

Combating Attention Deficit Hyperactivity Disorder through the Integration of Multiple Intelligences

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Abstract

In recent years, millions of children have been diagnosed with Attention Deficit Hyperactivity Disorder (ADHD). As a result, schools are ill-equipped to handle the distractive characteristics that often times accompanying those diagnosed with ADHD. Through the use of the Multiple Intelligences, established by Howard Gardner, teachers can begin to construct lessons that meet the needs of all learners, but particularly those individuals diagnosed with ADHD.

Introduction

In a quaint Kansas college town, at a self-esteem workshop geared for girls in 4th – 8th grade, participants and their mothers enthusiastically began reserving spots, well in advance of the start time, for an hour-long presentation on the multiple intelligences. Truth be told, the previous participants, from earlier that morning, had spread by word-of-mouth just how engaging the workshop had been. The classroom was arranged with a variety of colorfully themed flowers and interactive activities indicative of the well needed message that each of us were born unique and of different intellectual strengths (see Appendix A). The workshop was developed based on the reality that our educational system continues to fail our students for a singular outcome – heightened scores on the state assessments. Though assessments are critical to education they are only one instrument from which to gauge student success.

The state of being intelligent was once believed to have been a singular state of existence, indicating that individuals were either intelligent or not intelligent. However, after years of research, Howard Gardner has catapulted the singular definition of intelligence to a multifaceted playground of varied intelligences. According to Gardner (1999), there are eight multiple intelligences with the possibility of a ninth. The eight intelligences are comprised of linguistic, logical-mathematical, musical, bodily-kinesthetic, spatial, interpersonal, intrapersonal, and the naturalistic intelligence (Gardner, 1999). The ninth debatable intelligence is the spiritual/existential intelligence.

Multiple Intelligences Defined

Individuals that possess linguistic intelligence might become poets, speakers, or attorneys. They are individuals who house the ability to learn and use language in order to achieve certain ambitions. Those grounded with a logical-mathematical intelligence have the ability to examine issues in a scientific manner, can analyze problems in a logical fashion, and can carry out mathematical operations. Scientists are often solid candidates for the logical-mathematical intelligence. When one thinks of the typical school-driven intelligences both

linguistic and logical-mathematical intelligence come to mind (Gardner, 1999). Yet, if schools spend the bulk of time reaching out to only two of the eight intelligences, six other intelligences go untapped.

Musical, bodily-kinesthetic, and spatial intelligences are among those that are prominent in the realm of art. Individuals that have a musical intelligence are skilled in performance, composition, and the appreciation of patterns in music. Bodily-kinesthetic intelligence requires the use of various body parts in conjunction with or isolation of another to "solve problems or fashion products" (p. 42). Dancers, mechanics, surgeons, and athletes often exhibit bodily-kinesthetic strengths. Spatial intelligence requires the ability to "recognize and manipulate the patterns of wide space" and "patterns of more confined areas" (p. 42). Often times, surgeons, graphic artists, and those in navigation possess spatial intelligence.

The interpersonal and intrapersonal intelligences are among the two personal intelligences. As indicated by Gardner (1999), an individual with interpersonal intelligence can "understand the intentions, motivations, and desires of other people" and can consequently "work effectively with others" (p. 43). Educators, politicians, and priests are often strong in the realm of interpersonal intelligence. On the other hand, those that have intrapersonal intelligence are said to have a solid working model of self - to include desires, fears, and capacities (Gardner, 1999). Such strengths are used to effectively regulate one's life.

The two modern contenders to the list of intelligences are the naturalist intelligence and the spiritual/existential intelligence. A naturalist can recognize and classify numerous species as well as appropriately categorize new or unfamiliar organisms (Gardner, 1999). Those that might retain the naturalistic intelligence are farmers, gardeners, and hunters. Such individuals can care for, tame, and interact with living creatures. Though Gardner joked about the ninth intelligence, the spiritual/existential intelligence, as being a possible contender to the list of the eight intelligences, he determined throughout his research that this particular intelligence could not be measured objectively as could the other intelligences. Therefore, after careful consideration, he opted not to include the spiritual/existential intelligence in his colorful array of the multiple intelligences.

Attention Deficit Hyperactivity Disorder Defined

According to Berkley (2000), Attention Deficit Hyperactivity Disorder, aka ADHD, is a developmental disorder of self-control. Honos-Webb (2005) argues that ADHD is not a disorder; rather, it is a difference and one that can be viewed as a gift. Yet, Jensen (2004) indicates that ADHD is a chronic illness. Despite the varied differences each of the aforementioned individuals believe that those labeled as ADHD exhibit complications with paying attention, focusing, staying still, thinking prior to responding, maintaining things, and learning while at school (Berkley, 2000; Honos-Webb, 2005; and Jensen, 2004). With further dissection, it has been determined that individuals with ADHD suffer from inattention, distractibility, hyperactivity, impulsivity, or a combination of these issues (Quinn & Stern, 2001).

Alarmingly, ADHD affects more than 2.5 million school-aged children (Barkley, 2000). Approximately, one in every twenty children has attention issues that impact their behavior and/or their ability to learn. Broken down further, one to two children in each classroom suffer from ADHD (Berkley, 2000). Schools in America are not properly equipped to educate students with ADHD because they lack the proper training. Furthermore, schools are organized to cater to

the narrow focus of standardized assessments, as a result of No Child Left Behind (NCLB), with little attention to diversified instruction. To combat this current issue, so that all students can thrive, educators must find practical methods of implementation in order to avoid overburdening the structure of the educational system.

In order to begin the process of change it is important to understand that learning requires a great deal of energy, attention, interest, vigorous reading, in-depth listening, memorization, and concentration (Stein, 2001). Each of which may be problematic for those diagnosed with ADHD. Through the implementation of Howard Gardner's Multiple Intelligences (MI), the educational process can be altered for students diagnosed with ADHD, in order to positively increase the overall academic experience.

Implementation of the Multiple Intelligences

The first step to accurately implementing the MI is to determine the strengths and weaknesses of the very beings that make up the class roster. Educators can use the Connell Multiple Intelligence Questionnaire (Connell, 2005), student interviews, and natural setting observations to determine students' intellectual strengths and weaknesses. Upon identifying individual strengths, educators can begin to mesh the required curriculum content with instructional methods that meet the needs of each learner. Gardner (1999) cautions teachers to understand that such changes require a great deal of time and energy, but are attainable.

Educators who seek to implement the multiple intelligences do so through a process called differentiated instruction. "Differentiating instruction means changing the pace, level, or kind of instruction you provide in response to individual learners' needs, styles, or interests" (Heacox, 2002, p. 5). This is particularly fitting to those diagnosed with ADHD because each student houses a diverse set of specific needs. Precisely, differentiated teachers are willing to accept, embrace, and adjust plans based on the notion that students bring varied commonalities to school (Tomlinson, 1999).

Though schools have drastically cut artistic programs, due to budget cuts and the demands of NCLB, there is much to be said for educators that are willing to integrate the arts throughout the core content. Arts Integration (AI) not only positively impacts the average student, it also reaches those students with special needs - to include those labeled ADHD (Cornett, 2011). In addition, AI promotes critical thinking and problem-solving skills through differentiated instruction. AI is also grounded in well-known learning theories such as Gardner's Multiple Intelligences, Piaget's Stages of Cognitive Development, Maslow's Hierarchy of Needs, and Vygotsky's Social Development (Cornett, 2011). Learners with ADHD benefit from AI because lessons include frequent movement by way of art, drama, dance, and music.

One of the important impacts that the implementation of the MI can have on students is through the education of their existence. Rubado (2002) described a scenario in which middle school students, that were labeled at-risk, were placed in her room as an alternative to retention. The students were taught in small groups, twice a week, over a ten week span, that individuals possess eight multiple intelligences. The students engaged in various MI activities throughout the aforementioned timeframe. At the conclusion of the ten week duration, students were given a specific lesson and asked to create ways in which to meet the lesson using the MI. The students exceeded the teacher's expectations. The Rubado (2002) opportunity broadened the students' educational horizons and provided outlets from which to build confidence in order to empower

the students with future educational decisions. Students labeled with ADHD are often labeled at-risk and in need of opportunities to build their self-confidence (Quinn & Stern, 2001).

Teachers can also integrate thematic teaching in which students are allowed to self-select the method of learning that best meets personal needs (Cornell, 2005). Take for example the teaching of lifecycles. If the ultimate goal is to allow students to master the concept that living things grow and change throughout time (Cornell, 2005), a teacher might provide a variety of activities from which the students can select to master this concept. For example, a teacher might do the following: set up an area in the classroom that houses real butterflies and either provide students with paper and pencils or tape recorders to observe the changes over a specified period of time; provide laptops and pre-selected websites geared towards the lifecycle of butterflies; and provide a reading area with a variety of books on the lifecycle of butterflies with various graphic organizers that the students can complete as they read each resource. A student with ADHD might select a hands-on approach to observe real butterflies and verbally record the daily findings in an electronic journal, whereas, a student who has not been diagnosed with ADHD might opt for the method of reading a variety of books and filling out various graphic organizers on the lifecycle of butterflies. Both methods provide learning opportunities over the same content, but they cater to individual needs and specific multiple intelligences. Jensen (1996) supports the aforementioned by stating that, "Many learners who seem apathetic would be very enthusiastic if the learning was offered in their preferred style" (as cited in Connell, 2005, p. 126).

Through the implementation of the multiple intelligences, students diagnosed with ADHD are afforded the opportunity to learn according to their preferred learning styles. In turn, those diagnosed with ADHD are encouraged to display educational strengths instead of being forced to mold to the status quo of the traditional methods. Furthermore, those very students who struggle to focus become more focused because the lessons are formatted to personal strengths. Moreover, when the multiple intelligences drive the educational environment, students are granted the opportunity to move their bodies through the use of the bodily-kinesthetic intelligence.

Often times, students with ADHD act before they think, but if teachers provide outlets for such urges students can guide that energy to effective resources. For example, during whole group instruction, students with ADHD can use whiteboards to write their answers down immediately, instead of shouting the answers out loud, and hold the boards up for the teacher to acknowledge their contributions quietly. This method would allow students to disrupt the learning environment less, but enhance their linguistic intelligence more.

Teachers could also seek to be trained in the Kansas derived Bal-A-Vis-X program that was created by Bill Hubert. "Bal-A-Vis-X is a series of Balance/Auditory/Vision Exercises, of varied complexity, most of which are deeply rooted in rhythm" and the "exercises require full-body coordination and focus attention" while using items such as "beanbags, racquetballs, balance boards, and multiple principles and activities from Educational Kinesiology" (Hubert, 2001, p. 3). This program would benefit students diagnosed with ADHD due to the fact that it increases attention span while decreasing impulsivity (Hubert, 2011). Specifically, teachers could train students how to identify when they begin to lose academic focus. At such moments, a student could quietly step up on the strategically placed classroom balance board, to rebalance his/her mind and body, in order to effectively regain academic focus.

In addition to allowing students to move throughout the day, teachers should also consider the integration of the arts. In a study conducted by Hall (1952), it was found that

students who listened to music had higher comprehension than those who did not (as cited in Jensen, 2001). Arnoff (1988) also revealed that it is natural for children to relate to music and body movement. Furthermore, when students become aware of their bodily-kinesthetic responses, they also begin to better understand who they are and how they feel, which in turn promotes the use of the intrapersonal intelligence (Arnoff, 1988). Sir Ken Robinson (2000) stated it best when unveiling that, "If the human mind was restricted to academic intelligence, most of human culture would not have happened" (as cited in Cornett, 2011, p. 11). When the arts are integrated into the core content, students diagnosed with ADHD are afforded the opportunity to present personal intellectual strengths that might not otherwise be presented.

Conclusion

If teachers are to academically support the multitude of students that have been diagnosed with ADHD they must begin to view education through a modern lens instead of the often unsuccessful traditional lens. Students in general need to be educated through the multiple intelligences, but those students diagnosed with ADHD need it even more. It is not enough to educate students using the two most common intelligences (e.g., linguistic and logical-mathematical intelligences), as has been done for years, but teachers must seek to grow the learning environment, and students' minds, through the integration of the eight intelligences as outlined by Howard Gardner. In doing so, students will begin to understand their valuable contributions to the learning environment and in turn positively extend that newfound self-confidence to the world beyond school, thus resulting in a better society from which to belong.

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