and interventions. A pediatrician may be able to link Edward's observed behaviors to an organic or functional cause and decide on a plan of action/ medication/ or intervention for him.

Limitations: Since medical doctors thrive in environments where illnesses and disabilities abound, bringing in Edward with a presenting problem as exhibited by his odd behaviors in school may immediately place the pediatrician in diagnosis mode without even establishing a rapport with Edward and getting to know him personally. If Edward is uncommunicative, the pediatrician will rely on the information provided by the parents and teachers, which may be colored with their own interpretations.

Diagnostic Tools

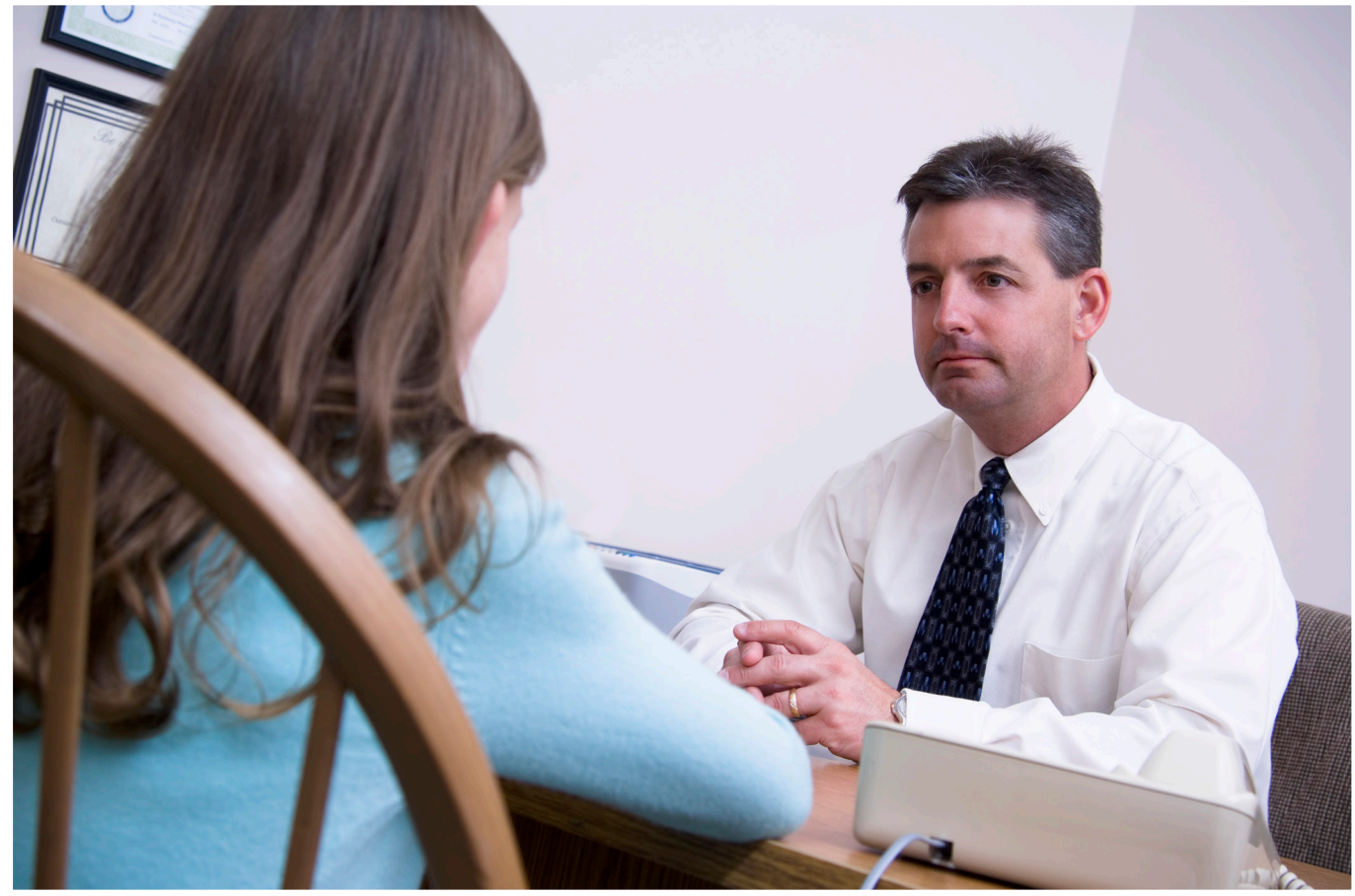
The formal assessment process involves both parents and child and includes interviews, direct observation, and a battery of tests. Apart from valid observations, diagnosis of autism must include the use of accurate diagnostic instruments characterized by moderate sensitivity and good specificity for autism. A trained professional requires enough time to plan a parent interview to extract the necessary information regarding the child. In addition, they will discuss their concerns and the child's behavioral history as well as conduct direct, structured observations of the child's social and communicative behavior and play. Aside from the diagnostic parental interviews facilitated by the developmental pediatrician or trained professional, recommended instruments include the following:

- The Gilliam Autism Rating Scale
- The Parent Interview for Autism
- The Pervasive Developmental Disorders Screening
- Test–Stage 3
- The Autism Diagnostic Interview–Revised
- The Childhood Autism Rating Scale
- The Screening Tool for Autism in Two-Year-Olds
- The Autism Diagnostic Observation Schedule-Generic

To supplement the diagnosis, a battery of tests and evaluations may be conducted to determine the best interventions for the child with autism. Among these are medical and neurologic evaluations by a licensed physician; a multidisciplinary evaluation by a host of specialists; speech, language and communication evaluations; and cognitive and adaptive behavior evaluations, which may include instruments such as the Vineland Adaptive Behavior Scales and the Scales of Independent Behavior. These instruments may only be performed by a licensed psychologist or trained professional, as the standardized protocols need to be followed exactly. They provide evidence of the child's abilities including social, verbal, and non-verbal skills.

Sensorimotor and occupational therapy evaluations may also be conducted depending on the needs of the child. These assess the child's range of skills with regards to fine motor, gross motor and sensory processing. In the event the child is observed to have sensory integrative dysfunction, the Sensory Integration and Praxis tests may also be administered. Finally, neuropsychological, behavioral, and academic assessments evaluate the child's cognitive abilities and social skills (First Signs Inc, 2010).

Whether or not your child receives a diagnosis of Autism, this thorough diagnostic analysis can provide important insight into your child's developmental progress, including the identification of deficits and abilities. This information helps educators and parents develop a program that meets the child's educational and developmental needs.



Appropriate Methods and Support Strategies

To develop the most beneficial educational program for Edward, emphasis should be on his unique skills and abilities over social and communication limitations. Today, a more progressive school of research places the focus on the special intelligences, task-oriented skills, unique learning approaches, and visual processing abilities of autistics (Mottron, 2011). World-renowned psychologist Vygotsky provided early insight into disabilities by pointing out that a child less developed than his peers is "a child who has developed differently" (Vygotsky, 1993). He further emphasized how those with physical and mental challenges are highly motivated to compensate with intellectual and even social abilities in order to be accepted into the social setting (McPhail & Freeman, 2005). Therefore, to support his socio-psychological heath, it is important to work toward integrating Edward into the educational environment.

There is a strong positive correlation between early intervention and developmental progress among autistics, justifying the teacher's proactive intervention through Edward's parents. A recent BBC news report claims that "early intervention will improve the lives of vulnerable children and help break the cycle of dysfunction and under-achievement" (Sellgren, 2011, para.1). To help accomplish this, the following early intervention support strategies may help Edward develop better social, emotional, and communicative skills and prevent him from developing further and more pronounced disabilities.

Educational Interventions

The objective, then, should be to aid Edward in developing his own unique abilities while integrating into the regular school environment. If Edward has special needs, then he must be provided with access to a broad, balanced and relevant curriculum, which is offered in mainstream and inclusive schools. Mainstreaming refers to the selective placement of special education students in regular education classes. It is assumed that some special education students will keep up with the workload in regular classes and may therefore join the group. Inclusion involves the child learning in the regular environment and removed only when appropriate services cannot be provided in the regular classroom (Stout, 2001). Additionally, to tackle Edward's learning difficulties and close the gap with other students, a one-on-one tutor can help him with his lessons so he gains more confidence in his academic performance.

Piaget (1959) believes that children's interaction with the environment encourages learning as concepts are constructed or changed. These child concepts are different from, but usually develop into, adult concepts. Vygotsky (1962) provides another perspective, as he theorized that a child learns through conversation and involvement with an adult. This interaction between adult and child is "scaffolding," which occurs when a knowledgeable adult gently guides a child through successive learning activities while relinquishing autonomy little by little to the child until such time he can manage on his own. Considering the recommendations of Piaget and Vygotsky, which provide further support for an immersive learning environment, it would be beneficial for Edward to be in either a mainstreamed or inclusive class with other children. His curriculum should include a specially designed individualized educational plan (IEP) to ensure his special learning needs are met.

Individualized Interventions/Therapies

Additionally, all of the below interventions and therapies should be considered for Edward, as appropriate.

• **Applied Behavior Analysis (ABA):** ABA is a treatment and teaching approach that consists of programs and activities, which use the antecedent-behavior-consequence model. Skinner's behaviorist model requires that an individual's responses to various stimuli are reinforced (positively or negatively); thus, the external environment plays an important role in the formation of behaviors. Edward could benefit from ABA learning and its proven ability to improve communication skills, including making eye contact. By administering positive reinforcement such as praising or smiling when a desired behavior occurs and administering negative reinforcement such as scolding or correcting when an undesired behavior occurs, one can encourage the desired behavior and make it more likely that that behavior will recur (Lindfors, 1987). In ABA, each observable action is considered related to a behavior and is analyzed to determine what came before it, how the behavior occurred, and what happens after. This analysis is studied in order to catch behavioral problems, social inadequacies or language impairments; correct them; and encourage positive behaviors to occur more often (Lovaas, 1987).

• **Greenspan or "Floortime":** Another intervention is the Greenspan method, also known as "Floortime." It is a Developmental Individual Difference, Relationship-based (DIR) and multi-sensory approach. Developed by Greenspan (1997), the intervention involves a parent or therapist going down on the floor with the child to join him in his play, or any activity he chooses. It teaches the adult how to engage the child in happier and more relaxed activities while teaching interactive context. The play addresses developmental delays in sensory modulation, motor planning, sequencing, and perceptual processing. Analysis and intervention in six areas of functioning are meant to improve developmental skills. The first area is regulating one's attention and behavior while being stimulated by a wide range of sensations. The ability to maintain quality and stability in the engagement of relationships is the second area. This ability supports the development of the third competency, the ability to engage in purposeful communication. This program encourages the child to open and close communication circles. (Greenspan, 1997). The next area is the stringing together of many circles of communication into larger patterns. This is linked to the fifth area, which deals with the child's ability to create mental representations or emotional symbols through his pretend play and emotional intentions. Finally, the last level works on the ability to build bridges or make connections between different internal representations or emotional ideas. This capacity is a foundation for higher–level thinking and problem-solving. Such abilities separate reality from fantasy, modulate impulses and mood, and teach independence (Greenspan, 1997).

Picture Exchange Communication System (PECS): PECS is a communication training system in which the child gives a picture of a preferred item to a communicative partner (parent, teacher or therapist) in exchange for the item. Initially, the communicative target is requesting. When the child is able to successfully request, his behavior is reinforced by being given the preferred item requested. This training is designed to take place in a social context. Teaching a child with special needs to request is a useful skill, and often facilitates the teaching of other communicative intents (Quill, 1995).

• **Social Stories:** This intervention will help Edward address his difficulties in social interaction skills. Social stories help individuals deficient in social interaction to "read" and understand social situations by presenting appropriate social behaviors in the form of a story. Read repeatedly, the story will enable the child to successfully enact the skills appropriately taught and hopefully be able to apply them in social situations (Gray, 1993).

• **Speech Therapy:** To address Edward's language and communication deficits, speech therapy may also be included in his repertoire of interventions. Speech therapy builds on an individual's strengths and can greatly improve both communication and behavior. A speech therapist addresses the use of language pragmatics or the "give and take" of conversation for social purposes (Charlop, 1989). Noam Chomsky's theories, known by many names—Linguistic, Nativistic or Innatist—uphold that language is inherent or "wired-in" in the child at birth and needs only to be triggered by social contact with speakers in order to emerge (Brewer, 2001). He is equipped with a language acquisition device, a structure in the brain that makes possible the learning of language (Chomsky, 1965).

• **Special Diet:** Recent research has hypothesized that diet, food allergies or intolerance to yeast may contribute or even cause autism. Serroussi (2003) conjectures that sugar, wheat, milk, and some additives may be the cause of some autistic-like behaviors. Diets that are gaining popularity for autistic individuals include antifungal medications, herbal treatments, gluten- and casein-free foods, and the elimination of processed food and food additives.

Recommendations

Edward's parents should be made aware of the seriousness of the implications of his school behaviors. Together with his teachers, a support strategy encouraging him to interact with other children and communicate with them will help him to overcome his difficulties. Should he warrant more professional help, a developmental pediatrician can diagnose the problem. In collaboration with a special education teacher, the developmental pediatrician can design an intervention program for him that may include therapies or activities such as Speech Therapy or Social Stories (or any of the previously discussed interventions) that may help him deal with his difficulties in socialization and communication, as well as his inflexibility to change in routines.

In school, Edward's teachers will need more patience for, and understanding of, his eccentric behaviors. All members of the school staff should be trained to handle children with special needs. Other children should also be educated on this issue and be taught how to support their peers with special needs. When they are aware of such issues, they become less likely to make fun of them and are more willing to help out.

Edward's condition requires that clear instructions are provided to him. In the case of a change in his routine, he must be informed and adequately prepared for the next activity. Use of visual cues such as pictures of objects or activities may be helpful in the development of his communication skills. Edward needs predictable and manageable goals and time limits and they should be kept consistent. If Edward

is found to be autistic, his sensitivity to light and sound must be respected, because children with autism are easily distracted by such stimuli and distracted from their task.

In addition, Edward's parents and family members should likewise be supported. Listening to families and being sensitive to their concerns regarding their special needs children is one essential role that may help ease the burden of loved ones. Maintaining warm and open communication with families and involving them in the activities of their children would surely be welcome support.

Having access to Edward's records (from doctors or other agencies) enables his teachers and social workers to monitor his progress and plan for him accordingly. Maintaining assessment records and observations is important as these may serve as assessment tools for future diagnostic purposes by professionals. Being able to spot a child exhibiting behavior that may be alarming is one quality of a good and sensitive teacher. Edward is already seven years old and is expected to exhibit skills and behavior appropriate to his age. Although his parents may not be open to the possibility that he may have special needs, it should not stop a concerned teacher from exerting efforts to help him.

From Edward's observed behaviors, early intervention is essential in helping him to grow to be a productive individual. Edward is fortunate to live in an age where people from various disciplines as well as the government are concerned enough to reach out to children like him so he can overcome any challenges and maximize his potentials.

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