Fostering Empowerment within Special Education: Building Communication in a Specialized Program

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By

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# Table of Contents

Abstract ........................................................................................................................................... 1  
Introduction .................................................................................................................................... 2  
Project Origins ................................................................................................................................. 8  
Why Empowerment Evaluation? ........................................................................................................ 11  
Methods ........................................................................................................................................... 16  
  Participant Observation .................................................................................................................... 16  
  Interviews .......................................................................................................................................... 18  
  Common Interview Themes ................................................................................................................. 26  
Empowerment Evaluation .................................................................................................................... 28  
  Step 1: Developing a Project Mission Statement ............................................................................... 29  
  Step 2: Taking Stock ........................................................................................................................... 31  
  Step: 3 Planning for the Future ........................................................................................................... 37  
Next Steps .......................................................................................................................................... 41  
The Anthropological Difference .......................................................................................................... 42  
Summary and Conclusions .................................................................................................................. 48  
References .......................................................................................................................................... 51  
Appendix A .......................................................................................................................................... 55  
Appendix B .......................................................................................................................................... 57  
Appendix C .......................................................................................................................................... 61  
Appendix D .......................................................................................................................................... 63
Abstract

The goal of this project was to conduct an empowerment evaluation with the special education staff at Canoas Elementary in order to document how the Morgan Autism Center framework had been adopted and explore potential areas of program development as described by the project participants. The focus of an empowerment evaluation is for participants to self-reflect and spark change from within. Since Canoas’s special education framework relied heavily on collaboration between teachers, instructional assistants, and specialists, an empowerment evaluation gave the staff involved an opportunity to voice their ideas regardless of their position in the program. As an instructional assistant within Canoas’s special education program I realized that the program contained elements of both the institutional structure of a public school as well as the unique framework of a private education institution (The Morgan Autism Center). The combination of public and private educational frameworks limited the staff’s ability to develop the program’s identity in terms of defining the program’s overall mission. A major underlying goal of this empowerment evaluation was to create a clear program identity that combined elements of both public and private education frameworks so that special education staff were better able to perform their jobs by taking a more unified approach to completing essential program tasks. This project also provided the San Jose Unified School District (SJUSD) with the first documentation of the program’s status served to empower participants to improve the program from within to foster communication between one another.
Introduction

Autism is one of the fastest growing disability categories in the United States. The most recent study by the Centers for Disease Control and Prevention place the rate as high as 1 in every 88 individuals. Boys are five times more likely than girls to receive an autism diagnosis (Centers for Disease Control and Prevention 2012:1). According to the National Autism Association website, “Autism is a bio-neurological developmental disability that generally appears before the age of three” that impairs the social, communication, and cognitive development of children (Autism Definitions 2012). In the United States autism is becoming more common although medical professionals have yet to fully understand and define a cause for the disease. On the website for the Council for Exceptional Children, many theories are listed regarding the cause of autism including “genetics, environmental factors such as pesticides, infections, hormone imbalance, and mercury in vaccines” (Council for Exceptional Children 2011). The diversity in how autism affects individuals calls for a wide variety of treatments consisting of biomedical applications, pharmaceuticals, and educational therapies which address behavior and communication.

In an educational setting some individuals exhibit aggressive behavior and/or self-harm that force educators and school districts to provide alternative means of education which usually takes place in a special education classroom or specialized program. According to federal mandates, all students, regardless of their disability, have the right to a free and appropriate education. School districts are responsible for providing any “related services” that benefit the child’s education (108th Congress of the United States 2004:5). If the public school district cannot provide the services needed for a disabled student to participate in a public
school setting, it is at risk of spending thousands of dollars in attorney expenses to hold a due process hearing that determines what related services must be provided (108th Congress of the United States 2004:70-72). Often the legal fees associated with due process hearings cost school districts more money than the actual cost of providing the service. For this reason many school districts, like the SJUSD, have created unique special education programs that provide numerous related services to special education students in hopes of avoiding the costs of due process hearings.

In California specifically, the percentage change in the number of autistic students dramatically increased 275% between the years of 1996 to 2002 (American Institutes for Research 2004:86). The dramatic increase in the number students with autism in California is a result of multiple factors. A national study of autism spectrum disorder (ASD) rates by the Centers for Disease Control and Prevention states that “some of the increase likely has been due to changes in the diagnosis and treatment of ASDs, some to greater awareness, and some to better record keeping, although exactly how much is due to these factors is unknown” (Centers for Disease Control and Prevention 2012:38). In California the increase in the rates of autism appear to be a result of a combination of factors including improved diagnosis and treatment techniques, more comprehensive records, and increasing numbers of autistic students. With the average special education expenditure estimates for autistic students in 2002-2003 averaging $29,735 per student per year, providing a free appropriate public education for disabled students has become a huge financial burden for the California public school systems (American Institutes for Research 2004:128).
There are numerous federal and state level laws, regulations, and policies that guide the education of students with disabilities. The Individuals with Disabilities Education Act (IDEA) is the primary federal program that authorizes state and local aid for special education and related services for children with disabilities. Although IDEA has been modified and updated to reflect changes in the educational environment, its core principles have remained constant. IDEA’s underlining goal is to guarantee “a free appropriate public education” for all children with disabilities who are between the ages of three and twenty-one (108th Congress of the United States 2004:5). IDEA states that an appropriate education must be designed around the student’s individual needs which are formally stated by the school in an individualized education plan (IEP). The IEP must describe the student’s special educational needs as well as what services will be provided to address those needs. The last major feature of IDEA is that it mandates that special education students be educated in the least restrictive environment, meaning they spend as much educational time with their non-disabled peers as possible (108th Congress of the United States 2004:31).

Like most states, California has developed and modified its education codes so that they align with and reflect the mandates found in IDEA. According to the California Department of Education website, there are 814 legal codes and regulations that are associated with the special education of students in California (California Department of Education 2012). These codes cover all of the requirements listed in IDEA plus contain state specific regulations that are not required by federal law. With both federal and state legal mandates to guide special education programs, it becomes quite apparent that school districts are under intense pressure to meet the educational needs of all of their disabled students. With an increasing population
of autistic students, the SJUSD was forced to find a way to meet these students’ educational needs as required by state and federal law.

The SJUSD established a specialized education program for autistic students at two elementary schools within the district. Canoas Elementary School is one of the sites where the SJUSD created a program that uses the Morgan Autism Center Model for educating and managing behavior of autistic students. The SJUSD adopted the Morgan Autism Center’s special education framework in order to address the growing needs of autistic students. Adopting the Morgan Autism Center Model helped the SJUSD minimize the overwhelming budget demands it was facing in terms of meeting the needs of autistic students (mostly associated with providing related services to autistic students). The framework has allowed the SJUSD to meet the needs of autistic students while avoiding the expenses related to the cost of due process hearings.

The Morgan Autism Center is a private nonprofit organization located in San Jose, California. The Morgan Autism Center provides services for children and adults who have severe neurological disorders that are also accompanied by disabilities such as epilepsy, cerebral palsy, Attention Deficit Disorder, sensory processing disorder, visual or hearing impairment and ataxia. All of the students and adults at the Morgan Autism Center have been diagnosed with autism and demonstrate significant deficits of perception, language, learning, adaptive behavior, and function below their age levels in most areas.

The educational program in place at the Morgan Autism Center was founded in 1969 and has been certified by the California Department of Education (The Morgan Autism Center 2010:10). The Morgan Autism Center School Program is a licensed nonpublic school (NPS) that serves students ages 3 to 22 years old. The school program provides individualized special
education for enrolled students who are unable to develop skills or benefit from existing public school programs. The Morgan Autism Center educational program incorporates many alternative education principles like applied behavior analysis, discrete trial, picture communication systems, visual schedules, social skills training, floor time strategies, incidental teaching, and a high staff to student ratio to educate its students (The Morgan Autism Center 2010:11). Within the Morgan Autism Center School Program students’ daily schedule includes speech therapy, a wide range of academics based on student needs, and instruction that promotes social skills. In order to better serve the growing adult population at the Morgan Autism Center, an adult program that emphasizes vocational and independent living skills was established in 1985. The adult program at the Morgan Autism Center is licensed by the California Department of Social Services (The Morgan Autism Center 2010:11).

The autism special education program at Canoas adopted many of the Morgan Autism Center’s core educational principles and practices. Similarities between the Canoas program and the Morgan Autism Center Autism School Program include a high staff to student ratio, structured fifteen minute learning sessions, employing the use of Individualized Education Programs (IEPs) to instruct students, positive reinforcement, and the availability of special services like speech therapy and occupational therapy (OT). Although the autism program at Canoas does not formally focus on vocational skills, Independent Living Skills (ILS) which contribute to the development of vocational skills, are emphasized in most IEPs.

Currently there are four classrooms at Canoas Elementary that are modeled after the Morgan Autism Center which the behavioral and academic needs of autistic students. Each
Class has eight to ten students with varying degrees of autism spectrum disorder (ASD). Within each classroom there is one credentialed special education teacher along with six to ten paraprofessionals (the formal job title is Specialized Special Education Autism Paraprofessional). The large number of educators in each classroom is a result of the Morgan Autism Center Model emphasizing one-on-one teaching and learning. Having more staff in a classroom also enables the staff to rotate students every fifteen minutes so that each educator works with almost every student in a one on one setting. Along with the high teacher to student ratio, another central feature of the Morgan Autism Center Model that is present in the Canoas classrooms is the use of positive reinforcements to dictate behavior and encourage academic progress. Positive reinforcements include anything from a simple high-five to play time with a favorite toy which is given to a student after he or she completes an assignment or engages in appropriate behavior. The role of positive reinforcement is critical to creating a safe and encouraging academic environment for both students and educators within Canoas’s special education program.

Another critical component of Canoas’ autism program is the availability of occupational therapy (OT) and speech instruction. At Canoas there are two occupational therapists who work with students in the autism program to improve hand-eye coordination, strength, and fine motor skills (like cutting a piece of paper). There is one speech pathologist at Canoas who specifically works with autistic students. The speech pathologist works with students to meet their speech and language goals as listed in their IEP. The availability of an occupational therapist and a speech pathologist are examples of the types of related services that school districts must supply in order to be in compliance with IDEA. San Jose Unified has likely
provided these services as part of the autism program at Canoas to avoid expensive due process hearings that are part of the procedural safeguards outlined in IDEA. The goals of the procedural safeguards outlined in IDEA are to ensure the rights of children with disabilities and guarantee that these children receive a fair public education (108th Congress of the United States 2004:69-85).

**Project Origins**

In the traditional academic approach to anthropological study, most graduate programs require that graduate students spend time in “the field” as participant observers or cultural documenters. As a part of an applied anthropology program, I was free to explore my interests and develop a project that ultimately allowed me to play the role of a participant observer as well as evaluation coach.

I was employed with San Jose Unified School District’s Autism program at Canoas Elementary for 21 months (almost two consecutive academic years), as an autism paraprofessional. My role in the program was to assist the classroom teacher in achieving students’ IEP goals as they related to my assigned subject area. I was one of seven paraprofessionals working in the same classroom along with one credentialed teacher and a speech pathologist.

At the start of my employment at Canoas I was also beginning my first year as a graduate student in San Jose State’s Applied Anthropology program. After my first semester as a graduate student and as an autism paraprofessional, I decided that I wanted to focus my M.A. project around Canoas’ autism program because I saw an opportunity to apply my skills as a researcher while also contributing to the maintenance of an important educational program. In
the beginning, I had no concrete idea of what kind of a project I wanted to develop but I knew I wanted to create something that contributed to the continuation of the autism program at Canoas. In a way, not having an initial specific project focus allowed me to “avoid predetermining what is observed and what is elicited from informants” (Spindler and Spindler 1997: 68-69). As I began to make the familiar strange and the strange familiar, I realized that there was a great deal of variation between the autism classrooms in terms of student behavior expectations, academic approaches, daily schedule activities, and staff management. In theory, all the classrooms should be similar in these areas because they are fashioned after the Morgan Autism Center Model.

A second driving force in determining what kind of a project I was going to develop was the fact that Canoas had just hired a new special education teacher and a new principal. The new principal had an extensive special education background from her experiences in another school district and was keenly interested in developing my project into something that would not only benefit the autism program but the whole school as well. There was also a high turnover rate for autism paraprofessionals every academic year, so there were many new hires that started without knowing much about Canoas’ autism program. The combination of two critical new hires (the principal and special education teacher) along with the high turnover rate of autism paraprofessionals likely contributed to the variation amongst the special education classrooms. The yearly pattern of new hires provided an opportunity for me to develop a project that had the potential to clearly describe the goals and features of the program so that new hires are immediately aware of the expectations.
Since the Morgan Autism Center/SJUSD autism program began in the 2004-05 school year, no in-depth publically accessible qualitative research has been done to document the status of the program or evaluate its development. As required by California State law, the SJUSD has a task force named the San Jose Unified School District Autism Task Force and an Autism Advisory Committee. As listed on the SJUSD website, the Autism Advisory Committee (AAC)’s task is “to develop recommendations to the Superintendent regarding the development of a Pre-K through Grade 12 continuum of quality services to support school success for autistic students” (San Jose Unified School District 2012). Also listed on the SJUSD website is the AAC’s purpose in reaching out to parents so that they can

- Continue development of SJUSD Autism Program towards a goal of reaching world class status
- Continue forum for district/parent communication
- Maintain cutting edge knowledge of current research and disseminate same
- Create opportunities for guest speakers to address staff and parents
- Monitor implementation of the Autism Program
(San Jose Unified School District 2012)

Although both the SJUSD Autism Task Force and AAC aim to monitor and develop SJUSD’s autism programs, neither group explained how these two aims are to be completed. Furthermore, both groups have limited data available that relates to monitoring and program development. The data that is provided on the SJUSD website are summative results from staff and parent surveys that lack any analysis (San Jose Unified School District 2010). Even though these survey results include open-ended response questions, the current surveys are not able to adequately describe how the autism programs have developed and changed over time. Specifically, since the data summarizes of all the responses that were received by the district, they do not highlight unique features of programs at specific schools like Canoas. The goal of
this discussion on the AAC’s Autism Survey is not to discredit or devalue the information gathered from the surveys, but to illustrate the need for more detailed and site specific evaluations of SJUSD’s autism programs.

Special education programs, like many other school programs, are required to meet specific district, state and national standards that guide their implementation and practice. Evaluations that are carried out to monitor the progress or implementation of special education standards and are often conducted in response to external requests or legal mandates rather than being initiated internally by school personnel to serve their unique purposes (Vallecorsa, deBettencourt and Garriss 1992). As a part of the Canoas staff, I did not fit into the traditional role of evaluator in the sense that I was not external to the program. Indeed, I had a direct stake in how the program changed after the evaluation. The autism program at Canoas had a deep emphasis on teamwork between special education teachers, paraprofessionals, and program specialists (like occupational therapists, psychologists, and speech pathologists). My direct role in the program as well as the program’s built-in emphasis on teamwork, led me to develop an empowerment evaluation project that fed into the strengths of these two characteristics.

**Why Empowerment Evaluation?**

Currently in the United States the domain of public education is under much scrutiny due to students’ poor performance on standardized tests and the country’s obsession with using these tests to assess our children’s knowledge. Many educators and school districts are facing sanctions as a result of poor test scores while also experiencing massive cuts from state funding due to various budget deficits across the country (Darling-Hammond 2010). Evaluations
are being used to determine which programs to cut and which schools are not meeting their performance goals. More often than not, these evaluations are done by an external organization or contractor not intimately linked to the school and possibly not even with the school district. As a result, evaluations can be perceived by staff and teachers as invasive, methodological, and indifferent. In fact, E. Jane Davidson suggests that if “the primary purpose of the evaluation is for accountability, it is often important to have an independent evaluation conducted (i.e., nobody on the evaluation team should have a significant vested interest in whether the results are good or bad)” (Davidson 2005: 3). I acknowledge that independent evaluations may be beneficial in terms of increasing the credibility of the evaluation, but I argue that the independent accountability driven evaluations of our public schools and their related programs are overused. Consequently, they may devalue the knowledge and skills that educators can provide in of identifying solutions for improving student performance and in finding ways to conserve funding.

It is within this context of independent evaluations and standardized test obsession that the autism special education program at Canoas Elementary operated. As an employee of the special education program at Canoas I was unable to conduct an independent evaluation because I did have a “significant vested interest in whether the results are good or bad” (Davidson 2005: 3). Regardless of my role in the program, I did not want to develop an evaluation that concluded with the program being evaluated as ‘good’ or ‘bad’ or well performing or not. I wanted the evaluation to serve as a formalized setting for the staff within the program to discuss what they wanted the program to do for the students involved. Prior to the development of the Canoas Empowerment Evaluation Project (CEEP), my experiences with
the program showed me that a high degree of informal organizational learning was taking place, meaning that the staff within the program were constantly learning from their successes and shortfalls in implementing the Morgan Autism Center Model in a public school (Davidson 2005). Consequently, I decided to generate an evaluation that was not accountability based, but instead emphasized communication and used the program’s organizational learning capability. I turned my focus to the various types of participatory evaluations that emphasized these attributes and involved the staff in the evaluation process.

I determined that an empowerment evaluation framework was the best fit for assessing Canoas’s special education program because it incorporated communication and staff participation. It also gave me an opportunity to facilitate the evaluation without hampering the credibility of the project. One of the most prominent features of the empowerment evaluation framework is the fact that it is a continuous process that participants can systematically conduct on their own so that they can incorporate it into their established routine of organizational learning. Unlike a traditional external or independent evaluation, an empowerment evaluation does not stop at the end of “the assessment of a program’s value and worth” (Fetterman 2001: 3). By definition, the main goal of an empowerment evaluation is to foster improvement and self-determination by using evaluation concepts, techniques, and findings (Fetterman 2001). Enabling participants to self-evaluate and create goals for the program reduced the intrusiveness of the evaluation and used the specialized knowledge of the program staff to develop realistic and attainable goals that will progress the program.
Another critical reason I decided on the empowerment evaluation framework was based around the discussion of the “capacity to do evaluation and the capacity to use evaluation” (Levin-Rozalis, Rosenstein and Cousins 2009: 194-199). There are thousands of evaluation guides and tools such as Michael Scriven’s Key Evaluation Checklist (KEC) that make the evaluation process more transparent, less intimidating, and provide more people with the basic skills needed to “do” evaluation (Scriven 2003). I have no doubt that many of my fellow graduate students would be able to “do” this empowerment evaluation, but I had access to internal knowledge about the special education program to make the evaluation useful for the staff to improve the program. Many of the traditional forms of independent evaluation are excellent at allowing evaluators to “do” evaluations but do not provide enough information or suggestions on how these evaluations can be used to improve programs. Empowerment evaluation is unique in that it requires participants to develop goals (based on how they rated their performance on various program activities), which have specific strategies to meet those goals. In essence, the features of an empowerment evaluation build upon each other to increase participant’s capacity to “do” the evaluation as well as “use” the evaluation.

Although empowerment evaluation is inherently different from other forms of evaluation, as a form of evaluation it still important to consider it a political act (Alexander 2006; Weiss 1973,1991,1999). Many educational evaluations are policy driven either in the form of state or national educational requirements or mandates (Stake 2007). Although the CEEP project did not directly stem from any legal or political source, the autism special education program itself is a result of numerous legal mandates and policy implementations. It would be unwise and perhaps even ignorant not to acknowledge the “interests, ideologies,
power struggles, and conflicts” that stem from the politics surrounding the CEEP project (Levin-Rozalis, Rosenstein and Cousins 2009: 192-193). Unlike other forms of evaluation, an empowerment evaluation framework seeks to reduce power inequalities among participants and create a democratic forum to share ideas and concerns in order to ease conflicts (Fetterman 2001).

The final distinction that influenced my decision in employing the empowerment evaluation framework for my project was its reliance on human agency. In the context of the CEEP project I refer to human agency as the ability of individual staff members to act independently and develop their own ideas when discussing features of the special education program they would like to strengthen. The human agency approach to evaluation seeks to acknowledge and involve less powerful stakeholders as well as to appreciate the importance of context and culture (Levin-Rozalis, Rosenstein and Cousins 2009: 195-208). It can be argued that the least powerful stakeholders in Canoas’s autism program were the paraprofessionals because they were the lowest on the pay scale and had the least amount of work related responsibilities in terms of creating IEPs, attending school wide staff meetings, and managing other staff. As a less powerful stakeholder group, the paraprofessionals appeared to have less access to social capital which may have affected their individual agency. The role of social capital and how it contributes to staff agency is discussed in more detail in the section titled “The Anthropological Difference.” A human agency approach to evaluation, such as an empowerment evaluation, involves these “less powerful stakeholders” so that the evaluation products reflect the needs and interests of all the program participants not just those with the most power. The function of a human agency evaluative approach is to “understand (verstehen)
human experiences” (Alexander 2006: 207) by focusing on the internal processes of the autism special education program to strengthen the skills of the program staff so that the program can continue to improve. The human agency approach of an empowerment evaluation emphasizes an internal holistic perspective of the autism program that seeks to involve less powerful stakeholders to ensure that the evaluation is useful.

There were many factors in my decision to employ an empowerment evaluation framework for my evaluation of Canoas’s autism special education program. At the most basic level I made my decision based on the high degree of involvement I wanted the staff to have, the beneficial impact it would have on the program, and the ability for the program staff to sustain the goals and strategies developed during the evaluation in a post evaluation setting.

METHODS

*Participant Observation*

As a way to make the familiar strange, I focused the first phase of my project on participant observation. Participant observation served two purposes: (1) it forced me to acknowledge that as part of the Canoas autism program, I needed to pay particular attention to how the staff interacted and how each classroom was managed because these interactions are a part of my daily routine (and therefore I could easily overlook their value in terms of identifying staff hierarchies, potential areas of conflict, and common themes); and (2) participant observation gave me the opportunity to visit the other special education classrooms that I didn’t typically see, which allowed me to develop a sense of rapport with those staff who had never worked with me before. I had a distinct advantage in developing rapport with other
staff due to the simple fact that I was female. Over 80% of the autism special education staff was female so it was easier for me to relate with them because I was female as well. I would have been harder to relate to if I was a male participant observer or if the special education staff was 80% male instead of female (Spindler and Spindler 1997: 66). I was fortunate in the fact that I conducted participant observation for a long period of time due to my involvement with the autism program. I was able to spend at least one hour per week day on participant observation from August 2011 to June 2012. In the true sense of “traditional” anthropological observation, I tried my best to go about my usual daily activities while conducting participant observation. In other words I put a large amount of effort in not disrupting the daily routines and interactions of the staff I was observing. I tended to discreetly write notes when appropriate. Most mornings and afternoons I participated in and observed classroom meetings where the paraprofessionals, teachers, and sometimes specialists met to discuss specific student goals, any unusual incidents from the day, and any challenges that might have arisen throughout the day or week. Since the CEEP project was focused on understanding how the special education staff could internally evaluate the program to create tangible goals to accomplish the program mission, there was no need to observe staff while they were working with children.

There is no standard for how long an anthropologist should be “out in the field” but the validity of the observations increases as the researcher spends more time in situ observing repeated phenomenon (Spindler and Spindler 1997: 66). With a minimum of 100 hours of participant observation conducted, I was able to identify potential sources of conflict that might arise during the empowerment evaluation phase of my project, recognize common themes that
were discussed in different classroom meetings, and detect existing hierarchies between staff. All of the qualitative information I collected during my participant observation guided the formation of my interview questions and developed my understanding of how the autism program operated at all levels.

As an employee of Canoas’ autism program, I was limited on how much time I could spend observing because of my employment contract requirements. As Spindler and Spindler (1997) state, “It is clear that the role of the ethnographer must vary from site to site” so that in my project, my role emphasized being a participant while also sneaking in a little observation over a long period of time (Spindler and Spindler 1997: 66). Although I described participant observation as the first phase in the CEEP project, participant observation was a continuous process that did not have a definitive ending point.

**Interviews**

The second phase of the CEEP project included confidential interviews with paraprofessionals, special education teachers and specialists. The total number of staff associated with the autism program (all paraprofessionals, teachers, and specialists) was 33 people. I was able to interview 11 paraprofessionals (at least one from the four different special education classrooms), two teachers (out of four total), and two specialists. I created my interview sample based on my knowledge of the characteristics of the staff who were involved in the autism program at Canoas. The autism program staff was very diverse in terms of age, ethnicity, sex, and years of experience with the program. In order to reflect the important characteristics of the general staff population of the autism special education program at
Canoas, I developed a quota sample that included at least one staff member from each job title associated with the program, two male staff members, one staff member from every ethnic category represented in the program, staff members with varying degrees of work experience, and a wide range of ages from 24 to 60 years old (Table 1).

Table 1: Interview Population by Ethnicity, Gender and Occupation Representation (Self-Identified)

<table>
<thead>
<tr>
<th>Ethnicity (by descent)</th>
<th>Male</th>
<th>Female</th>
<th>Occupation Represented</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American</td>
<td>0</td>
<td>1</td>
<td>Paraprofessional</td>
</tr>
<tr>
<td>Chinese</td>
<td>0</td>
<td>1</td>
<td>Paraprofessional</td>
</tr>
<tr>
<td>Hispanic</td>
<td>0</td>
<td>3</td>
<td>Paraprofessional, Teacher</td>
</tr>
<tr>
<td>Indian</td>
<td>0</td>
<td>2</td>
<td>Paraprofessional, Specialist</td>
</tr>
<tr>
<td>Mexican</td>
<td>0</td>
<td>2</td>
<td>Paraprofessional</td>
</tr>
<tr>
<td>Persian</td>
<td>0</td>
<td>1</td>
<td>Paraprofessional</td>
</tr>
<tr>
<td>Caucasian</td>
<td>2</td>
<td>3</td>
<td>Paraprofessional, Specialist, Teacher</td>
</tr>
</tbody>
</table>

Quota samples are sometimes critiqued in terms of their ability to accurately represent the total study population and their potential for distortions (Pelto and Pelto 1978).

Nevertheless, I decided a quota sample was the best sampling technique for the CEEP project because during the interview phase I was looking for general shared concerns, ideas, and themes amongst the special education staff not how these ideas differed based on the characteristics of each informant. I also wanted to ensure that I included staff from all ranks of the program and staff with various levels of program experience, ethnic backgrounds, and ages so that no one staff member felt that he or she was not represented in the project.

Representing all the staff members was crucial in the CEEP project because the empowerment evaluation phase requires participation from as many staff members as possible from all levels
of the program. If I had unintentionally isolated a segment of the autism staff population it was likely that they would not want to participate in the rest of the CEEP project because they were excluded in the interview phase. Quota sampling was used in the interview phase of CEEP to ensure that the diversity of the autism program staff was represented in the interview sample and to encourage all staff members to participate in the following the phases of the CEEP project.

I was able to interview 15 staff members from the autism special education program that reflected 45.5% of the entire staff population involved with the program. I formatted the interview questions so that they reflected James Spradley’s (1979) concept of the concurrent principle. Through his idea of the concurrent principle, Spradley argued that “it is best to alternate the various types of questions in each interview” so that my questions did not have a test like effect and reduced the possibility that the informant became bored (Spradley 1979: 120-122).

The interview population represented all three categories of staff (paraprofessional, teacher, and specialist) that worked with Canoas’ autism program and included 45.5% of the total autism staff population. Since only 18.2% of the total autism staff was male (6 out of 33), only two male paraprofessionals were interviewed representing 13.3% of the interview population. There was no opportunity to interview male staff in other categories of staff because all of the teachers and specialists were female. Two teachers, both with at least five years of experience in the program, volunteered to be interviewed representing 50% of the special education teaching category and 13.3% of the total interview population. Lastly, I
interviewed two specialists: one speech pathologist and one occupational therapist. As stated previously, both of the specialists were female and represent 50% of the specialist staff category as well as 13.3% of the total interview population (Table 2).

<table>
<thead>
<tr>
<th></th>
<th>All Staff</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Interview Population</strong></td>
<td>33</td>
<td>27</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>13</td>
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<tr>
<td><strong>Paraprofessional Interview Population</strong></td>
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<tr>
<td></td>
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<td>2</td>
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<tr>
<td><strong>Teachers Interview Population</strong></td>
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</tr>
<tr>
<td></td>
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<td>0</td>
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<tr>
<td><strong>Specialists Interview Population</strong></td>
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</tr>
<tr>
<td></td>
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</table>

Table 2: Interview Population by Job Category and Gender

The goal of recruiting a minimum of two staff members from each employment category was to reduce the risk of bias in terms of only gaining the perspective of those who have supervisory roles. A second, somewhat basic purpose for recruiting participants from multiple staff categories was to get as many people involved in the project at an early stage so that they felt more compelled to participate in the empowerment evaluation stage of the project which was founded on participants showing up to communicate and work with each other.

Out of the eleven paraprofessionals who participated in the interview portion of the project, all but one had at least one year of college coursework. Seven out of the eleven paraprofessionals interviewed had earned four year degrees and one was finishing a joint bachelor’s and credential program. The increased level of educational experience that characterized many of the paraprofessionals contributes to their own self-determination
because a college degree may show that an individual is able to navigate the social institution
of a complex educational system giving him or her a sense of entitlement when it comes to
making their own life decisions (Lareau 1987, 2003). Within the context of an empowerment
evaluation it was critical that the participants have a strong sense of self-determination so that
they are able to

- identify and express needs;
- to establish goals or expectations and a plan of action to
  achieve them;
- to identify resources;
- to make rational choices from various alternative
courses of action;
- to take appropriate steps to pursue objectives;
- to evaluate short- and long-term results, including reassessing plans and expectations and taking necessary detours;
- and to persist in the pursuit of those goals (Fetterman 2001: 13).

In short, a self-determined population was an essential requirement of an
empowerment evaluation. Without a self-determined population, a researcher does not have
the ability to coach participants through an empowerment evaluation because they are unable
to employ the interconnected skills and abilities listed by Fetterman. Within the staff
population of Canoas’ autism program, I believe that the individuals had an elevated degree of
self-determination due to their educational experiences. After observing various staff
interactions, I determined that staff members who did not hold college degrees had developed
a high degree of self-determination based on their prolonged work experience in Canoas’
autism program (the few staff that did not hold degrees have been with the program for two or
more years).

The paraprofessionals who participated in the CEEP project were diverse representing at
least seven cultural, ethnic, or national backgrounds including African-American, Chinese,
Hispanic, Indian, Mexican, Persian, and Caucasian (categories were self-identified by interview
participants). Many of the paraprofessionals were also first generation immigrants which
contributes to how the paraprofessionals interact with each other and which sometimes led to occasional misunderstandings between two staff members from different cultural, ethnic, or national backgrounds. During one observation session, I observed that one Vietnamese-American paraprofessional (who did not participate in the interview portion) was very direct in making suggestions to another African-American paraprofessional who perceived the encounter as a personal attack on her teaching abilities (the tone of her voice and verbal response to the other paraprofessional suggested that she was defensive). There was tension during the encounter and when the African American paraprofessional realized the other person was just trying to help her she was able to take the advice and move on. In the observed occupational hierarchy, paraprofessionals appeared to occupy the lowest level due to the fact they were not responsible for developing IEPs, typically had less college experience than the teachers and specialists, and had no requirement to supervise other staff.

There were a total of four special education teachers within Canoas’ autism program. All four were female. Three out of the four teachers considered themselves Caucasian while the fourth identified herself as Hispanic. All four teachers were in varying stages of clearing their teaching credentials through the state of California’s Beginning Teacher Support and Assessment (BTSA) program. Both of the special education teachers who took part in the interview process had previous career paths or goals that did not involve teaching. Both teachers were originally hired as paraprofessionals for the autism program (at a different school site within SJUSD) and decided to change career paths so they could teach in SJUSD’s autism program.
The teachers’ role in the autism program at Canoas varies from the role of paraprofessionals because teachers managed the staff that were working in their classes and were responsible for writing goals and attending IEP meetings. They are also responsible for educating the students in the class. In one interview, a teacher described her job in two parts: “From 8:30 to 2:30 we (paraprofessionals and teachers) have the same job but from 2:30 on my second job is writing IEPs and doing paperwork.” The IEP is a legal document that outlines the agreement between the parents or legal guardians of special education students and the school district in terms of the services and type of education the student will receive. Writing and developing an IEP was a critical and often stressful requirement of special education teachers. Although the principal is the official site manager, the special education teachers were often required to play the role of classroom supervisors to ensure that everyone, especially the paraprofessionals, were following the expectations and completing the requirements of their jobs. Given that special education teachers at Canoas had more responsibilities, had spent more time in university settings earning their credentials, and were expected to manage all of the staff in their classrooms, it was apparent that their job title was higher on the occupational hierarchy than the paraprofessionals. The occupational hierarchical difference between paraprofessionals and teachers might have played a role in how these two categories of staff interacted and communicated with one another.

The specialists who were associated with the autism program were all female and had very specific roles in the program. There was one psychologist who provided psychological services that can be required as part of the related services of a student’s IEP. The psychologist also played an important role in evaluating students during the IEP development process.
was one speech pathologist that worked with the students in the autism program and focused specifically on the speech and language goals outlined in the IEP. The final category of specialist included the occupational therapists. There were two occupational therapists that were a part of the services provided in the autism program at Canoas. The occupational therapists worked with students on fine motor activities, writing, and agility/body awareness. For the interview portion of the project, I interviewed one speech pathologist and one occupational therapist. Both of the specialists interviewed had four to five years of experience with the autism program. Similar to the paraprofessionals, the specialists were both culturally and ethnically diverse in comparison to the teaching staff. One specialist identified herself as Indian and another as Chinese. The remaining two specialists identified themselves as Caucasian. I included descriptions of the different ethnicities represented in each category of the autism staff in order to highlight the diversity amongst the staff and to identify a potential source of misunderstanding that might have arisen during the empowerment evaluation phase of the CEEP project.

Like the teaching staff within the autism program, the specialists were major contributors to the development of an IEP. All of the specialists who were interviewed had an advanced degree and/or special license that qualified them to work within their specialty field in the state of California. The increased responsibility related to contributing data and goals to an IEP in combination with the advanced degree and/or license placed the specialist on the same hierarchical level of the teachers within the autism program.
Common Interview Themes

The interviews provided a vast amount of data regarding the characteristics of the autism staff as well as their roles in the program. I identified five common themes throughout all the interviews that helped me prepare for the empowerment evaluation phase of the project. All fifteen of my informants mentioned at least one of five common themes I identified after I finished conducting all the preliminary interviews. The five themes include: (1) the need for more consistency; (2) the need for more cooperation and/or collaboration; (3) the need for more training; (4) the need for salary increases; and (5) the need for more communication.

The most referenced common theme in the interviews was the need for more consistency among the different classrooms in the program. One informant specifically referred to the need to increase the consistency in the language that the staff uses with children to ensure that it follows the positive framework specified by the Morgan Autism Center Model. There was also one specific reference each for demanding more consistency in how data is collected and how to manage student behaviors. The majority (three out of six total references) of the consistency themed references were related to improving the consistency in how the Morgan Autism Center Model is implemented in each classroom and how it should be more uniform across all the classrooms.

Training was the second most mentioned common theme in the interviews. Specifically, three informants mentioned the need for more training at all levels in the program (including teachers, paraprofessionals, and specialists). The remaining two informants explicitly stated that it was the paraprofessionals that needed more training in managing student behaviors and
developing lesson plans. One informant stated that at the start of the autism program at Canoas paraprofessionals were required to receive training before they entered the classroom but now paraprofessionals begin their jobs in the classroom without any training and receive hardly any formalized training once they start. During the empowerment evaluation phase of the project, the lack of training became an important point of discussion in terms of how the program can improve.

The cooperation, communication and increased salary themes were mentioned in four of the interviews. Two informants stated the need for more cooperation and communication to create positive environments in the classrooms. Cooperation and collaboration were mentioned once in reference to the district level special education officials who have a theoretical understanding of how the autism program at Canoas is supposed to work yet have a very limited idea of how it actually is applied. The final mention of cooperation and communication was in the context of how difficult it is to cooperate and communicate with so many specialists.

Increasing the salary of staff within the autism program at Canoas was mentioned four times in the interviews. Increasing salaries was mentioned twice as a possible solution to decreasing the high turnover rates of the paraprofessionals. Also, increasing the salaries of paraprofessionals was mentioned as one way to attract more highly qualified staff members. Interestingly, one informant who stated that increasing the salaries of paraprofessionals might recruit more qualified staff members argued that recruiting qualified staff should have a bigger emphasis on finding people with the right personality and work ethic. Although recruiting
higher quality staff members was only discussed by one participant, it is an important point because the SJUSD now requires all of the paraprofessional job applicants to have a minimum of 2 years of college coursework.

Finally, communication was discussed twice in the interviews. One interviewee stated the need for more communication in order to discuss student tendencies to inform new staff about how to manage student behavior and create teaching strategies that encourage student learning. In a different interview, the need for more communication amongst staff was discussed as a way to address staff conflicts and inconsistencies in how the Morgan Autism Center Model was applied.

The five common themes that I identified in the interview data from the interviews allowed me to better understand the important issues that the program was facing from the staff’s (emic) perspective. Out of the five common themes I identified in the interview data, four (consistency, collaboration, training, and communication) became major points of discussion and goals of the program during the empowerment evaluation phase of the CEEP project. Along with providing data to prepare me for the next phases of the CEEP project, the interviews also allowed me to develop rapport with staff members unfamiliar to me at the beginning of the project.

**Empowerment Evaluation**

The third phase of the CEEP project was the actual empowerment evaluation. The empowerment evaluation was held on four consecutive mornings before the students arrived on campus. The main reason for holding the empowerment evaluation before school hours was
largely due to the fact that my project was voluntary, so I had to separate the empowerment evaluation time from the requirements of the staff’s working hours. Canoas’s principal and I agreed that the best way to maintain the voluntary aspect of my project was to hold the interviews and empowerment evaluation outside of the autism program staff’s working hours. The staff attendance over the four days was somewhat consistent ranging from 12 to 18 participants each day. The majority of staff members who regularly attended each step of the empowerment evaluation were those who took part in the initial interviews.

The empowerment evaluation followed the three basic steps that Fetterman (2001: 23-42) outlined: (1) Define a Mission; (2) Taking Stock; and (3) Planning for the Future. In an educational setting, it was very important for the empowerment evaluation to leave an audit trail so that future empowerment or external evaluations could access previous goals and strategies for meeting those goals to further develop the program. Fetterman also states that “documentation must be credible and rigorous if it is to withstand the criticism that this evaluation is self-serving” (Fetterman 2001: 34). Due to the importance of an audit trail in this project’s setting and the need for credible and rigorous documentation I, in the role of an evaluation coach, emphasized that staff keep in mind that they needed to create ways to document progress toward their goals.

**Step: 1 Developing a Program Mission Statement**

As previously mentioned, the first step in the empowerment evaluation phase of the project was to define the autism program’s mission. This first step in the empowerment evaluation generated the most discussion amongst the staff members who participated in this
phase. There was already a mission statement for Canoas Elementary as well as a mission statement for the Morgan Autism Center on which the Canoas autism program is modeled after. Although these two prior mission statements covered similar topics and values, neither could completely describe the goals and values of the autism program at Canoas. Since the values and goals of the autism program, as described by participating staff, seemed to fall in-between the main features of the Canoas Mission and the Morgan Autism Center Mission, it was not surprising that the finalized autism program mission statement reflected elements of both previous mission statements.

As I was listing different values and ideas that were being generated to include in the mission statement (the critical activities crucial to the program’s function), one of the staff members started to take issue with one of the key phrases that was generated. The key phrase was “function in society”. The staff member pointed out that she believed one of the main differences between the Morgan Autism Center program and the Canoas autism program was that “we [Canoas’ program] are education focused, not life skills focused” so that preparing students to “function in society” was not one of the program goals. This kind of discussion between staff members was critical to developing a mission statement that all staff members could agree upon and feel like it represented the values of the entire group. A second
important consequence of generating key phrases in a “democratic open forum” was that it reduced or eliminated the effects of any existing power hierarchies or inequalities (such as those that existed between the job titles of paraprofessionals, teachers, and specialists).

After discussing the generated key phrases one of the teachers volunteered to condense the key phrases into one or two coherent paragraphs. She was able to condense most of the key phrases into one paragraph but a paraprofessional came up to the poster sheet and helped her finish. The final mission statement as developed by the participating autism staff read:

Our mission is to foster independence and self-esteem in children on the autism spectrum through learning in a positive environment, maximizing their potential and participation in the general school population.

The mission statement was revised several times before the final mission statement listed above was agreed upon by all the staff present at the time of the mission development part of the empowerment evaluation. Not every staff member present completely agreed with all the aspects of the mission statement but all were “willing to live with it” in order maintain group consensus (Fetterman 2001: 24).

**Step: 2 Taking Stock**

After developing and agreeing upon the autism program’s mission statement, I led the group of staff to the second step of the empowerment evaluation: taking stock. The taking stock phase can be broken down into two processes: (1) identifying and prioritizing activities crucial to the program’s functioning and (2) rating the prioritized activities based on how well the program is doing on those activities.
During the first process of taking stock, fourteen staff members took part in listing the crucial activities to the autism program’s functioning. The group listed 11 activities it thought were important. After organizing the 11 activities into a grid on a poster sheet, I asked the participants to prioritize the activities by voting with dots. Each participant received five sticker dots which he or she placed on the poster sheet grid of program activities according to which activities the participant wanted to focus on. Voting with sticker dots avoided time consuming arguments about why one activity was valued more than another (Fetterman 2001: 25). Although typical empowerment evaluations use the sticker dot voting as a tool to identify the top ten activities, in the Canoas empowerment evaluation I used the sticker dot voting to identify and focus on the top three activities. I did this for two reasons: (1) the group only generated 11 total activities to start with so focusing on the top 10 would not eliminate the non-prioritized activities and (2) with only 14 participants there was a strong chance that many activities would receive the same amount of dots leading to a priority tie. By only focusing on the top three voted activities, I was hoping to reduce the effects of numerous activities being tied in rank. Despite my efforts to reduce effects of activities being tied in priority, the group’s dot votes placed collaboration and consistency in a tie for first priority with 11 dot votes each. Training and collaboration were also voted into a tie for second priority with eight dot votes
each. Finally, behavior management, individualized instruction, and teacher to student ratio were voted into a three way tie as the third priority with six dots each.

The group was able to list crucial features to the program’s functioning as well as use the sticker dots to prioritize the top three (really the top seven due to voting ties), in one before school meeting. Despite the speed in which these two activities were completed, the process did not seem rushed and even fostered some discussion on how the activities related to the mission statement.

The second process of taking stock required participants to “rate how well they are doing concerning each activity on a 1 to 10 scale, with 10 as the highest level and 1 as the lowest” (Fetterman 2001: 25). I began the ranking process by giving each of the participants an index card and a pen to privately rate each of the seven activities. As participants were ranking the activities on their index cards, I created a grid on the poster paper which listed the top seven prioritized activities in designated rows with columns for each participant to write their initials and cast their ratings for each activity. After each participant completed his/her individual rankings on their index cards I asked him/her to come up to the poster sheet to transfer his/her ratings from the index card to the poster sheet. The participants placed their initials above their ratings so we could discuss why they rated each activity the way they did.
After each participant came up to the poster sheet and cast their ratings, we discussed some of the reasons why some staff gave certain activities very high ratings (like 10s), and why other activities seemed to be rated really low. The highest average rating was the activity listed as teacher to student ratio which was rated at 8.6.

I began to ask why some staff gave this activity a rating of 10 which sparked a discussion of how much control the staff in the program really had in modifying this activity. Since the San Jose Unified School District (SJUSD) was in charge of deciding the number of staff placed in a classroom due to budgetary concerns and what District officials perceived to be the right amount of staff per classroom, the autism program staff really could not adapt or had any control over changing the teacher to student ratio of the program. At the end of the discussion it seemed that most of the staff agreed that they had limited control over the issue of staffing the program but still felt that the program as a whole was doing pretty well regarding this activity.

The activity with the lowest rating was training. Staff participants, especially those who have been with the autism program for several years, pointed out that the amounts of training paraprofessionals receive before being hired and during their career in the program have decreased significantly since the initial implementation of the program. One of the participating staff members pointed out that decreased training was mainly the result of budget cuts to the public education systems and that the SJUSD couldn’t afford to have a consultant from the
Morgan Autism Center consistently come and train all the paraprofessionals. In order to keep the discussion positive and focused on the topic of training staff, I asked the staff who rated training as a 7 or 8 to explain their ranking. The common thread between all five of their rating explanations was that other paraprofessionals or teachers were able to help new paraprofessionals and each other develop teaching skills and behavior management ideas that were once provided by the training. The situated learning (Lave and Wenger 1991) where paraprofessionals and teachers learned and trained each other developed in response to the lack of formalized training. The lack of formalized training that developed into a situated learning experience was positive for the program because it likely increased the communication and collaboration of the staff. Even with a low rating, like the case with training, I had to probe the staff to find something positive regarding training because “An important part of empowerment evaluation involves building on strengths; even in weak areas, there is typically something positive that can be used to strengthen that activity or other activities” (Fetterman 2001: 29). By focusing on the positive component of training the participating staff was able to realize that they could use the skills and knowledge of other staff to improve their own professional abilities without having to rely on formalized training from the Morgan Autism Center.

Individualized instruction had the second highest activity rating with an average rating of 8.4. The third highest activity rating was communication with an average activity rating of 7. The communication activity was largely focused on how staff communicated with students by using picture icons to give the students a clear understanding of the task demands. Similar to
the ratings of individualized instruction, the communication rankings remained consistent from individual to individual.

Collaboration and behavior management both achieved an average rating of 6.8. The collaboration activity was loosely defined as how all staff within the autism program collaborated with each other in terms of sharing teaching strategies, materials, and specific ideas related to working with specific students. There was some discussion on whether collaboration was limited to staff within one classroom or if it meant collaborating with staff in the other autism classrooms as well. There was a consensus reached that defined collaboration as being between all staff in all the classrooms since the structure of the program moves students through classrooms based on their grade, age, and appropriate placement. Another factor in determining how collaboration was rated was the fact that paraprofessionals rotate classrooms each year so that they have experience with all age groups and all of the teachers.

Finally, consistency had an average rating of 6.5. With the second lowest rating, consistency generated discussion on how it was defined and why it was rated low. For the majority of staff, consistency referred to variation between the autism classrooms in how each room implemented the Morgan Autism Center Model. In some classrooms it seemed that the staff emphasized managing behavior over the academic goals of students. In other classrooms the primary focus was on academic goals rather than the social or behavior management goals for each student. One staff pointed out that the classroom emphasis on behavior management or academics was somewhat related to the students’ age. In the kindergarten and first grade classes a great emphasis was placed on completing tasks like getting students to follow
schedules, sit in their chairs, and line up. At the same time, another staff member pointed out that not all of the kindergarten and first grade classes placed as much emphasis on these types of tasks. The positive aspects of the consistency rating were that the basic core elements of the Morgan Autism Center Model (positive communication with students, following a fifteen minute rotational schedule, and using reinforcement to promote positive behavior), were all applied consistently in all four of the classrooms. The group conceded that there was much variation between classrooms despite the fact they are all part of one model and that this was an area that needed improvement.

After discussing the ratings of each of activity, Fetterman calls for a subcommittee to be formed to further discuss the ratings and develop a brief description or explanation of what the ratings meant (Fetterman 2001: 29-30). Since the group that conducted the ratings was small, (12 staff members), it was able to discuss what staff members “meant by their ratings, to recalibrate and revise their ratings based on what they learn, thus minimizing miscommunications, such as defining terms differently and using radically different rating systems” (Fetterman 2001: 30). Much of the activity definition was already done in the discussion of how each activity was rated, so much of the discussion at this point was centered on giving the individuals who had yet to explain all of their ratings the opportunity to do so. Although they were given the opportunity to revise their ratings, no one did.

*Step: 3 Planning for the Future*

In the beginning stages of planning for the future, participants are asked to set specific goals each activity. Since the empowerment evaluation took place midway through the school
year, the program staff agreed to focus on setting specific goals for the activities that were
given an average rating of 7 or less. These activities were: (1) training; (2) consistency; (3)
behavior management; and (4) collaboration. By focusing on these four activities, the autism
staff was able to create specific goals that will impact the program without feeling
overburdened or overwhelmed. One of the key roles I played during the goal creation portion
of planning for the future was ensuring that the goals were realistic and took staff motivation,
resources, and the current program dynamics into account. The goals that were developed are
centered on everyday activities so that they can guide
the staff’s actions toward achieving the goal. Each set
of goals was presented by one or more participating
staff members. The goals were discussed by the
group in order to make them cohesive and applicable
to the particular aim of the activity. After the goal
was agreed upon by the staff, I began the discussion
of what strategies could be useful in progressing
toward achieving the goal. I began the discussion by
asking the staff participants to name the strategies they use now to support the activity and
what strategies they would like to modify. My first or second question would turn into a
brainstorming discussion on what strategies the staff can use to accomplish each goal.

After the strategy (often more than one for each goal) was developed and agreed upon
by staff participants, we moved on to develop sources of evidence we could use to assess our
progress towards each goal. The evidence needed to be relevant to the goals as well as rigorous
and credible. In terms of the Canoas empowerment evaluation, our evidence relied heavily on taking notes and other tangible effects like tally sheets and formal data instruments from behavior support plans. Having forms of ‘hard evidence’ like tally sheets and notes made it easier to track progress. Paperwork that documents progress also provides the program with an opportunity to show outside evaluators or organizations clear evidence on where the program stands.

The first goal developed by the staff participants was to increase the amount of training the staff received while not relying on the limited formalized training provided by the Morgan Autism Center consultant. Two strategies were developed to accomplish the training goal. The first training strategy was to have at least one teacher led classroom staff meeting per week dedicated to discussing training topics like teaching techniques, behavior management, and model implementation. The second training strategy dedicated one afternoon paraprofessional led classroom staff meeting to share ideas regarding the same training topics previously listed. By having one teacher led meeting per week regarding training and one paraprofessional led meeting per week gave all the staff in the classroom an opportunity to ask questions and share techniques regardless of job title. The participating staff suggested that the paraprofessional led meetings should take place on Tuesday afternoons because the teachers were required to be at a school wide teachers’ meeting. Without the teachers present in the classroom the paraprofessionals may feel more comfortable sharing more of their training ideas and strategies since they are all classified under the same job title.
The evidence for monitoring progress towards providing staff with more training included taking notes in both the teacher led and paraprofessional led meetings in order to describe the training topics that were discussed. The notes should also describe the usefulness of the training meeting. The notes for each meeting will be documented in a spiral notebook and each classroom will have its own notebook.

The second goal developed by the staff participants was to increase the consistency of how the program model was implemented at both the classroom and program levels. In terms of the classroom consistency, classroom staff meetings will be held to discuss some of the program’s essential features that require consistency (like behavior management) where one staff member will take notes to serve as the evidence for documenting progress towards a more consistent classroom. At the program level, the strategies for increasing consistency included focusing on activities that every classroom can do, like having students line up before leaving a room, so that the program as a whole is more consistent regardless of classroom. In order to keep track of program strategies, staff members will use tally sheets to document progress towards a higher degree of consistency.

The third program activity that received a rating of less than seven was behavior management. The staff’s goal for behavior management was to ensure that all the staff within a classroom know which student(s) have behavior support plans, what to do when that student is escalated, how firm to be with task demands, and how to follow through with what is stated in the behavior support plan. The strategy that was developed to accomplish the staff’s behavior management goal was to give each classroom staff member a copy of the behavior support
plan to keep in their station so that it is at hand if they find themselves with an escalated student. The ABC (antecedent, behavior, and consequence) data that is required for the behavior support plan will serve as the documentation of progress towards the behavior management goal.

Lastly, the participating staff created a goal for increasing the collaboration between staff in all of the special education autism classrooms. The goal of increasing collaboration between the staff in each classroom relied on two strategies: (1) classroom staff meetings and (2) subject and age group based staff meetings between classrooms. Similar to some of the previous goals, these collaborative meetings will use note taking to describe the approaches that were covered in each meeting so that the notes will serve to document progress.

Although not all the staff members participated in the empowerment evaluation phase of the CEEP project, those who chose to participate were able to develop program goals and strategies to reach those goals. One way to improve future empowerment evaluations is to perhaps incorporate this phase into a mandatory staff development day for all the autism special education staff. If all of the autism staff attended, the goals might be more diverse and the strategies more specific to encourage the development of the autism program at Canoas.

Next Steps

The final piece of the CEEP project is follow-up interviews which I hope will reflect confidence in the staff’s willingness and ability to implement the strategies we have discussed in order to accomplish their goals as a program. I am interviewing staff who participated in the various stages of the empowerment evaluation regardless of their role in the first round of
interviews. By including staff who were not interviewed before the empowerment evaluation, I hope to get a better understanding of how staff perceived the evaluation in terms of usefulness and if the program will benefit from it. These interviews are currently taking place and will not be included in this project report. The knowledge gathered from the project follow up interviews will be included in the report that I am providing to the staff at Canoas Elementary as well as the San Jose Unified School District.

The Anthropological Difference

Anthropology is a broad discipline that is commonly known for its qualitative research approaches such as ethnography, participant observation, and interviews. Anthropologists can play a valuable role in education evaluations by applying traditional anthropological approaches to study common everyday routines of educational systems (Burns 1975; Everhart 1975; Fetterman 1980, 1982; Wolcott 1975). The anthropological perspective played an important role in the design and implementation of the Canoas Empowerment Evaluation Project.

One of the unique features of the CEEP project was that it placed heavy emphasis on the value of the emic or insider’s perspective. I interviewed participants from all levels in the program and I conducted participant observation to get an understanding of the program from an emic perspective. The ability to understand experiences from the first person point of view of an emic perspective, phenomenology, is a distinctive feature of the anthropological approach. The information I collected from the participant observations and the interviews helped guide how I prepared for and conducted the empowerment evaluation. The emic perspective was an important feature of the CEEP project because the process of the
empowerment evaluation relied on the ability of program members to share their insider knowledge about how they wanted the program to work and what they thought was the best way to achieve their goals. The ability to understand the emic perspective also comes from my capacity as an anthropologist to be non-judgmental. Unlike other disciplines, the anthropological perspective attempts to understand the emic perspective, not judge or devalue it. The role I played as the empowerment evaluation facilitator required that I be non-judgmental so that the participants could themselves develop salient and appropriate goals for the special education program. It also allowed participants to develop strategies that enable them to achieve those goals. The three phases (participant observation, interviews and the empowerment evaluation) of the CEEP project have also created a holistic perspective of the autism special education program. By not focusing on one specific feature or category of staff within the program, I was able to create and implement an evaluation project that incorporated all levels and types of knowledge to help participants create goals and a mission statement that are applied holistically rather than partially. A holistic approach to the CEEP project also helped me create a sense of unity amongst the staff so that they were able to comfortably share their ideas and concerns. Although the CEEP project described the autism special education program from a holistic perspective, the project results must be described within the context of Canoas Elementary. Since the autism special education program has a unique model framework as well as a high degree of staff turnover rates, the data from the CEEP project must remain in its ‘natural environment’ to provide an accurate representation of the program. The ability to describe and study specific human interactions and environments while acknowledging the
importance for the data gathered to remain in its original context is another important anthropological contribution to the CEEP project.

An important feature of the original context of the CEEP project was the presence of a hierarchy that placed paraprofessionals in the category of less powerful stakeholders. I observed that the paraprofessionals were less powerful stakeholders because they received the least amount of salary and had very limited job responsibilities outside of educating students. As a result of their lower standing in the program hierarchy, the paraprofessionals did not have a high degree of individual agency in comparison to the teachers and specialists. I argue that the limited degree of individual agency amongst the paraprofessionals is due to limited access to social capital.

Pierre Bourdieu defines social capital as “the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition” (Bourdieu 1986:241). This definition of social capital was employed by Bourdieu to address how inequalities are socially reproduced. Bourdieu emphasizes that social capital is a feature of groups which are tied to and limited by institutions. Bourdieu’s work highlights the role of inequality in determining the availability of social capital to an individual or group. At Canoas, the teachers and specialists had access to a broad network of relationships that included district officials, special education experts and consultants from the Morgan Autism Center. The network of individual relationships that the teachers and specialists had access to are important forms of social capital that contribute to their high degree of individual agency.
In contrast, the paraprofessionals did not have equal access to the social networks of the teachers and specialists. If a paraprofessional wanted to contact someone who is outside the social network of the autism program at Canoas they would likely have to ask a teacher or specialist how to do so. Paraprofessionals often used a teacher or a specialist as a contact point for a social network which reinforces the idea that paraprofessionals were less powerful stakeholders since they could not access social capital resources independently. The reliance on teachers and specialists as mediators to sources of social capital decreases the number of opportunities paraprofessionals had to act on their own. The lower level of individual agency as a result of unequal access to social capital reinforced the inequalities amongst staff members in the Canoas autism program.

Throughout the CEEP project the community of staff also used social capital to “facilitate coordination and cooperation for mutual benefit” (Putnam 1995:67). Often the paraprofessionals used their relationships with fellow paraprofessionals to help me recruit interview participants and spread interest in the CEEP project. The teachers and specialists used their social networks to connect me with district officials during the initial approval process of my project. All categories of staff used their social networks to communicate with each other to pass on new teaching strategies, behavior management ideas, and employment news to stay informed. One of Robert Putnam’s significant arguments states that a community with strong and abundant social capital resources will be better off than a community lacking in social capital:

For a variety of reasons, life is easier in a community blessed with a substantial stock of social capital. In the first place, networks of civic engagement foster sturdy norms of
generalized reciprocity and encourage the emergence of social trust. Such networks facilitate coordination and communication, amplify reputations, and thus allow dilemmas of collective action to be resolved. When economic and political negotiation is embedded in dense networks of social interaction, incentives for opportunism are reduced. At the same time, networks of civic engagement embody pass success at collaboration, which can serve as a cultural template for future collaboration. Finally, dense networks of interaction probably broaden the participants’ sense of self, developing the ‘I’ into the ‘we’, or (in the language of rational-choice theorists) enhancing the participants’ ‘taste’ for collective benefits (Putnam 1995:67).

Since the autism special education program at Canoas had a heavy emphasis on teamwork, viewing the autism staff as a community is beneficial in terms of explaining how they used social capital to benefit themselves and the program as a whole. By implementing an empowerment evaluation framework to discuss ways to progress the autism special education program at Canoas I was able to use existing community levels of social capital to encourage more collaboration, communication, and collective benefit.

As an anthropologist I was able to use my unique perspective to develop and apply an evaluation project that emphasized the core elements of the anthropological perspective: phenomenology, holism, contextualization and the ability to remain nonjudgmental. All of these core features of the anthropological perspective can be found in any truly anthropological research but they are critically important in the context of an evaluation project. The core features of an anthropological perspective are invaluable in evaluations because evaluations make the logical step from understanding to assessing what is understood (Fetterman 1984:13). The important jump from understanding to assessing what is understood places those being evaluated in a state of vulnerability because the evaluator is now placing value on features of the program which could directly and possibly negatively impact the lives of program participants. The core elements of the anthropological perspective limit the possibility of
inaccurately portraying program features and procedures as well as emphasize the importance of the evaluation findings to remain contextualized and nonjudgmental.

As an anthropologist I was also able to see that the paraprofessionals had limited levels of individual agency as a result of limited access to social capital. I identified that social capital affected individual agency and contributed to the staff’s ability to use forms of social capital to benefit the autism program as a whole. Understanding the role and contribution of social capital within the autism special education program allowed me to develop an empowerment evaluation project that encouraged individual agency and used existing community levels of social capital to encourage more collaboration, communication, and collective benefit. Without my anthropological perspective, I would not have been able to accurately describe the autism special education program nor would I have been able to effectively use the empowerment evaluation approach to positively impact the future of Canoas’s autism special education program.

The role of anthropology in academic research on autism is expanding and making profound contributions to the empirical understanding of the disorder. Critical components to what many of us view as uniquely human characteristics are the abilities to experience empathy and personally interpret the world around us. Autism is a disorder that seemingly acts as a counterexample to our core beliefs regarding our uniquely human characteristics. As a result much of the current ethnographically based social science research is focused on describing autism as

“a personal, family, and community/social group experience as evidenced through the analyses of social interactions, narrative accounts, and participation and engagement in

The CEEP project may not be considered a traditionally academic approach to developing an empirical understanding of autism, yet it contributes to the growing ethnographic research on autism in understanding how the disorder has impacted educational settings. The fundamental feature of both the CEEP project and other anthropological research on autism is their diligence on describing the emic perspective of autism. It is the emic perspective that makes any research project truly anthropological.

Summary and Conclusions

The Canoas Elementary Empowerment Evaluation Project (CEEP) was constructed around three phases: (1) participant observation; (2) autism staff interviews; and (3) empowerment evaluation. The first phase of participant observation served to build rapport with staff and to reorient my perspective as a participant in the program from familiar to strange. Reorienting my perspective forced me to not overlook the everyday rituals and routines of the program staff. In the second phase of the CEEP project the staff interviews provided me with an opportunity to make connections with staff from all levels of the program in order to increase the number of participants in the CEEP project. The staff interviews also served to reaffirm that the empowerment evaluation technique was an appropriate framework to construct my project around and provided me with information that was useful in the empowerment evaluation phase of the project. The third and final phase of the CEEP project
was the empowerment evaluation which took place over the span of four days. The empowerment evaluation was the culmination of the project and gave the staff an opportunity to define their program. In this phase the staff participants created goals and strategies to improve upon and maintain the program activities so that it remains an important feature of Canoas Elementary. Over the coming months, I will be completing the entire CEEP project by conducting follow up interviews with staff participants to see how they are doing with implementing the strategies and documenting progress ideas we outlined in the empowerment evaluation phase of the project. Although the information gathered from the follow up interviews will not be included in this project report, the final summary of the CEEP project that will be presented to the Canoas staff and the San Jose Unified School District will include data from the follow up interviews. My hope is that the follow up interview data will encourage the autism program staff to maintain and implement new goals and strategies.

Since the empowerment evaluation phase of the program was completed in December 2011, the autism program at Canoas has experienced some important changes that may or may not affect how the goals and strategies are maintained by the staff. The first and perhaps most profound change that has occurred is that one of the special education teachers resigned. Since the CEEP project was voluntary, the new special education teacher is not required to be supportive of the staff’s program goals and might also feel left out due to the fact that he or she did not have the opportunity to participate in the CEEP project. Some of the staff have also changed classrooms which has impacted the staff’s interaction with one another. I anticipate that some of these changes will be discussed in the follow up interviews. Within any education setting change is inevitable and if the changes to Canoas’s special education staff prove to be
too much for the staff to maintain the goals and strategies developed in this empowerment evaluation. I hope that the practicality, utility, and relevance of the empowerment evaluation techniques will persuade the staff to initiate another evaluation once the program is fully staffed and acclimated.

I also encourage school officials and principals across San Jose Unified School District to consider the practicality and benefits of an empowerment evaluation within and outside the special education framework. With the numerous mandates for program and curriculum evaluations, understanding the methods of an empowerment evaluation can provide principals and other school administrators with a cost efficient and less invasive form of substantive evaluation that identifies areas in need of adjustment or improvement as well as strategies to accomplish these adjustments and improvements. The internal focus of an empowerment evaluation also gives educators the opportunity to voice their opinions and concerns in a democratic setting so that they can actively participate in the evaluation process without fear of being rebuked. By bringing teachers, principals, and school administrators together to internally discuss curriculums and programs in the context of an empowerment evaluation, schools can also effectively prepare for large scale high stakes external evaluations as well. The applicability and practicality of the methods of an empowerment evaluation ensures that it will remain an important evaluation approach and a distinctive alternative to traditional external evaluations.


Appendix A

Glossary of Terms
Glossary of Terms

**IEP:** Individualized Education Plan

**SJUSD:** San Jose Unified School District

**CEEP:** Canoas Empowerment Evaluation Project

**IDEA:** The Individuals with Disabilities Education Act reauthorized by the 108th Congress of the United States in 2004

**AAC:** Autism Advisory Committee (created by the San Jose Unified School District)

**Related Services:** The developmental, corrective, and other support services required to assist a child with a disability to ensure they benefit from special education programs

**OT:** Occupational Therapy

**ILS:** Independent Living Skills

**BTSA:** Beginning Teacher Support and Assessment program provided by the California Department of Education and the Commission on Teacher Credentialing

**ABC Data:** Type of behavior data recording method that includes the antecedent that sparked the behavior, a description of the behaviors displayed, and a consequence or response to address the behavior

**ASD(s):** Autism Spectrum Disorder(s)

**NPS:** Non-public school

**KEC:** The Key Evaluation Checklist developed by Michael Scriven in 2003
Appendix B

Comprehensive Summary of the Canoas Empowerment Evaluation Project (CEEP)
Submitted to Participating Staff for Future Reference on December 16th, 2011
Canoas Empowerment Evaluation Project: The Nuts and Bolts

Mission Statement

Our Mission is to foster independence and self-esteem in children on the autism spectrum through learning in a positive environment; maximizing their potential and participation in the general school population.

List of all the critical program components that allow us to strive to accomplish our mission (no order):

- Communication with students
- Data
- Teacher/student ratio
- Schedule
- Collaboration (staff)
- Meetings (strategies)
- Positive
- Behavior management
- Visual aides
- Training
- Individualized instruction
- Consistency

After dot-voting we prioritized the top 7 activities (in order from highest to lowest)

1. Communication and consistency (tie with 11 dot votes)
2. Training and collaboration (tie with 8 dot votes)
3. Behavior management, individualized instruction and teacher/student ratio (3 way tie with 6 dot votes each)

Taking stock: how do we think we are doing on each of the 7 prioritized activities?

The group rated the program and their classroom’s performance on a scale of 1-10 where 10 is the highest or “best” value. Some of the votes were focused on their classroom performance while others were focused on the program as a whole. We discussed the variation of scores based on how people interpreted classroom performance and program performance (i.e. room 22 and consistency was specifically brought up).
<table>
<thead>
<tr>
<th>Group Average</th>
<th>K-3 Average</th>
<th>K-4 Average</th>
<th>Room 21 Average</th>
<th>Room 22 Average</th>
<th>O.T. and Speech Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>(11)</td>
<td>(2)</td>
<td>(2)</td>
<td>(1)</td>
<td>(4)</td>
<td>(2)</td>
</tr>
<tr>
<td>Teacher/Student Ratio</td>
<td>8.6</td>
<td>8.5</td>
<td>8</td>
<td>10</td>
<td>8.5</td>
</tr>
<tr>
<td>Individualized Instruction</td>
<td>8.4</td>
<td>8</td>
<td>8.5</td>
<td>9</td>
<td>8.5</td>
</tr>
<tr>
<td>Communication (with students)</td>
<td>7</td>
<td>6.5</td>
<td>7</td>
<td>7</td>
<td>7.3</td>
</tr>
<tr>
<td>Collaboration</td>
<td>6.8</td>
<td>6.5</td>
<td>7.5</td>
<td>8</td>
<td>6.5</td>
</tr>
<tr>
<td>Behavior Management</td>
<td>6.8</td>
<td>7</td>
<td>6</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>Consistency</td>
<td>6.5</td>
<td>6.5</td>
<td>7</td>
<td>8</td>
<td>5.6</td>
</tr>
<tr>
<td>Training</td>
<td>5.7</td>
<td>7</td>
<td>6</td>
<td>8</td>
<td>4</td>
</tr>
</tbody>
</table>

**Goal Setting**

Based on the average group score we made specific goals for all the activities that were rated less than 7 (training, consistency, behavior management, and collaboration). Along with each goal we decided how we would document our progress towards achieving that goal:

<table>
<thead>
<tr>
<th>Goal</th>
<th>Strategies</th>
<th>Documenting Progress</th>
</tr>
</thead>
</table>
| Increase the amount of training | • 1 morning meeting per week with the classroom teacher that focuses specifically on training classroom staff  
• 1 afternoon meeting per week (Tuesdays potentially) where aides in each class run their own meeting discussing training; the basic idea is that veterans can teach newer aides and for all to exchange tactics with each other | In both the afternoon and morning meetings someone will take notes illustrating what training topics were covered to ensure that each meeting was productive and helpful for everyone |
| Increase consistency | • Within each classroom meetings lead by teachers will cover ideas that reinforce uniformity in teaching strategies and addressing student behavior/expectations  
• As a program each teacher will collaborate with aides | • At classroom meetings someone will be responsible for jotting down notes that illustrate what was discussed and what the uniform expectation is  
• Based on each classroom goal, like lining up for |
| Better prepare staff on behavior management techniques | All staff within the classroom knows which students have BSPs as well as know what to do during a behavior episode and to follow through with the guidelines in the BSP | • Each classroom staff will have a copy of each students’ BSP in a folder in their station along with data sheets and guidelines for taking data (not out in the open)  
• Data based accountability: no data must mean the student is not having behaviors or melt downs in your station |
|---|---|---|
| Increase collaboration within and between classrooms | • At the classroom level: making sure all staff are contributing to discussions in classroom meetings when appropriate  
• At the program level: hold subject based meetings amongst classrooms to discuss teaching strategies (i.e. a collaborative meeting for aides responsible for teaching math in rooms 21 and 22 can get together to discuss touch point math techniques. The same can be done with k-3 and k-4. | • In classroom meetings the documentation will be notes that focus on the topics covered in the meeting to see if the same topics keep getting brought up and also ensure that everyone contributes when appropriate  
• In subject meetings notes will be taken illustrating what teaching strategies were covered and some of the specific techniques related to each subject area |

Developing goals and how we are going to monitor progress was the final step in the project. I anticipate that around February or the beginning of March I will be visiting each classroom to ask about the classroom components to our goals as well as potentially hold one or two morning meetings that incorporate everyone from each room to discuss how we are doing on our program goals. If needed, we will adjust or create new goals for the ones we have met. One of my ultimate goals for this project is for everyone to become comfortable with the process of prioritizing activities to create goals so that we can continuously adapt to the program’s and students’ needs from year to year as well as to become more self-regulating especially in the current budget situation we are in.
Appendix C

American Institutes for Research’s “Appendix B: CASEMIS Disability Counts” within California
### Appendix B. CASEMIS Disability Counts

#### Exhibit B-1. CASEMIS Disability Counts

<table>
<thead>
<tr>
<th>Disability</th>
<th>1996</th>
<th>1999</th>
<th>2002</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Disabilities</td>
<td>547,494</td>
<td>584,890</td>
<td>613,561</td>
<td>6.8%</td>
</tr>
<tr>
<td>Autism (AUT)</td>
<td>4,410</td>
<td>8,626</td>
<td>16,537</td>
<td>95.6%</td>
</tr>
<tr>
<td>Deafness (DEAF)</td>
<td>2,924</td>
<td>3,117</td>
<td>3,121</td>
<td>6.6%</td>
</tr>
<tr>
<td>Deaf-Blindness (DB)</td>
<td>150</td>
<td>135</td>
<td>166</td>
<td>-10.0%</td>
</tr>
<tr>
<td>Emotional Disturbance (ED)</td>
<td>12,196</td>
<td>13,691</td>
<td>18,053</td>
<td>12.3%</td>
</tr>
<tr>
<td>Established Medical Disability (EMD)</td>
<td>-</td>
<td>4</td>
<td>134</td>
<td>-</td>
</tr>
<tr>
<td>Hard of Hearing (HH)</td>
<td>5,464</td>
<td>5,846</td>
<td>6,167</td>
<td>7.0%</td>
</tr>
<tr>
<td>Mental Retardation (MR)</td>
<td>30,739</td>
<td>34,616</td>
<td>38,505</td>
<td>12.6%</td>
</tr>
<tr>
<td>Multiple Disability (MD)</td>
<td>5,468</td>
<td>5,110</td>
<td>5,270</td>
<td>-0.5%</td>
</tr>
<tr>
<td>Orthopedic Impairment (OI)</td>
<td>11,037</td>
<td>11,953</td>
<td>12,732</td>
<td>8.3%</td>
</tr>
<tr>
<td>Other Health Impairment (CHI)</td>
<td>13,396</td>
<td>16,222</td>
<td>24,719</td>
<td>21.1%</td>
</tr>
<tr>
<td>Specific Learning Disability (SLD)</td>
<td>328,412</td>
<td>342,964</td>
<td>337,954</td>
<td>4.4%</td>
</tr>
<tr>
<td>Speech or Language Impairment (SLI)</td>
<td>128,912</td>
<td>137,467</td>
<td>145,006</td>
<td>6.6%</td>
</tr>
<tr>
<td>Traumatic Brain Injury (TBI)</td>
<td>818</td>
<td>1,126</td>
<td>1,419</td>
<td>37.7%</td>
</tr>
<tr>
<td>Visual Impairment (VI)</td>
<td>3,568</td>
<td>3,702</td>
<td>3,778</td>
<td>3.8%</td>
</tr>
</tbody>
</table>
Appendix D

American Institutes for Research’s “Appendix H: Total Special Education Cost Estimates by Disability Category, Preschool, and NPS, 2002-03” within California
### APPENDIX H. TOTAL SPECIAL EDUCATION COST ESTIMATES BY DISABILITY CATEGORY, PRESCHOOL, AND NPS, 2002-03

<table>
<thead>
<tr>
<th>Public School-Aged Students by Disability Category</th>
<th>SEEP Special Education Expenditure Estimates, inflated to 2002-03 using CPI(^*)</th>
<th>CASEMIS Cost Estimates, inflated to 2002-03 using California COLA(^*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>Standard Deviation</td>
<td>Mean</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>---------------------------------</td>
<td>---------------------------------</td>
</tr>
<tr>
<td>Autism</td>
<td>$16,370</td>
<td>$1,567</td>
</tr>
<tr>
<td>Deaf-Blind</td>
<td>n/a</td>
<td>-</td>
</tr>
<tr>
<td>Deaf</td>
<td>n/a</td>
<td>-</td>
</tr>
<tr>
<td>Emotional Disturbance</td>
<td>$10,633</td>
<td>$1,240</td>
</tr>
<tr>
<td>Established Medical Disability</td>
<td>n/a</td>
<td>-</td>
</tr>
<tr>
<td>Hard of Hearing</td>
<td>n/a</td>
<td>-</td>
</tr>
<tr>
<td>Hearing Impairment/Deaf</td>
<td>$11,839</td>
<td>$1,003</td>
</tr>
<tr>
<td>Multiple Disability</td>
<td>$13,396</td>
<td>$955</td>
</tr>
<tr>
<td>Mental Retardation</td>
<td>$12,255</td>
<td>$607</td>
</tr>
<tr>
<td>Other Health Impairment</td>
<td>$9,416</td>
<td>$662</td>
</tr>
<tr>
<td>Orthopedic Impairment</td>
<td>$11,712</td>
<td>$843</td>
</tr>
<tr>
<td>Specific Learning Disability</td>
<td>$5,924</td>
<td>$276</td>
</tr>
<tr>
<td>Speech/Language Impairment</td>
<td>$6,813</td>
<td>$1,649</td>
</tr>
<tr>
<td>Traumatic Brain Injury</td>
<td>$13,402</td>
<td>$1,588</td>
</tr>
<tr>
<td>Visual Impairment/ Blind</td>
<td>$14,840</td>
<td>$1,888</td>
</tr>
<tr>
<td>Preschool</td>
<td>$10,771</td>
<td>$1,113</td>
</tr>
<tr>
<td>Nonpublic School Students</td>
<td>$27,515</td>
<td>$2,409</td>
</tr>
<tr>
<td>NPS out of state</td>
<td>n/a</td>
<td>-</td>
</tr>
</tbody>
</table>

* 1999-2000 national figures were inflated using the Consumer Price Index, adjusted to the school year 2002-03.
** CASEMIS 2001-02 estimates were inflated to 2002-03 using the California Cost of Living Adjustment (2.0 percent).


CASEMIS estimates were derived using December 2002 CASEMIS, 2001-02 special education personnel data report, and 2001-02 J-90 certified salary file. CASEMIS estimates are based on standard costs assigned to special education placements and services, after revenue limits have been deducted from SDC and NPS costs. These estimates reflect personnel, non-personnel, and administration costs.