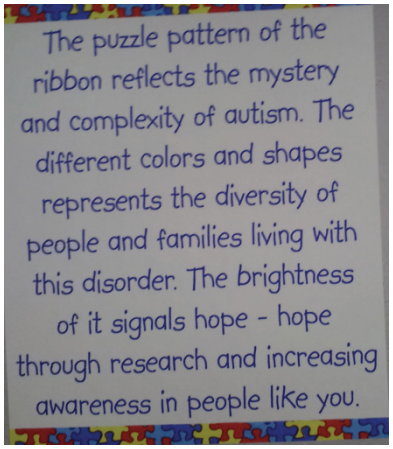
A.1 Educational Philosophy

Pieceful Solutions Charter School is a K-5 charter school, established to educate students with autism and related disorders in a structured learning environment, by using the best, research-based and evidence-proven developmentally appropriate teaching strategies.

Autism is a complex developmental disability that typically appears during the first three years of life and is the result of a neurological disorder that affects the normal functioning of the brain, impacting development in the areas of social interaction and communication skills. Both children and adults with autism typically show difficulties in verbal and non-verbal communication, social interactions, repetitive behaviors, and leisure or play activities. Autism is a spectrum disorder and it affects each individual differently and at varying degrees. There is no known single cause for autism.



Autism occurs in all racial, ethnic, and socioeconomic groups and is five times more likely to occur in boys than girls. Nationally, about 1 in 88 children has been identified with an autism spectrum disorder (ASD) according to estimates from Center for Disease Control's Autism and Developmental Disabilities Monitoring (ADDM) Network. The network reports the prevalence of ASD in Arizona as 1 in 64 children, a rate that is significantly higher than the national average[1]. It becomes critical that the needs of this population are addressed. The need is urgent for excellent schools focused on educating children with autism using research-based and evidence-proven strategies.

Pieceful Solutions Philosophical Approach

- Pieceful Solutions Charter School embraces the philosophy of excellence in education.
- Pieceful Solutions' core philosophy is that every child deserves to be healthy, safe, empowered, supported, and challenged, and that if every child is given the tools, opportunity, and nurturing environment they can achieve success in school, college, career, and life. It is our commitment to help children with autism rejoin the world and function within it to the best of their abilities.
- Pieceful Solutions believes in unveiling each child's strengths to build self-confidence and create success in school, career, and life.
- Pieceful Solutions embraces the philosophy of education of the whole child through highly individualized and integrated educational programs, using the best, research-based and evidence-proven developmentally appropriate teaching strategies available up-to-date. At Pieceful Solutions Charter School "one size does not fit all". As Kami Cothrun, founder of Pieceful Solutions Charter Schools states" if you've met one child with autism, you've met one child with autism". Research, practice, and common sense confirm that a whole child approach to education develops and prepares students for the challenges and opportunities of today and tomorrow.

[1] http://www.cdc.gov/ncbddd/autism/data.html#economic
Community Report From the Autism and Developmental Disabilities Monitoring (ADDM) Network Prevalence of Autism Spectrum Disorders (ASDs) Among Multiple Areas of the United States in 2008. This community report summarizes the main findings from the following published report: Centers for Disease Control and Prevention (CDC). Prevalence of Autism Spectrum Disorders–Autism and Developmental Disabilities Monitoring Network, United States, 2008. Morbidity and Mortal Weekly Report (MMWR) 2012; Vol. 61(3).

Pieceful Solutions Charter Schools vision:

Support for every student and their family

Opportunities for all students to achieve academically and enhance their lives

Language enriched curricula

Unique programs based on specific needs

Therapeutic strategies including sensory, fine motor, music, language, and play

Independent learning to promote independent living

Open communication among school, therapists, parents and others involved in the lives of the student

Nurturing environment with exceptionally skilled, trained and loving staff

Social skills training using innovative techniques

Principles or concepts fundamental to Pieceful Solutions proposed program of instruction

Consistent with its philosophy, mission and vision, Pieceful Solutions Charter School will educate students with autism and related disorders by providing:

1. Carefully selected core and supplemental curriculum, aligned to Arizona Standards and proven by research to improve achievement in students with autism, such as: in English/Language Arts - SRA Kaleidoscope; Reading A-Z; Lindamood-Bell Learning; in Math – Singapore Math , SRA Math, TouchMath, Project-Based Math; in Social Studies - geography, American history, world history and government and politics; and in Science - "World Alive". Arts, Music, Karate and Yoga classes will supplement the regular curriculum to make the curriculum multimodality and accessible to learners with different skills and levels.

2. Research-based and evidence-proven developmentally appropriate instructional strategies, specifically selected to deliver the curriculum, which have been proven to improve student achievement students with autism, such as: Multi-Grade/Multi-Age Classrooms; Direct Instruction; Cooperative Learning Groups; Differentiated Instruction; Scaffolding/Shaping; Discrete Trial Training; Video Modeling; Relationship Development Intervention (RDI), Floor time Approach; Augmentative and Alternative Communication (AAC), The Natural Aided Language (NAL), Speech Therapy and Occupational Therapy; Errorless Teaching; Task Analysis; Anxiety Reducing Strategies; Sensory Integration; Hands-On Project-Based Methods to develop fine motor and gross motor skills/physical education; Technology and Assistive Technology.

3. Structured, highly individualized learning environment for its students with individually built positive reinforcements - based on our target population, we anticipate that most students will be working off of Individualized Education Plans (IEPs) that are specific to their needs. Students who are not on an IEP will also have customized education plans in the form of Personalized Education Plans (PEPs).

Aside from education in the areas of English/Language Arts, Math and Social Studies/Science, learners with ASD also need programming to meet their needs in the areas of communication/social/emotional and daily living skills. Each of these skills will be aligned with a specific Academic Standard within the IEP. Highly individualized systematic positive reinforcement and behavior plans will which include reward systems, carefully selected and designed reinforce student academic and social achievements.

4. Data-driven culture for student achievement – rigorous and comprehensive assessments (initial, formative, summative) and extensive data analysis will provide students with the opportunity to achieve the highest standards of achievement. Data will be collected on a daily basis and analyzed by personnel, who will make decisions for all individual educational programs based on results and analysis. When looking at student achievement, Pieceful Solutions looks at growth in students in all areas. In special education, growth often refers to changes in performance on curriculum-based or norm-referenced measures designed to assess basic skills, regardless of the student's grade level. Although important for diagnostic purposes, these measures may not be the best for growth models. A basic skills focus can inaccurately measure the performance of students who have mastered grade level higher-order skills (such as problem solving) without mastering lower level skills (such as computation). Standards-based growth models do not measure growth toward individualized student goals. At Pieceful Solutions, student growth will be measured by progress on standards based models but more importantly on progress on individualized goals, which are aligned with standards.

   Assessments include: *Initial* -study of the student's IEP, Previous progress reports, Previous AIMS or AIMS-A results, MET reports, IQ score, Brigance's score for grade equivalency, Curriculum level placement tests (e.g. Singapore Math Placement Test), AIMS Web tests, ABLLS diagnostic and testing instruments for determining academic skills and cognitive levels for students on the autism spectrum; Functional Behavior Assessments (FBA); *Formative* - teacher prepared pre and post tests, pre and post tests available through the reading and math curriculum, formal and in-formal observations and self-evaluations, AIMS Web assessments; Data Sheets with charts for each IEP/PEP goal; *Summative* - teacher-made, curriculum-based ,summative assessments in the areas of communication, adaptive and daily skills; state-mandated AIMS and AIMS-A.

5. Small class sizes with a small teacher/student ratio. Class size at Pieceful Solution Charter School is geared toward the highly individualized program of instruction and learning environment and is based on the developmental and academic needs of the students. High teacher/student ratio is needed to promote student academic success. Class size at Pieceful Solution Charter School will be: 1 teacher for 14-15 students with 3 to 4 instructional assistants for highly functioning students and 1 teacher for 8-9 students with 3 to 4 instructional assistants for higher needs students.

6. Highly qualified staff, specially trained and chosen for their exceptional skills and commitment to working with children with special needs and autism. Constant, ongoing education for all staff will ensure that all personnel are up-to-date on the latest research, best practices, techniques and methodologies. Highly qualified and skilled professionals including, but not limited to Physical Therapists, Speech Therapists, and Behavior Therapists, who treat students outside of the school will provide support to students in achieving their goals.

- Providing detail regarding improving pupil achievement in the target population.

Pieceful Solutions Charter School proposed program of instruction improves student achievement in the target population. The rationale for our approach and methodology is based on deep and detailed knowledge of our target population, research and evidence in support of the chosen curriculum, instructional methodology and assessment practices, as well as the successful founder's experience in educating autistic students.

Founder's Experience

Pieceful Solutions Charter School will build upon the pioneer success of the private operation established by Kami Cothrun in 2008 with 6 students in Apache Junction, Arizona, which grew to two campuses in Mesa and Chandler, currently serving 120 students. As a former public school elementary special education teacher, habilitation provider/consultant and business owner, Kami still had dreams of creating a school that would be created with children with autism in mind. With a masters in special education and 12 years of experience with children with autism (8 years owning a state funded habilitation and respite agency) Kami felt she had much more to offer children with autism and their families. Kami noticed that students needed a place to learn where they felt understood and accepted! No matter the functioning level of the students, if a student does not feel safe they cannot learn. By creating an environment that understands how our students think and learn and providing support through both highly qualified staff and tools such as multi-modality curriculum and sensory, Kami strives to provide everything possible to ensure success and self-confidence!

The quality of the model developed by Kami is validated by the overwhelming demand, which exists for quality education for students with autism. Parents with children with autism from all over the state (Yuma, Flagstaff and other locations) who have heard about the innovative and highly effective method of instruction at Pieceful Solutions and made a tour and got to know the school better, submitted inquiries about opening such schools in their communities, or just went on to move closer to the current location of the school. Compelling are the stories of families with autistic kids from across the US that have decided to relocate to Phoenix to have an opportunity to enroll their autistic kids at Pieceful Solutions. Pieceful Solutions grabbed the attention of the local media and Channel 12 and Fox 10 news aired reports on the success of the school's program in educating kids with autism. The opening of Pieceful Solutions Charter Schools will provide a major solution to many parents and students who now struggle to find the education that meets their needs and expectations.

The success of Pieceful Solutions educational model in educating autistic kids is also evident in the academic results achieved by its students. When looking at student achievement, Pieceful Solutions looks at growth in students in all areas. In special education, growth often refers to changes in performance on curriculum-based or norm-referenced measures designed to assess basic skills, regardless of the student's grade level. Although important for diagnostic purposes, these measures may not be the best for growth models. A basic skills focus can inaccurately measure the performance of students who have mastered grade level higher-order skills (such as problem solving) without mastering

lower level skills (such as computation). Standards-based growth models do not measure growth toward individualized student goals. At Pieceful Solutions, student growth is measured by progress on standards based models but more importantly on progress on individualized goals, which are aligned with standards.

During the 2012-2013 progress students at Pieceful Solutions mastered 252 IEP goals out of 336 written IEP goals with 80% mastery level, i.e. 70% of the kids with autism met 70% of their goals!

Research

Numerous research proves the effectiveness of the curriculum at Pieceful Solutions Charter School to address the needs of the students with autism. Below are highlights of several of the most significant and specific findings that have emerged from various studies:

- SRA Kaleidoscope, designed to prevent struggling readers in Grades K-1 from falling behind and to bring Grades 2-8 students performing two or more years behind up to grade level. This effective, research-based program meets the Response to Intervention (RTI) requirements of the federal Individuals with Disabilities Education Act (IDEA). In addition, SRA Kaleidoscope provides targeted instruction in decoding, word study, dictation, grammar, mechanics, writing, and spelling.
- Lindamood-Bell Learning –teachers at Pieceful Solutions Charter School will use the Lindamood-Bell Learning, a research-validated, process-based instructional program to strengthen reading, comprehension, and math skills by developing the sensory-cognitive functions that form the foundation of learning. The Lindamood-Bell programs have proven successful for individuals with a wide range of learning challenges, including previous, third-party diagnoses of learning disabilities such as dyslexia, hyperlexia, ADHD, CAPD, and autism spectrum disorders. In 2011, Lindamood-Bell Learning Centers worked with 297 students who reported having previous, third-party diagnoses of an Autism Spectrum Disorder. That is 11% of the total student population at the Learning Centers. Before starting instruction, on average, these students tested below the 21 st percentile in every comprehension-oriented category of the Lindamood-Bell learning ability evaluation (i.e., vocabulary, word opposites, oral directions, and comprehension).
- TouchMath has been proven to raise math test scores in classrooms around the world for over three decades. A growing body of independent, primary and secondary research continues to validate the fundamental principles of the TouchMath system and point to a common conclusion: TouchMath's multisensory approach and sequential strategy improve student math comprehension and mastery.
- Singapore math: Singapore ranked No. 1 among all nations in TIMSS (Trends in International Mathematics and Science Study) in 1995, 1999 and 2003 and has been consistently near the top of other TIMSS studies. In the US, The Singapore Math teaching method is increasingly being used in more than 1500 schools, where students in all grades place higher than the state average in math in state mandated tests (Massachussetts) and show considerable improvements in computation skills, including special education students (South Street Elementary School), and below grade level students (Beachmont Elementary school).[2]

The methods of instruction at Pieceful Solutions Charter School include research-based and evidence-proven developmentally appropriate instructional strategies, specifically selected to deliver the

[2] The American Institutes for Research (AIR) 2005.*What the United States Can Learn From Singapore's World-Class Mathematics System (and what Singapore can learn from the United States).* Study funded by the U.S. Department of Education.

curriculum, which have been proven to improve student achievement students with autism, such as: Multi-Grade/Multi-Age Classrooms; Direct Instruction; Cooperative Learning Groups; Differentiated Instruction; Scaffolding/Shaping; Discrete Trial Training; Video Modeling; Relationship Development Intervention (RDI), Floor time Approach; Applied Behavior Analysis methodology - Augmentative and Alternative Communication (AAC), The Natural Aided Language (NAL), Speech Therapy and Occupational Therapy; Errorless Teaching; Task Analysis; Anxiety Reducing Strategies; Sensory Integration; Hands-On Project-Based Methods to develop fine motor and gross motor skills/physical education; Technology and Assistive Technology.

Pieceful Solutions Charter School targets to serve students with autism and ASD in the K-5 grades from Phoenix Metro area. The CDC's Autism and Developmental Disabilities Monitoring (ADDM) Network reports the prevalence of ASD in Arizona as 1 in 64 children, a rate that is significantly higher than the national average of 1:88. Serving this population will remove the strain from the traditional public school system, and will offer an alternative quality school choice to special need students and their families. It becomes critical that the needs of this population are addressed.

Nationwide, a total of 71 charter schools specifically designed to serve children with disabilities were identified in 13 different states and the District of Columbia. The largest number of such schools (34) is located in Florida and the next highest incidence (16) is in Ohio. No other state has more than three charter schools of this type. Of those, 20 served children with autism or autism spectrum disorders.[3]

In Arizona, Pieceful Solutions Charter School will be one the first operational public charter school created to serve students with autism. The school will also build on the synergistic effect that will be created by having students with autism on one campus – economies of scale that will allow the resources to fully serve the target population and the concentration of highly qualified and knowledgeable education team to meet the needs of this specific population Pieceful Solutions Charter School strives to serve as a model of excellence for the education of students with autism and ASD, and will promote the latest methodologies and techniques being utilized.

[3] Source: Mead, J. F. (January 2008). Charter Schools Designed for Children with Disabilities: An Initial Examination of Issues and Questions Raised. Available on the internet: http://www.uscharterschools.org/specialedprimers/download/special_report_mead.pdf. Synthesis of Two Reports on Critical Issues for Special Education in Charter Schools– Number of Charter Schools Designed for Children with Disabilities, accesses at http://www.projectforum.org