

# Analysis of a Community Martial Arts Program Designed to Include Persons with Disabilities

*Developing a Model for Replicating and Improving Inclusive Martial Arts Programs*

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## **Abstract**

*The results of an evaluation of a Special Abilities martial arts program in Minot, ND are discussed. The objective of this exploration are to develop recommendations for improving this particular program to better meet the needs of current and potential students with disabilities, as well as to provide a model for other martial arts schools to follow to enhance their ability to include persons with disabilities.*

## **Introduction**

I initiated the adaptive Tae Kwon Do class that is the subject of this study in September of 2006. My original interest in such a program has its roots in the reason I began participating in Tae Kwon do while in the Occupational Therapy program at the University of North Dakota in Grand Forks in 1994. A classmate showed me an article about a black-belt that was teaching children with disabilities. I continued with Tae Kwon Do and earned my second degree black belt and also became an instructor trainee. In my professional practice, I specialized in pediatrics and began private practice in the spring of 2006. The combination of my background as a therapist and my instructor trainee status allowed me to begin an adaptive Tae Kwon Do class. The program has been morphing since inception, and I felt an analysis of student and family satisfaction would be a useful project to improve this program as well as to provide a model for other programs in the state. The assumption at the beginning of this project is that, despite there being a handful of activities solely for persons with disabilities, there is a limited number of programs that truly are inclusive for persons with disabilities.

This project included an interview with current students in the class, a short interview with a few families of persons with disabilities that might be interested in such a class, and a more in depth interview with parents of current class participants. This project is limited by the low number of students in the class, currently 4 students. One student was not included in the survey due to privacy issues but 3 students were interviewed directly. Three families were also interviewed.

The rationale for this project revolved around martial arts instructor's interest in expanding the program to include people with a wide variety of disabilities as well as improving the integration of the adaptive class students into regular adult and youth classes. Thought there are several activities in our community that are offered for youth with disabilities, none were known to be an established community recreational activity that included and integrated youth with disabilities. The Minot, ND community as a whole will benefit from improving the scope of this program and its ability to serve persons with disabilities.

It is assumed that participation in the current adaptive Tae Kwon Do class has had significant positive effects on students and their families, but it was also felt that there was

significant room for improvement. The program had been adapted the way the instructors thought would be best up until this point, and receiving more formal feedback from the families and students would be very helpful.

### **Program Overview**

Surveys were utilized to maintain a consistent set of questions. The groups surveyed included families of persons with disabilities who filled out the questionnaires, surveys filled out by myself during interview with the student participants, and surveys filled out by myself with a few families that might be interested in an adaptive Tae Kwon Do program.

Current martial arts class participants included in this project include 3 youth, ages 13-18. These youth have a variety of disabilities, including quadriplegic cerebral palsy, developmental motor delays, Down syndrome. One of the parents of each of these students filled out the parent questionnaire. The class meets one night a week for the adaptive class, and several students participate in an adult class as well one other night per week. The adaptive class is led by 1-3 instructors to provide a high instructor to student ratio, and more one on one time is available with instructors. One instructor is myself, a private practice occupational therapist specializing in pediatrics and is a 2<sup>nd</sup> degree black belt. One instructor is the school head instructor, who teaches all ages and levels full time and who is a 5<sup>th</sup> degree black belt. The third instructor is most often assisting with the students with special needs in the adult class. He has a background in working with youth and is a 2<sup>nd</sup> degree black belt. As the class size is relatively small to maintain a high instructor to student ratio, the three students and their families were chosen because they volunteered when asked.

The young lady with cerebral palsy is 13 and must use a wheeled walker or a wheelchair for all mobility. We will call her Kate, which is not her real name. She has better use of her upper extremities than lower, and has better use of her left upper extremity than her right. Kate has limitations in active range of motion and difficulty completing ballistic (rapid) planned movements due to countering spastic responses. She has average to above average intelligence for her age. Kate participates in the summers due to her busy schedule during the school year. She is a yellow belt (3<sup>rd</sup> belt). Kate's mother participated in the survey.

The young lady with Down syndrome will be known as Sue for this project. She independently ambulates and is quite flexible. She does fatigue quickly with activity but this most often appears to be during less active times of the classes. She sometimes requires extra encouragement to join the class, but is quite happy about achievements made during classes and testing. Sue is a purple belt (6<sup>th</sup> belt). Sue's mother participated in the survey.

The young man participating in this project will be called Kevin. He has developmental motor delays and has had surgery to release tendons in his heel-cords. Kevin ambulates independently but requires supportive orthotics in his shoes to walk comfortably and with better balance. He has been participating in Tae Kwon Do classes without his shoes and has done well with this. Kevin is a purple belt as well (6<sup>th</sup> belt). Kevin's father participated in the survey.

Surveys were also given to several families with a child with disabilities that might be interested in the adaptive Tae Kwon Do class. This information was gathered to obtain feedback about what other families would expect and look for in such a program, before seeing how the class operates.

## **Evaluation Tools**

At first, a standardized survey assessing life satisfaction was sought to provide a consistent measure, but after much searching nothing suitable was found that would effectively work for the objectives of the project. Coordination and strength measurements were considered, but our sample of students had already been participating for over a year, and again, such measurements would not meet the goal to improve and model the program. Therefore, informal surveys were developed to keep questions consistent and addressing specifically the areas of this particular program that were intended. Questionnaires included questions about barriers, cost, initial expectations, perceived benefits, other programs the family is aware of, and suggestions for improvement.

## **Procedure and Research**

Research for this project initiated with looking specifically for other adaptive martial arts classes in North Dakota. One similar class, other than the class in Minot, was found to exist in Fargo, ND. The Fargo class primarily included students with Autism spectrum disorders and Downs syndrome. Some other programs were found to include occasional participants with mild disabilities, such as mild hemi paresis in which one side upper and/or lower extremities are mildly involved, and the participant participates in a regularly scheduled class. The American Tae Kwon Do Association, which the Minot school in this study is a member of, does have national competitions that include disability categories. Some adaptive techniques, such as to replace foot techniques with hand techniques were found to be available from another ATA program, but no standardized adaptations were found for alternate mobility devices, such as wheelchairs or walkers.

Projects around the country that were inclusive and/or adapted for persons with disabilities while still allowing participation in activities that their non-disabled peers would participate in were found to be minimal. Most community based activities are either designed for only persons with disabilities, or when adapted, are adapted with isolated groups of disabled persons. There are also camps for persons with disabilities at which typical camp activities are available, but these situations are typically for only persons with disabilities and not truly integrated in nature. For this reason, it was determined that certain aspects of most recreational activities make full integration of significantly varying abilities difficult. An example is with an intramural volleyball league. If participants must play as a team, but have different methods of mobility, coordination, and understanding of the game, it becomes more difficult to integrate these varying abilities. It was found that the characteristics of martial arts programs that allow them to more easily be integrated include the individualized nature of progression in standardized movements and forms.

## **Survey Results and Discussion**

This project will be ongoing, as only a relatively small number of students were able or willing to participate in the surveys for this project. The plan is to obtain information from the other students to help with deciding on modifications. Their information will not be formally included in this write up.

**Program attraction and initial expectations for families:**

All but one of the participants learned about the program from their therapist, who is an instructor and the author of this project. One student learned about the class from a co-worker who is the instructor that helps with the integrated adult class. The initial attraction to the class was reported by one family to be the level of fun and activity that drew their daughter in. One family was drawn to the physical benefits for their child, such as balance and coordination, as well as to build confidence. One student joined because of the ethics/values and discipline. Initial expectations for all students was relatively low. One family felt their child would “last a few weeks and then he would be done”. Their view changed to “wanting him to get his black-belt and beyond”. One family had very low expectations, and just wanted her to get some movement and possibly to increase self confidence. All participant initial objectives were being met and exceeded.

**Effect of participation on participants and families:**

Two families report that balance, motor planning, and coordination, along with flexibility for one child are notable improvements. One family reports a significant improvement in many mental attributes, including self esteem, confidence, attention, respect, and discipline. The other two families also report improvements in self confidence and pride. Students all are reported to have increased social skills, such as becoming more outgoing, increasing opportunities for interaction, and with self discipline. Students and their families all report looking forward to class. Students report that their siblings and friends show interest and think it’s *cool*.

Participating families currently report being pleased with the way the students are currently integrated into the one time-per-week adaptive class and the one time-per-week adult class. One parent reports that they are pleased with how the adult students also assist with class activities for his child, and another parents reports that their child is beginning to participate in more activities with adult students and also to take instruction from the non adaptive class instructors.

**Barriers to participation:**

Cost was perceived as a barrier by all families, which included those who felt they could afford to have their children in the class but thought it would be a significant barrier to many other families. The class students currently pay the same membership fees that the other students of this martial arts school pay. One family also had worries about their child’s mood and limited attention.

**Recommendations of participating families for improvement:**

Families actually did not have as many recommendations for change as was expected. Two families would like a customized DVD that shows the forms done slower and with pauses between movements for easier use when practicing outside of class. DVDs of current level forms are given out to the students but are of standard ATA forms and at full speed.

## Summary

I was impressed most with two aspects of the information gathered. I did not realize that the family's initial expectations for their child's participation in the adaptive Tae kwon do class were so low, but was pleased to see that they were pleasantly surprised. From this information, it is felt that any promotion of the class should increase its focus on what can be expected for students with disabilities. The quietest student has participated in presentations about the class in front of a large group, and did a wonderful job. The other important information that came out of the project was the specific recommendation by two families for an adapted DVD to assist with forms. This will lead to a new project to create the DVD to their specifications with slowed movements and long pauses between movement segments to allow parents to help prompt their children when practicing outside of class. The plan is to ask some of our current adaptive class students to participate in making the video. Other recommendations that came out of this project include breaking down activities to small specific segments for practice at home.

When doing research for other similar programs, I was surprised to find that there were no comparable community based recreational activities that consisted of an established program, adapted for persons with disabilities. There are camps and groups designed for students with disabilities, and there is a t-ball team of the same nature, but in these situations the students with disabilities are not integrated into the same activities as their non-disabled peers. I feel this program could easily be modeled in other ATA schools in the state, but it would require instructors with an open mind to adapt teaching and programming methods depending on varying student's varying adaptive needs. Instructors with a background working with disabilities are also helpful as challenges may differ from teaching traditional martial arts classes.