

A Study of Students on the Autism Spectrum Transformation in a High School Transition Program

Courteny Moore-Gumora

California State University, East Bay

This study brings together the theoretical and empirical practices of traditional informative education, radical transformative education, and sustainable education reform. An analysis of learning disability and constructivist learning are used to elucidate the socio-complexity of historic academic constructs concerning educational leadership for social justice. This study is the beginning of a larger future exploration of alternative academic practices as transformative learning in radical school reform. The study considers how transformative education practices produce radical increase in performance outcomes for participants with Autism Spectrum Disorder; this effective impact with severely diagnosed atypical learning population challenge conventional disabled learning theory practices. The ontological student perspective deliberates where in the realm of education does the atypical learner particularly with ASD (specifically with Asperger Syndrome) exist? The students are diagnosed with High Functioning Autism and participate in an urban high school transition program called the Asperger Inclusion Program (AsIP) and an extra-curricular program called Ethos. The study provides access to student experiences that drive discussion to ponder equity and power in pedagogy and society by removing historically tendentious curricular constraints.

Students with Autism Spectrum Disorders (ASD) face significant challenges in socialization, communication, and flexible behavior and thinking that impact their school experience. For purposes of this study, ASD refers to a broad definition of autism that manifest in severe, moderate, and mild forms as proposed for the edition of the *Diagnostic and Statistical Manual of Mental Disorders (DSM-5)* published in May 2013 (American Psychiatric Association 2012). As is relevant to this study, High Functioning Autism (HFA) and Asperger Syndrome (AS) are commonly used to refer to individuals with mild forms of ASD. A neurological-based developmental disability, the autism spectrum is characterized by qualitative impairments in reciprocal interaction, and verbal and/or non-verbal communication and the presence of restricted, repetitive, or stereotyped patterns of activities and interests. These core challenges manifest differently for each individual while changing across the lifespan (Attwood, 2008).

**Educational Leadership and Administration: Teaching and Program Development
Volume 25, March 2014**

ISSN 1532-0723 © 2014 California Association of Professors of Educational Administration

Once rare, ASD has reached epidemic proportions with estimates as high as 1 in 50 school aged children identified in the United States (Blumberg et al., 2013). Already a heavy burden on educational facilities, autism has had a large impact on public schooling, and the number of students coming of age who have autism has had an enormous effect on the economy as the affected children reach adulthood (Matson & Kozlowski, 2012). Data from the Autism and Developmental Disabilities Monitoring (ADDM) Network support the inference that there has been an increase in ASD recognition by community providers. While all children defined as ASD cases in ADDM have previously come to the attention of a special education or health care provider in their communities, not all of these children had a previous diagnosis or school classification specific to ASD. Each surveillance year, a percentage of children who had clear documentation of autism traits in their records, but not a specific ASD diagnosis or educational placement, are nonetheless classified as ASD cases by ADDM clinical reviewers (National Health Statistics Reports *Number 65* March 20, 2013).

Originating as the Education of All Handicapped Children Act in 1975, the Individuals with Disabilities Education Act (IDEA, 1990; 2004) ensures equal educational opportunities for children identified with disabilities, including those affected by autism. IDEA entitles all children the right to a Free Appropriate Public Education (FAPE) within the Least Restrictive Environment (LRE); educated alongside typically developing peers to the maximum extent possible. Students that have an Individualized Education Plan (IEP) that designates special education and related services to prepare for further education, employment, and independent living to the maximum extent possible. In addition, parents are afforded the right to exercise due process to ensure that their child is receiving an appropriate education. The U.S. Department of Education is mandated to report yearly to Congress in accordance with IDEA. When this policy was first enacted, cases of autism in U.S. schools were few with identified cases relegated to other disability categories (e.g., Other Health Impaired, Speech and Language Delay, Emotional Behavioral Disorders). As the rate of autism steadily increased, a decision was made to list autism as a separate category of disability starting in 1991 (Apling & Jones, 2002). Once considered a low incidence disability, statistically students receiving services for autism have increased (marginally with emotional disturbance and intellectual disability) among the thirteen disability enrollment categories according to the California Department of Education (CDE) (2011) Special Education Division.

Statement of the Problem

State law emphasizes that a student is to be referred for special education instruction and services *only* after the resources of the general education program have been considered and appropriately utilized. In the unified school districts this "pre-referral" requirement is usually met by utilizing the Student Study Team (SST) process. The SST is typically composed of the student and parents, a school administrator, counselor, the student's general class teachers, the school psychologist, and a special education teacher. During the SST meeting, members review the student's educational strengths, areas of concern, and previous attempts at interventions. Members discuss possible programs and interventions to meet the student's needs and an action plan is developed (Thompson 1999).

Upon receiving a referral from the SST to the school psychologist for a special education assessment, parents are notified of the referral and development of an evaluation plan by a school psychologist. The school psychologist notifies the parents that their student

has been referred for special education assessment and the reasons why the referral was made. The school psychologist enters the referral information on the WISER (Web Integrated Special Education Resources) Referral Screen. The school psychologist then has fifteen calendar days in which to send the parent a written evaluation plan and related documents.

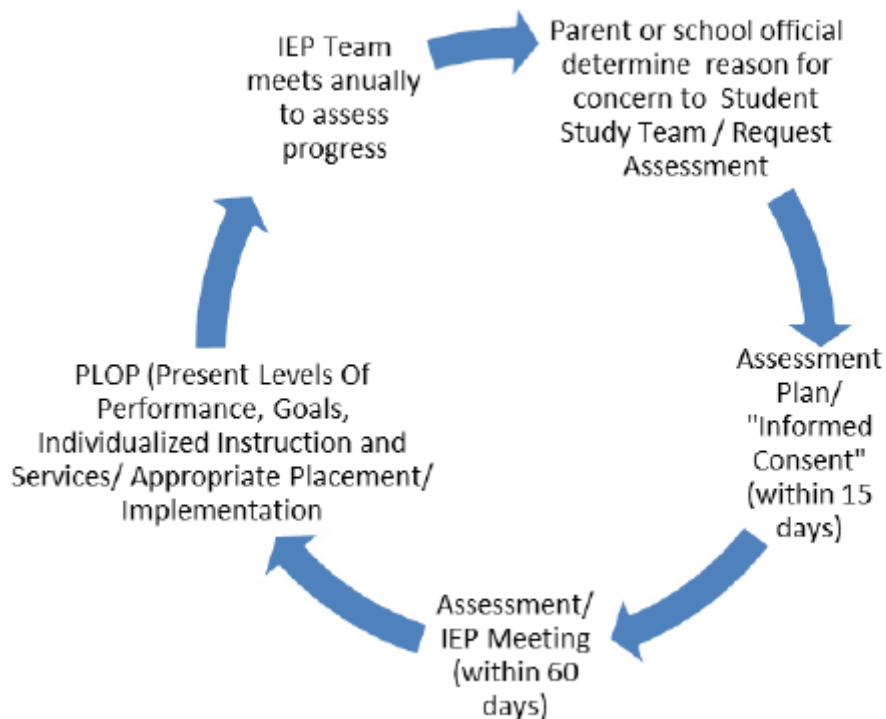


Figure 1. IEP process as initiated by a school official or parent.

With the increasing number of students identified with ASD, the need for public schools to address appropriate and ethical diagnoses, services, and effective delivery of curriculum is not only an educational concern but also a social justice concern. During an informal interview with the researcher and a practicing district psychologist the following statement was made in response to the question: *What specific tests do you give students that are referred for Autism supports either very impacted or less so, and are there one or two specific tests you use?* The following is a partial response from the psychologist.

Diagnosing Asperger is a lot more subjective than diagnosing a learning disability, which is just based on test scores. One person's take on "restricted interests" might be different than another person's. You probably know about the new ASC classes, right? They have a mix of "quirky" kids with similar behaviors, some with Autism/Asperger diagnosis, some with SLI (Speech Language Impaired) and some with SLD (Specific Learning Disability). They just started two of those classes at the high school level last year and we have two at middle school. I think they probably want to keep the ASIP (Asperger Inclusion Program) classes for the more straightforward Asperger kids and

your kids are higher functioning academically than the kids in the ASC program. Another group of kids who might be a good fit for your program are kids with Nonverbal Learning Disabilities, a much under diagnosed group who don't quite fit into any of the eligibility categories but who have many similar characteristics to kids with Asperger” (Weaver, 2010).

The perspective of the school psychologist demonstrates the connection between student diagnostic criteria eligibility and the complex process of accurate academic placement. This process is significantly influenced by the students PLOP (Present Level of Performance), which may pose complications in light of the discrepant learning profiles of students on the autism spectrum, as well as all struggling students. As the coordinator of the Asperger Inclusion Program, I have students with diagnostic tests results indicating and interpreted as not able to access grade level general education curriculum, however often perform at peer expectation and excel academically with appropriate supports despite significant lower scores in very effective and reliable diagnostics such as Beery VMI Fifth Edition, Test of Visual Perceptual Skills (TVPS), Test of Auditory Processing Skills (TAPS), The Behavior Assessment System for Children-Second Edition (BASC-2), Wechsler Intelligence Scale for Children-Fourth Edition (WISC-IV), Adaptive Behavior Assessment System-Second Edition (ABAS-II), and Gilliam Autism Rating Scale-2nd Edition (GARS-2). Evaluations explicitly include *DSM* diagnostic and district level educational code eligibility tools, with individualized approaches to the student. However the subjectivity in the determination of diagnosis, eligibility and individualized education plan for the student as the school psychologist implies, is as implicit as the social cues that evade these students. The evaluations at times are challenging to determine. Considering the variability in the range of expression of core characteristics in ASD, there is a need to elucidate these complex issues by exploring experiences of students with ASD within a contextually relevant educational setting.

This study considers the practices servicing diverse student populations, specifically from the perspective of the relatively recent sociological phenomena Curt Dudley-Marling conveys in his article, “The Social Construction of Learning Disabilities” (2004). The author argued the underpinning technical gaze that dominated learning disabilities theory and practice was the assumption *that learning disabilities were a pathology that resided in the heads of individual students, rather than in the realm of academic institutional constructs* (Gergen 1990). To be clear how this connects to this study of transitioning students with ASD, consider that Dudley-Marling is suggesting as a social construct that schools label students learning disabled when the educational pedagogy is not able to reach the student; assuming the pathology lies in the heads of categorical ‘disabled learners,’ not the pedagogy. The study concludes that the students begin to identify themselves as disabled and engaged with the learning community accordingly which impacted student performance. This study considers removing these socialized learning disabled constructs from the learning experience, through transformative education practice, to *re-construct the student learning identity*. The current public school student population is so diverse this study concludes the need for inclusive pedagogical development and design, as well as shifting assumptions and beliefs away from students *not* able to access learning. The study aims to shift thinking toward innovative techniques in new learning paradigms and programs.

Sociological History

The following is a brief theoretical framework on how the impact of social constructs of race has shaped inequities within the educational system. Relevant to this study is the theoretical foundation of public education's impact on students within an underrepresented population. Ladson-Billings and Tate, (1995) theorize race and use it as an analytic tool for understanding school inequity. This critical-race theory offers a political perspective of economic and political structures that influence school policy-making. While this research study is not intended to look at school performance of students with autism through the lens of critical race theory, the study proposes a parallel consistent with other underserved populations, as a growing population that is dramatically underrepresented within educational research, practice, advocacy and policy. Gross, Booker and Goldhaber (2009) noted that 'all student' level research revealed specific populations are not benefiting from the implementation of reform efforts. The data demonstrated African American, English Language Learners (ELL) and special education students exhibited no significant benefit from the Comprehensive School Reform Demonstration (CSR) project and its successor the Comprehensive School Reform (CSR) project that the federal government devoted enormous resources between the late 1980s and early 2000s. It can be argued that reform policy, design and implementation are ineffective due to a lack of specific focus or understanding of the significant issues for these populations. Critical race theory asserts historic economic inequities that construct financial incentives for schools are ineffective by design to specific site community and culture. The funding penalizes lower performing schools, impose tighter restraint and pressure for performance in conditions that are economically and academically tenuous; this study asserts transformative education addresses this deficit.

Student Level Research

This study considers the efficacy of reform using student level research, specifically considering populations of students requiring Individualized Educational Plan (IEP). It also considers the impact on typically developing / general education student data that also showed very minimal productivity from financial incentive reform efforts. To understand why data continues to indicate unsuccessful school performances, despite continued reform implementation, Gross, Booker, and Goldhaber (2009) studied student level research using disaggregated data from specific populations within a school site or district which provided the opportunity to examine the differential effects of CSR awards across students of varying populations. This typically cannot be done with school or district level performance indicators, thus making it difficult for policy makers and school leaders to understand the specific reasons why the reforms were not successful. The study yielded student level significance:

- Cooper and Jordan (2003) suggest the recruitment of African American male teachers along with CSR design implementation will be necessary to meet the unique needs of African American male students.
- Hamann, Zuliani, and Hudak (2001) find that the CSR designs failed to provide specific accommodations for English Language Learner (ELL) students, providing little additional benefit to this population.

- Koh and Robertson (2003) investigate teacher perspectives of three CSR models and determined the fast-paced curriculum and lack of modifications presented more challenges for the special education students.

The question if school success should be measured solely by standardized testing may be argued; however, the failure for schools to produce students performing at standardized state test levels is revealed by a continually below basic test score data. Using analytic techniques for non-experimental studies to investigate the effects of federal CSR awards on student achievement, the authors (Gross et al., 2009) find that CSR funding:

- Did not significantly affect student reading performance of general education students data gathered for the study.
- The effect on math performance varied across different student types. CSR funding did affect some students, but it has not always served to improve the performance of all student subgroups.
- The largest effects being only 4% of a standard deviation [one standard deviation difference in raw score equates to approximately 8 to 10 points in the Texas Learning

Index (TLI)] scaled score—the scale used to report TAAS (Texas Accessibility of Academic Skills) and TAKS (Texas Assessment of Knowledge and Skills) results to schools and students.

Constructs of the Individual Learner

Research shows Constructivist Learning epistemology's central tenet is that the individual learner constructs knowledge of the world by interacting with it. The development of this field of re-strategizing reform efforts to cognitive based pedagogical practices requires effective scientific research to ensure legitimacy. The intellectual health of any field of study depends on persistent and penetrating critique. Therefore, the ability of a field such as learning disabilities to shield itself from criticism in the short term may seal its fate in the long term (Dudley-Marling & Dippo, 1995). In the area of learning disabilities, Reid and Valle (2004) challenge conventional and naturalized ways of thinking about difference by which they seek to bring greater balance to the intellectual grounding for understanding school failure. Ryan (2007) addresses that essential critical thinking skills, in-depth social insight and meaningful familiarity are necessary to affect and implement educational reform that develops pedagogy to embrace change productivity and social justice in educational practices and schools. Knuth and Cunningham (1993) propose several critical principles in designing Constructivist Learning:

- Authentic learner tasks are embedded in contexts that are relevant in the real world.
- Learners are provided with the social context where dialogue and negotiation of meaning develop a means for developing and refining ideas.
- Learners are encouraged to have voice and ownership in the learning process.
- Learners experience the knowledge construction process.

- Learners reflect on their own thinking and decision-making process (Knuth & Cunningham 1993).

Heterogeneity describes the student diversity in classroom/school domains; including the wide spectrum of diverse student ability. This study concerns *homogeneity* in pedagogical practice and curriculum delivery, despite diverse student populations and learning variances. Relevant to academic and life-long learning performance outcomes, students with ASD are consistent with other marginalized populations not connecting with curriculum. The study aims to explore the experience of students with ASD in an inclusive urban high school. Understanding the pathology that resides in the experience of individual students is essential when considering the delivery of curriculum designed for all students to access. The responsibility to explore and reach that pathway remains in the realm of the academic institution.

Since *Brown vs. Board of Education* (1954) mandated that public schools cannot be segregated based on race, the community members began to realize that special education students were also being segregated, and being sent to state hospitals. *Daniel R.R. v. State Board of Education* (1989) began a basic inclusion movement and the court ruled that if a student can receive a satisfactory education in the mainstream classroom, he or she must be educated there as the Least Restricted Environment (LRE). To understand this inclusive legislation is to understand the implications as limitations of the *homogeneity*-based pedagogical practices despite our *heterogenetic* public student population. The study discovered Transformative Education practices were paramount, and unexpectedly aligned with the design of the program researched for transitioning students with ASD, which informed student performance process. The study explores as ethnography the transformative process of ten participants in the Asperger Inclusion Program (AsIP) for students transitioning from an urban high school setting to college, which includes the extracurricular extension referred to as Ethos. The study considers the experience in the context of specialized education, and the broader contexts of curricular development and instruction concerning school reform and design. Fundamentally, the study intends to examine and explain the extent to which these students experience transformation during their transition to higher education as participants in this progressive program; and to capture the ontological perspective of the students participating in a Transformative Education program design.

Methodology

This study employs a multiple case-study research design using qualitative methods grounded in the ethnographic tradition of anthropology (Patton, 2002). Consistent with the research characteristics described in the table at the end of this article, the design and methods were selected as appropriate for exploring questions pertaining to the people and phenomena situated within the AsIP/ Ethos program. The participants include: 8 male students — 2 African American, 1 Asian, 1 Asian / Caucasian mixed race, 1 Caucasian, 2 Mexican, 1 Mexican / Caucasian mixed race; within the age range of 18-22 years and 2 female African American students within the age range of 19-21 years old. Consistent with the former *DSM-IV* diagnostic criteria (American Psychological Association, 2000) all of the participants have been diagnosed with a mild form of ASD corresponding to either HFA or AS to qualify for participation in AsIP. Students demonstrate individualized manifestation of the impact of categorical characteristics and academic ability. Diagnostic eligibility confirmed participants

presented varying degrees of difficulty establishing social relations with peers, accessing academic curriculum due to core challenges in social communication and flexible behavior associated with ASD.

Data Collection/Analysis/Verification

The interviews were approximately 30 minutes long and participants agreed to be available at a later time for possible future data collection. All interviews were audio-recorded and transcribed. Participant observations include observation field notes, reflection logs, teacher comments and parent perspectives. Artifacts collected from participants include student records, academic work, and artwork. An inductive analytic approach was used to examine the accumulated qualitative data (transcribed interviews, field note observations, artifacts and related documents) gathered in the field. The data were examined for meaningful and symbolic content through an inquiry driven and exploratory process using the constant comparative method (Glaser & Strauss, 1967). The constant comparison method involves an iterative process of reviewing, sorting, assembling and coding multiple sources of data to generate detailed narratives, emergent themes, hypotheses and theory “grounded” in the data. Transcriptions required writing detailed descriptions of the student affect and individual behaviors and overall attitude/demeanor during the interview and observations, including the transactions between researcher and student. The researcher next read through the data to gain a general sense of the material. The next phase involved coding and compiling the data for each of the 10 participants to construct *staff and student narratives*. The final phase of analysis involved coding the data within- and across-cases to identify *emergent themes*. For this final phase, the researcher utilized visual display tables (Miles & Huberman, 1992) and the Hyper Researcher Program (Copyright © 1997-2013 ResearchWare, Inc.) as tools to support the coding process. Ultimately, the goal was to assemble a coherent understanding of the data by building a logical chain of evidence to support this study’s findings.

Sophisticated rigor was applied using detailed description and triangulation of data sources, participants, methodologies and theoretical perspectives for quality assurance in the verification and application of methods (Denzin, 1978). For this study, a major source of triangulation consisted of corroborating evidence with a team of four independent reviewers using educators with either either an MA in Educational Psychology or Ed.D. in Educational Leadership and Social Justice. This involved successive stages for identifying common themes based on a systematic review of student interview data and instructional assistant interview data. Initially, two independent reviewers were asked to read interview data without knowledge of one another’s findings. Specific and intentional measures were taken to prevent cross contamination of research findings by electronically sending each independent reviewer a personal table consisting of only student questions and one column to record key themes. Next, the first two reviewers were shown the findings of the second two reviewers and were asked to identify common themes. The second two reviewers where then asked to confirm the common themes that were identified by the first two reviewers. At the conclusion of each successive stage, the researcher constructed a matrix as a visual display table showing evidence for the occurrence of common themes by the researcher and each reviewer.

Findings

In this ethnographic study of students with Asperger Syndrome participating in a transition program to post-secondary education and life-goals as life-long learning, three major themes emerged that are embedded within two overarching conceptual domains. The first conceptual domain is the *Social Construction of Learning and Language*, within which is the first emergent theme, *Self-Perception* (how students constructed identities), and the second theme *Connectedness* (with members of AsIP and others). The second conceptual domain is *Radical Individualism as Community Kaleidoscope* within which the third emergent theme is *Transformative Shifts in Awareness* regarding how students' view of themselves and learning experiences altered engagement in school and life. The emergent themes of *Self-Perception*, *Connectedness* and *Transformative Shifts in Awareness* serve to elucidate the socio-complexity in the learning community from an ontological perspective that considers student pathology in relation to constructivist learning pedagogy. Embedded in the program design are in-depth inquiry driven discussions and experiences to enhance interpersonal relationships, effective communication, and higher level cognition. The exploration examines whether the in-depth inquiry driven design does contribute to academic and lifelong learning, fundamentally improving students' over-all self-perception, empowerment, and actualization of life goals, which is the underpinning purpose of an exceptional education.

Conceptual Domain 1: Social Constructs of Learning and Language

Guided by initial questions, the first overarching conceptual domain to emerge derives from what Dudley-Marling (2004) conveyed in his article, "The Social Construction of Learning Disabilities." His critique of the ideology of individualism situates individual success and failure in the heads of individuals as a means of introducing an alternative perspective—***social constructivism***—that locates learning and learning problems in the context of human relations and activity. The primary argument developed here is that one cannot be learning disabled on one's own. It takes a complex system of interactions performed in just the right way, at the right time; on the stage we call school to make a learning disability (Dudley-Marling 2004). This is reflected in how the participating students have come to identify and see themselves from the context of the socially constructed disabled learning environment and the impact of this perception on performance outcomes.

Emergent Theme 1: Self-Perception

Intervention Specialists interviewed to capture their experience and philosophy as a team member in the Asperger Inclusion Program revealed an experience working with a student was making a documentary film for a class filming other students on the spectrum; asking basic questions about their lives. After watching the final edited version of documentary two facts became evident. The majority of students affected by Asperger were unable to describe the symptoms or hallmarks of the syndrome and significantly every student in the documentary reported an overwhelming feeling of sadness and depression. The study focused on an in-depth exploration to the common origin of depressions among students, revealing as originated in their early stages of school. A correlation between expressed student anger, depression and the constructed student identity within the context of common early *disabled*

learning practices became apparent. While these experiences may not be able to completely account for diagnosed clinical depression, the common experience emerged as significant in the findings; and helped to analyze a relationship correlate to student performance. The findings reveal a relationship between how students perceive themselves and others who share their experience, and levels of student outcome as evidence that a series of scenarios, (within the complex system of the learning disabled school setting) and interactions, construct self-perception that impacts access to learning. Moreover, conscious events that constructed self-perception as learning disabled in the school setting *hindered* early performance outcomes and constituted a response to early school experience as anger and depression; resulting in a socially constructed learning disability.

This study explored how students participating in the AsIP experienced a paradigm shift in self-perception through understanding the social constructs of learning through language constructs as in-depth transformative curriculum predominately developed through discussion that dramatically altered learning identity and improved performance outcomes. The findings suggest that over the course of their school experience the participants' self-perception evolved as they re-constructed identities as learners and individuals within the social construct of Constructivist Learning practices. In particular, interview data revealed students' self-perception as influenced by isolation and atypical experiences and social variances underlined how language constructs social learning reality through perception in the context of human relations and activities. Through participation in the AsIP program, their self-perception transformed as a reflection of inner growth and development and intrapersonal empowerment.

Emergent Theme 2: Connectedness

Connecting with members of AsIP and others in student social learning community was paramount as a paradigm for transformation. Interpretations draw on the notion of linguistics as a causal variable of world view (*Stanford Encyclopedia of Philosophy*), students become cognizant that they are experiencing learning, community, and the world through constructs developed in language. Franz Boaz (1940) considered to be the founder of Modern Anthropology and Descriptive Linguistic Thought, explained when studying linguistics that we consider the finite concepts conveyed through spoken language. Boaz asserted if we did not have the language, we were incapable of expressing a concept or thought. Sapir's Linguistic Determination (1966) stated that language determined how we viewed and thought about the world; Sapir's Strong Determinism (1966), the extreme version of the theory, suggested language actually determined thought. Lisa Delpit (1993) considered the *connectedness* between language, cultural awareness, and cognitive process when teaching other people's children and considered language as a cultural construct that impacted the ability to teach and learn concepts. The study data support introspective communication, social/personal identity development and transformative introspection were critical for students to access *connectedness* in community, academics and life-long learning.

Conceptual Domain 2: Radical Individualism as Community Kaleidoscope

One of the most frequent grievances expressed by AsIP students is that in education you are not allowed to be an individual, and having autism is an individual autonomous experience in the world. The participants are students with radical individualism, yet they report a strong intention as connected to learning community. One of our most powerful cultural myths is the self-sufficient, “rugged individual,” who overcomes life’s adversities on her or his own through sheer determination, neither needing nor accepting the help of others. Through the lens of rugged individualism, those who need help (those who are unable to confront life’s problems on their own) are often seen as inept (lacking determination or skill) and those who accept help as weak (Dudley-Marling 2004). An in-depth understanding of oneself and relatedness to community and social constructs discussed as *self-perception and connectedness* allowed students to look outside of their formative isolated context producing low performance, to re-construct their identity within the learning community inclusively and increased student performance.

Emergent Theme 3: Transformative Shifts in Awareness

The findings suggest a common pattern whereby the evolution of their shifts in awareness was influenced by a number of factors through participation in the AsIP program including: transformation through communication, transformative thinking, discourse with others, re-constructing a healthy identity, internal triumphs, and personal development for social community/school success. Student interview data suggests that the participants experienced a transformation through communication, which contributed to *Transformative Shifts in Awareness*. Interpretations draw on research pertaining to “Transformative Research Design” that gives close consideration to individuals who experience discrimination and oppression, including but not limited to race/ethnicity, disability, immigrant status, political conflicts, sexual orientation, poverty, gender and age (Mertens, 2010). Providing additional supporting evidence for this emergent theme, students also experienced transformative thinking. The data are closely aligned with a set of assumptions and procedures used in Transformative Research Design (Mertens, 2009), as follows:

- Underlying assumptions that rely on ethical stances of inclusion and challenge oppressive social structures.
- An entry process into the community that is designed to build trust and make goals and strategies transparent.
- Dissemination of findings in ways that encourage use of the results to enhance social justice and human rights.

While the diagnoses of Asperger Syndrome may explain *why* these students have specific challenges, articulates *how* (within the learning community) student identities are constructed as they continued to struggle. Lincoln and Guba (1985) define paradigms as systemic sets of beliefs that help us make sense of the world. This can be demonstrated with respect to the beliefs of students with ASD learning impacted by the context of diagnosed disability. The diagnostic evaluation of the students determined psychological and academic challenges. In fact early in their academic experiences, none of the participants IEP team recommended and

education plan for advanced degrees. However radically unexpected, each participant transition into higher education and life-long learning demonstrate transformative results. An alternative conception of learning constructed within the discourse of individualism, considers that learning and learning problems dwell in activities and practices situated in relations rather than in the heads of individual students (Gergen, 1990).

References

- Abbott, J. and Ryan, T. 1999. Constructing knowledge, reconstructing schooling. *Educational Leadership*, ASCD, 57(3): 66–69
- Apling, R. N. & Jones, N. L. (2004). *The individuals with disabilities education act (IDEA): implications of selected provisions of the no child left behind act (NCLBA): RL31838*. Congressional Research Service: Report.
- Asante, M. K. (1991). The Afrocentric idea in education. *The Journal of Negro Education*, 60(2), 170-180.
- Banks, A. (2001). Citizenship education and diversity: Implications for teacher education *Journal of Teacher Education*. 52 (5), 5-16.
- Berger, P. L. and T. Luckmann (1966). *Social Construction of Reality: A treatise in the sociology of knowledge*, Garden City, NY: Anchor Books.
- Boas, Franz. (1940). *Race, language, and culture*. University of Chicago Press.
- Burke, R. V., Andersen, M. N., Bowen, S. L., Howard, M. R., & Allen, K. D. (2010). Evaluation of two instruction methods to increase employment options for young adults with autism spectrum disorders. *Research in Developmental Disabilities*, 31(6), 1223-1233.
- Chang, F. L. F., & Greenough, W. T. (1982). Lateralized effects of monocular training on dendritic branching in adult split-brain rats. *Brain Research*, 232(2), 283-292.
- Cheung, C.; Chua, S. E.; Cheung, V. (2009) White matter fractional anisotropy differences and correlates of diagnostic symptoms in Autism. *Journal of Child Psychology and Psychiatry*, 50 (9), 1102-1112.
- Clark, M. C. (1993). Transformational learning. *New Directions for Adult and Continuing Education*, 1993(57), 47-56.
- Confrey, J. (1990). A review of the research on student conceptions in mathematics, science, and programming. *Review of Research in Education*, 16, 3-56.
- Crosby, P. H. (2009). Parent perceptions and observations of their children with autism age 14 to 26 concerning generalization of daily living skills at home and in the community. Dissertation, Walden University. 224.
- Danaher, J., Shaw, E. & Lazara, A. (2008). Personnel certification and specialized service providers for Autism Spectrum Disorders queries: An occasional paper compiling states approaches to current topics. *National early childhood technical assistance center*. 5.
- Delpit, L., & Ravitch, D. (1995). Cultural conflict and 'anti-intellectualism'. *Education Week*, 14(23), 36.
- Denzin & Y.S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 105-117). Thousand Oaks, CA: Sage.
- Dudley-Marling, Curt. Social Constructs of Learning Disability. *Journal of Learning Disabilities*. Nov/Dec2004, Vol. 37 Issue 6, 482-489.

- Dyches, T., Wilder, L. K. & Sudweeks, R. R. (2004). Multicultural issues in Autism. *Journal of autism and developmental disorders*. 34 (2), 211-222.
- Foner, N. (1998). West Indian identity in the Diaspora: Comparative and historical perspectives. *Latin American Perspectives*, 25(3), 173-188.
- Frea, W. D. (2010). Preparing adolescents with Autism for successful futures. *Exceptional Parent*. 40 (4), 26-29.
- Gee, J.P. (2000). Identity as an analytic lens for research in education. *Review of Research in Education*, 25, 99-125.
- Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Aldine Transaction
- Gross, B. T., Booker, K. & Goldhaber, D. (2009). Boosting student achievement: The effect of comprehensive school reform on student achievement. *Educational Evaluation and Policy Analysis*. 31,111.
- Grundy, S. (1987). *Curriculum: product or praxis?* (Vol. 19). London: Falmer Press.
- Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. In N. K. Habermas, J (1984). Theory of communicative action. (tr. T. McCarthy). Boston.
- Habermas, J (1987). Theory of communicative action. (tr. T. McCarthy). Boston.
- Habermas, J. (1972). Knowledge and human interests. (tr. J. Shapiro) London: Heinemann.
- Habermas, J. (1974). Theory and practice. (tr. J. Viertel) London: Heinemann.
- Holtz, K. D., Owings, A. K. & Ziegert, N.(2006) Life journey through Autism: A guide for transition to adulthood. *Organization for Autism Research*. 86.
- Jindal-Snape, D., Douglas, W. & Topping, K. J. (2005). Effective education for children with Autistic Spectrum Disorder: Perceptions of parents and professionals. *International Journal of Special Education*. 20 (1), 77-87.
- Jindal-Snape, D., Douglas, W. & Topping, K. J. (2006). Autistic spectrum disorders and primary-secondary transition, *International Journal of Special Education*. 21 (2), 18-31.
- Kelly, A., Garnett, M., Attwood T., & Peterson, C. (2008). Autism spectrum symptomatology in children: The impact of family and peer relationships. *Journal of Abnormal Child Psychology*. 36 (7), 1069-1081.
- Kotzee, B. (2010). Seven posers in the constructivist classroom. *London Review of Education*, 8(2), 177-187.
- Krashen, S. (1989). We acquire vocabulary and spelling by reading: Additional evidence for the input hypothesis. *The modern language journal*, 73(4), 440-464.
- Ladson-Billings, G. & Tate, W. (1995). Toward a critical race theory of education. *Teachers College Record*. 93, 47-68.
- Larochelle, M., Bednarz, N., & Garrison, J. (Eds.). (1998). *Constructivism and education*. Cambridge University Press.
- Lilly, J. D. & Reed, D. (2004). Perceptions of psychological contract violations in school districts that serve children with autism spectrum disorder: An exploratory qualitative study. *Journal of Applied School Psychology*. 20 (1), 27-45.
- Loiacono, V. & Allen, B. (2008). Are special education teachers prepared to teach the increasing number of students diagnosed with autism? *International Journal of Special Education*. 23 (2), 120-127.

- Malloy, W. & Malloy, C. (1997). Deconstructing the impediments to responsible inclusion through the essential schools option. *Journal for a Just & Caring Education*. 3 (4), 459.
- Manor-Binyamini, I. (2010). The prevalence and characteristics of psychiatric disorders among adolescent Bedouin with mild to moderate intellectual disability. *International Journal of Special Education*. 25 (2), 26-33.
- Matson, J. L., Neal, D., Worley, J. A., Kozlowski, A. M. & Fodstad, J. C. (2012). Factor structure of the Matson evaluation of social skills with Youngsters-II (MESSY-II). *Research in Developmental Disabilities*. 33 (6), 2067-2071.
- Mayes, S. D., Calhoun, S. L., Murray & M. J. (2009). Comparison of scores on the checklist for autism spectrum disorder, childhood autism rating scale, and Gilliam Asperger Disorder scale for children with low functioning autism, high functioning autism, Asperger disorder, ADHD, and typical development, *Journal of Autism and Developmental Caps Disorders*. 39 (12) 1682-1693.
- Miles, M.B.. & Huberman, A.M. (1994). *Qualitative data analysis* (2nd edition). Thousand Oaks, CA: Sage Publications.
- Mouffe, C. (1996). Democracy, power, and the political. democracy and difference (pp. 245-255). Princeton: University Press. T. E. (2010). *International Journal of Educational Reformcaps*. 19 (1), 2-13.
- Newman, L. (2007). Secondary school experiences of students with autism: facts from NLTS2. NCSER 2007-3005. *National Center for Special Education Research*. 16
- Okihiro, G. Y. (1994). *Margins and mainstreams: Asians in American history and culture*. University of Washington Press.
- Osborne, J. (2003). Art and the child with Autism: Therapy or education? *Early Child Development and Care*, 173 (4), 411-23.
- Osborne, L. A. & Reed, P. (2011). School factors associated with mainstream progress in secondary education for included pupils with autism spectrum disorders. *Research in Autism Spectrum Disorders*. 5 (3), 1253-1263.
- Patton, M.Q. (2002). *Qualitative research and evaluation methods*. Thousand Oaks, CA: Sage Publications.
- Reid, K., & Valle, J. (2004) The discursive practice of learning disability: Implications for Instruction and parent school relations, *Journal of Learning Disability*, 37(6), 466-481.
- Ravitch, D. (1990). Diversity and democracy. *American Educator*, 14(16), 18-20.
- Rousseau, Marilyn K., et al. "Sentence combining as a technique for increasing adjective use in writing by students with autism." *Research in developmental disabilities* 15.1 (1994): 19-37.
- Ryan, D. (2007) Just Thinking, reflecting, and acting in schools: A case of social justice leadership. *The Journal of Cases in Educational Leadership* 10(2), 20-65
- Sansosti, F. J., Powell-Smith, Cowan, K. A. (2010). High-functioning Autism/Asperger syndrome in schools: assessment and intervention: Practical intervention in the schools series. *Richard J. Guilford Publications*. 258.
- Sapir, Edward (1921) *Language: An introduction to the study of speech*. New York: Harcourt, Brace and World) [reprinted in 1949].
- Shirvani, H. (2009). Examining an assessment strategy on high school mathematics achievement: Daily quizzes vs. weekly tests. *American Secondary Education*, 38(1), 34-45.

- Taylor, P. C., Fraser, B. J., & Fisher, D. L. (1997). Monitoring constructivist classroom learning environments. *International Journal of Educational Research*, 27(4), 293-302.
- Taylor, P.C.S. & Campbell-Williams, M.(1993). Critical constructivism: Towards a balanced rationality in the high school mathematics classroom. Paper presented at the annual meeting of the American Educational Research Organisation, Atlanta, GA.
- Turnbull, H. R., Wilcox, B. L., & Stowe, M. J. (2002). A brief overview of special education law with focus on autism. *Journal of Autism and Developmental Disorders*, CAPS 32(5), 479-493.
- Von Glasersfeld, E. (1995). *Radical Constructivism: A Way of Knowing and Learning. Studies in Mathematics Education Series: 6.* Falmer Press, Taylor & Francis Inc., 1900 Frost Road, Suite 101, Bristol, PA 19007.
- Vygotskii, L. L. S. (1978). *Mind in society: The development of higher psychological processes.* Harvard University Press.
- Watters, J., & Ginns, I. (1994). Self-efficacy and science anxiety among preservice primary teachers: Origins and remedies. *Research in Science Education*, 24(1), 348-357.
- Whalen, C. (2009). Real Life, Real Progress for Children with Autism Spectrum Disorders: Strategies for Successful Generalization in Natural Environments. *Brookes Publishing Company.*
- Whelan, D. L. (2009). The equal opportunity disorder: Autism is on the rise, and it can affect any family: Here's what you need to know. *School Library Journal*. 55(8), 30-34.
- Wilkinson, L. A. (2010). Facilitating the identification of autism spectrum disorders in school age children. *Remedial and Special Education*. 31(5), 350-357.
- Williams, S. K.; Johnson, C. & Sukhodolsky, D. G. (2005). The role of the school psychologist in the inclusive education of school-age children with autism spectrum disorders. *Journal of School Psychology*. 43(2), 117-136.
- Yazbak, F.E. (2003). Autism in the United States: A perspective. *Journal of American Physicians and Surgeons*. 8(4).
- Yazbak, F.E. (2004). Autism seems to be increasing worldwide, if not in London. *British Medical Journal*. 328, 226-227.
- Yell, M. L., Drasgow, E. & Lowrey, K. A. (2005). No child left behind and students with autism spectrum disorders. *Focus on autism and other developmental disabilities*. 20(3), 130- 139.