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Abstract
Individual student assessments, formal and informal, provide the essential framework of the exceptional education process. Mandated by the Individuals with Disabilities Education Improvement Act (IDEIA) 2004, these laws determine the needs and programs that will be implemented for every child identified to receive exceptional education services. Collectively, norm-referenced, criterion-referenced, and authentic assessments complete a comprehensive portrayal of the student’s academic, behavioral, and functional needs and skills. This paper outlines the various elements of authentic assessment and how they can be implemented with individuals identified with Autism Spectrum Disorders (ASD) as well as other students. The main purpose of including authentic assessments is to build on the strengths of the individuals rather than focusing on the deficit model which is generally the criteria of the special education model (Skrtic, 1995).

Keywords
Assessment, autism, ASD, authentic assessment, individual strengths

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Authentic Assessments for Individuals with Autism Spectrum Disorders

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Abstract

Individual student assessments, formal and informal, provide the essential framework of the exceptional education process. Mandated by the Individuals with Disabilities Education Improvement Act (IDEIA) 2004, these laws determine the needs and programs that will be implemented for every child identified to receive exceptional education services. Collectively, norm-referenced, criterion-referenced, and authentic assessments complete a comprehensive portrayal of the student’s academic, behavioral, and functional needs and skills. This paper outlines the various elements of authentic assessment and how they can be implemented with individuals identified with Autism Spectrum Disorder (ASD) as well as other students. The main purpose of including authentic assessments is to build on the strengths of the individuals rather than focusing on the deficit model which is generally the identification criteria of the special education model (Skritic, 1995).

ASD and Assessments

Collectively, five categories of pervasive developmental disorders (PDD) are grouped under the umbrella of ASD including: autism, Asperger syndrome, pervasive developmental disorder-not otherwise specified (PDD-NOS), Rett’s syndrome, and childhood disintegrative disorder. All five of these disorders share some characteristics such as being pervasive, meaning that they affect all aspects of an individual’s life, and are developmental so occur early in life and affect a child’s development. The triad of characteristics those are prevalent for these individuals diagnosed with ASD includes: social functioning, repetitive behaviors, and communication as identified by the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) (2004). These individuals may vary from being low to high functioning, resulting in a variety of strategies that may work with one individual, but not another. According to Steve Shore (2007), if you have met one individual with ASD, you have met one person with ASD. This statement demonstrates the variability of characteristics because of the individuals’ skill levels and behaviors that are included in this category.

During the assessment process for exceptional education services, a number of norm-referenced tests are
administered. These include but are not limited to IQ, academic, and social/behavioral tests. As researchers are exploring outcomes for individuals with ASD, some are questioning whether these assessments are valid with this population. One study that compared the scores on the Raven’s Progressive Matrices, a preeminent test of fluid intelligence, to those produced by the Wechsler Scale of Intelligence, found an average 30 percentile point higher score. For some individuals, there was as much as a 70 percentile point difference (Dawson, Soulieres, Grenscher, & Mottron, 2007). This is a considerable difference and demonstrates that further research is needed to correctly assess these individuals diagnosed with ASD.

Due to this fact that some norm-referenced assessments may not be accurate and cannot identify all characteristics of individuals with ASD, other assessments must be implemented. For this reason, teachers may use authentic assessments that reflect real-world functioning and create a picture of the student’s abilities. There is no comparison of scores to other students within the classroom in this assessment process because according to Goh (2004) authentic assessments take into account the real-world input during the evaluation process. Five elements of these assessments include: strength-based evaluations, the use of naturalistic data, consideration concerning multiple intelligences, respect for preferred modalities, and reflection about strengths available from outside sources (Layton & Lock, 2008). Together these components can assist in the planning and implementation of completing authentic assessments in regards to academics, behavior, and sensory issues as it relates to individuals with ASD.

**Five elements of authentic assessments**

The first developmental element of authentic assessments is to use strength-based evaluations, which are essential for students with ASD. This is due to the fact that their skills may vary considerably due to their abilities or fixation regarding a certain topic. The assessments should focus on the learning, aptitudes, and personal interests of the individual (Oosterhof, 2003). For example, a student infatuated with trains may know every engine type and the year that it was designed. His math goal could be developed by calculating the distance the train must travel to get from one location to another; at the same time, he is learning about the country’s geography. His goals can focus on his knowledge and interest for learning rather than drawing attention to the student’s deficits. This process of building on the strengths encourages the parents to become more involved in the educational process as they are knowledgeable about the interests of their child.

The second developmental element is the use of naturalistic data, which involves the collection of information across an array of settings including the classroom, community, and home to assure that generalization is occurring. This information is obtained from a variety of evaluators such as parents, teachers, and speech therapist, who are involved with the student’s daily environment. For example, a child is learning his colors in the classroom and may be able to identify a particular color when it is displayed within a circle on a
The next step is to assure generalization of the color’s identity when the child is taken to the library and asked to find five blue books or objects.

Third, multiple intelligences (Gardner, 1993) is the identification of the strengths and styles that describe how the student learns and solves problems. These areas include: verbal/linguistic, mathematical/logical, musical, visual/spatial, kinesthetic/tactile, interpersonal, intrapersonal or reflective, and naturalistic. Surveys are available to identify the learning style of the students, and can be very beneficial for all students. For a student diagnosed with ASD who possesses a musical influence, a teacher could play soft music while he is completing his assignment. This simple modification could help the student focus more intently on his academic work or functional skill development.

The fourth element is preferred learning modulations which include: visual, auditory, or tactile/kinesthetic. The learning process is enhanced when the student’s particular learning style is identified. Research has indicated that students with ASD tend to be visual learners (Shore, 2007). For example, a boy was struggling with transitioning from one activity to another in the classroom so the teacher prepared a list of activities for his clipboard. At first this process did not work until he decided to cross off the completed task immediately after he finished. By implementing the two styles together (visual and tactile), he was able to move from one activity to another without any guidance. Teachers can prepare their instruction to enhance all learners’ capabilities in the classroom by presenting information using all three forms of modulations. This can be accomplished by giving a homework assignment verbally, followed by writing it on the agenda board so that it presented visually, and finally having the student write it in his agenda book (tactile).

The final element includes building strengths from outside sources. This is a critical component for individuals with ASD due to the fact that they tend to learn in a different manner than their neurotypical peers. Often, they have a variety of educators involved throughout the school day such as school psychologists, speech therapist, occupational therapists, and exceptional education teachers. When collaboration occurs among these service providers, lessons can be implemented and generalized across settings. For example, if all therapists teach a one-through-five level to identify the loudness of an individual’s voice, the student will learn the behavior as well as generalize what voice level he is to use for a particular environment faster.

By implementing these five elements of authentic assessments, teachers can provide a means of systematically collecting information so that the student can develop and progress with the identified goals on the Individual Education Plan (IEP) (Alper, Ryndak, & Schloss, 2001). Using a variety of tools and strategies, the team members can become more involved in the educational process as mandated by IDEA 2004. At the same time, the child’s learning is focused on his strengths and learning styles in natural settings while involving the IEP team members. This process increases the
success rate for goal attainment while maintaining good record keeping of the evaluation process.

**Authentic Assessment Methods to Implement with Students with ASD**

Although there are a variety of authentic assessments, this paper will focus on the following methods: behavioral observations, interviews and questionnaires, checklists and rating scales, and environmental assessments. These are essential components for working with individuals with ASD, described as exhibiting core deficits in socialization, behavior, and communication (Prelock, 2006). Also, these are authentic assessments that are currently implemented at the Kelly Autism Program (KAP) at Western Kentucky University (WKU) and in the classrooms of a number of present and past staff members (Harper, Blake, & Shultz, 2007). The participants at KAP range in age from seven through adulthood, with functioning skills that vary from being non-verbal to individuals with IQ scores of 135. Also there is a college program whereby students, who meet college entrance requirements, can attend WKU, Bowling Green Community College, or Bowling Green Technical College. These five types of authentic assessments assist the staff in developing educational, behavioral, and social programming.

**Behavioral Observations and Assessment**

Behavioral observations consist of two parts: watching the student and recording what has occurred (Maag, 2004). Together this process produces both qualitative and quantitative data. Qualitative data describes descriptive information that provides an overview of what is observed in the setting, while quantitative data provides frequency, duration, and time sampling of the behaviors, the actual number of a predetermined behavior occurrence.

All behavior is a form of communication that occurs for some reason including: escape/avoidance, attention seeking, control/assess to tangibles, and sensory. Also, for the student with ASD with a hypo or hyper sensitivity to a noise, smell, or taste, he may respond with a flight or fight response. For this reason, consideration must be given to the total child, not just the behavior, which generally is the focus of the teacher (Aspy & Grossman, 2007). These reactions, commonly referred to as meltdowns may appear to be consistent with a temper tantrum. At other times the student may totally withdraw or disengage from all activities. This escalation/withdrawal process may build throughout the day or may come about with minimal warning for the observer. By becoming aware of the precursors of a meltdown, the staff can learn the warning signs and try to refocus the situation before it escalates out of control.

**Interviews and Questionnaires**

Interviews and questionnaires are methods that can be used to collect information from team members and to obtain their perspectives about the individual's strengths and needs (McLoughlin & Lewis, 2001). The interview is an oral collection of information while a questionnaire is a written documentation of information about the individual. These instruments
are excellent for including all team members in the assessment process. Since parents/caregivers are essential members of the team and are aware of the various behaviors their child exhibits, they can provide information that can be used to construct a better understanding of what has occurred throughout the child’s lifetime, how he performs tasks, and what motivates him to do well.

One critical component for individuals with ASD is an understanding of the sensory integration that should be addressed within different settings. By implementing interviews and questionnaires, a better understanding can be obtained regarding sensory issues so that the staff can be aware of the individual’s needs. At KAP parents/caregivers complete a questionnaire before the intake meeting, followed by an interview when they arrive at the center. This allows the staff to assure that the setting is appropriate without an excess of sensory triggers which will increase anxiety for the student. Also, parents/caregivers can provide antecedent behaviors for the teacher to “watch for” during the day such as stroking his hair, which indicates that he is becoming stimulated or excited.

Interviews and questionnaires are simple to complete and can provide a wealth of information for the teachers. They provide multiple perspectives of a situation from a variety of people who are directly involved with the student or from the student himself. These assessments are truly authentic as they meet all five of the criteria as outlined previously.

Checklists and Rating Scales

Checklists and rating scales can also be easily implemented in the classroom particularly when the teacher knows the child well. Checklists provide a sequence of skills that a student must perform in order to accomplish some task (Overtom, 2006). On the other hand, rating scales provide a standardized measure so that the data that is obtained regarding academic or behavioral skills can be quantified (Salvia & Ysseldyke, 2004). Teachers can purchase commercially prepared checklists or make their own depending on the task that is being monitored. Although these checklists lack validity, these instruments can provide a snapshot for what is occurring within the classroom. They are easy to use, do not take much time to administer, and convenient to score. Many students can be taught to monitor their own progress using these assessments, which can provide motivation particularly when they are making progress on their goals. They also provide the visual component that has been identified for students with ASD as well as the tactile that is implemented when they complete the recording of their work.

Checklists and rating scales are used to document the student’s progress in regards to his specified goals. As the data is collected and recorded, their graph serves to identify when progress is being made or when the teacher needs to review the subject matter again. Also, this process provides evidence for the team that progress has been made on both academic and behavioral goals.
Environmental Assessments

Environmental assessments examine how the student performs socially and academically across a variety of settings (Bondurant-Utz, 2002). These assessments make the connection between the individual and his environment while determining how this interrelationship contributes to the everyday experiences that occur. For an individual with ASD who prefers that the environment is orderly, these assessments explore the personal needs as well as the demands placed on him due to the fact that he is in that specific environment. Ecological inventories and sociograms are used to evaluate these two areas.

The first environmental assessment is an ecological inventory, which examines and determines what the content of the curriculum should be for the students as well as the supports that are needed in order for the student to be successful (Ryndak & Alper, 2003). These inventories should be completed for activities at school, community, job site, and others locations that the student participates. For example, if the individual is going to obtain a job, what kind of transportation will be needed? Can he ride the bus on his own or will supports be needed? A considerable amount of this information can be collected by the team members involved with the individual to assure that the student's needs are being met.

The other environmental assessment is the sociometric assessment which focuses on the people skills or social competence within the setting. The sociogram explores the dynamics and interactions among the individual, the classmates, teachers, and others in the classroom (Overton, 2006). This process documents the social status, social functioning, peer interactions, and teacher preferences for this individual, and allows for changes to be made within the environment, including the teaching of a particular social skill. Together these two assessments can evaluate the environment so that optimum learning and skill development can occur.

Conclusion

Individuals with ASD are currently being assessed in a similar manner as their peers. In order for them to be more successful and productive in the classroom, more authentic assessments are required which focus on real life situations and build on the individual's strength. When the five components of authentic assessments are included in the assessment plan (strength-based evaluations, the use of naturalistic data, consideration concerning multiple intelligences, respect for preferred modalities, and reflection about strengths available from outside sources), a more complete evaluation is obtained. These assessments are relatively simple to administer, and would benefit the IEP process as well as increase the student's success in a variety of settings. As more research is obtained regarding best practices for inclusion of students with ASD, a comprehensive assessment must include authentic assessments so every child can reach their fullest potential.
References


