

iQsonics LLC Annual Report - 2020

OUR MISSION



iQsonics integrates sound and neuroscience for health, education and fun. Our team of researchers, neuroscientists, programmers, musicians, artists, therapists, educators and entrepreneurs design products and services that reach the target population in clinics, schools and families at home.

IQSONICS RESEARCH AND GRANTS

Completion of SBIR Phase 1 Study - Department of Education



SBIR · STTR
America's Seed Fund



iQsonics completed its largest project to date with the pilot study ***Sing and Speak 4 Kids: Online Music-based Game for Children with Speech-Language Delays/Disorders***. Funded in July 2019 for an SBIR Phase 1 study by IES/Dept. of Education, Contract 91990019C0023, and completed in February 2020 with CEO David Sonnenschein as Principle Investigator and Drs. Hayoung Lim and Erica Ellis as Co-PIs, this research helped establish the usability, feasibility, initial effectiveness and marketability of the program.

Results of the study

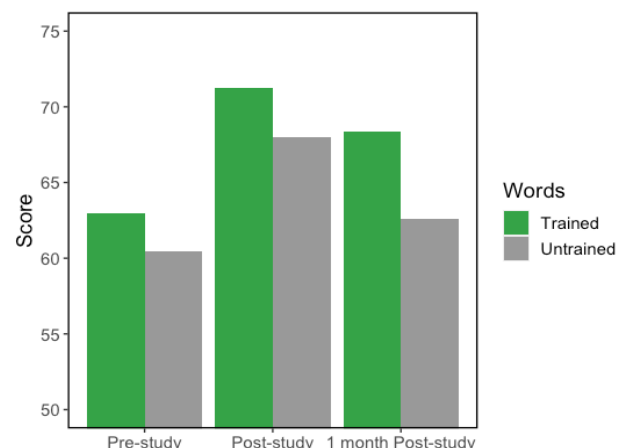
1. SS4Kids training played a vital role in participants' score improvement over the study. The difference (changes of score) between pre-test and post-test for the trained target words was statistically significant.

2. Teachers alone, parents alone, and/or teachers with parents as trainers, can result in the improvement of children's speech and language production. Group conditions did not influence the pre-test score and post-test score.

3. SS4Kids can support general speech/language development for children who are ELLs (English Language Learners). Statistically significant results indicate that

Treatment Effect

Pre vs. Post vs. 1-month Post



participants with no identified speech or language impairment had higher scores overall than those who had speech and/or language impairments.

4. A carry-over maintenance effect of SS4Kids for young children with speech/language impairments and ELLs may exist. Results indicated no significant decrease between post-study and 1-month follow-up scores for trained words. Continuous use of SS4Kids might further develop their speech and language skills.

5. SS4Kids is an effective training method for improving speech and language production in these children. Collectively, the results suggest that SS4Kids is effective for enhancing both vocabulary acquisition and speech production in children with speech/language impairments due to ASD or other developmental disorders, as well as for children who are ELLs with and without impairments.

SS4Kids as an Evidence Based Practice

The significance of these findings helps establish SS4Kids as an Evidence Based Practice, the gold standard for health and education services, and supporting eligibility for federal, state and insurance funding. A research article will be submitted in 2021 for peer-reviewed publication in the Journal of Early Intervention, an important step toward industry-wide recognition.

Applying for SBIR Phase 2 Study



iQsonics applied for an SBIR Phase 2 study with IES / Dept. of Education with RAND Corporation as a research partner, but the project was not amongst the finalists selected (6 out of the 13 in Phase 1; those 13, including iQsonics, had been selected from 200 applicants). One of the reviewers' comments regarding the study design was that it was too "clinical" for the Dept. of Education, being conducted through CHOC (Children's Hospital of Orange County) exclusively for children with autism.

With that redirection, we applied to NIH with a revised submission that included CHOC as the primary recruiting and test site and **UCLA Semel Institute for Neuroscience and Human Behavior, Center for Autism Research and Treatment (CART) with Dr. Catherine Lord's Lab** providing an advance assessment protocol BOSCC (Brief Observation of Social Communication Change) to measure additional potential outcomes beyond verbal responses for children with ASD with SS4Kids.

If awarded, we will receive funding in July 2021 for a 2-year study that includes **4 Specific Aims:**

- 1. Effectiveness of SS4Kids** – A six-week trial performed in-home with 96 children/parent dyads will be randomized into three training conditions: a. Music; b. Speaking only; c. No training. Pre- and Post-tests will measure the verbal and communication outcomes of the different conditions.
- 2. Parent Training** – Video training modules will be refined using game-based learning with professional coaches to maximize engagement, usability and fidelity of implementation.
- 3. Community of Practice** – Parents and professionals will be provided an online forum, wiki, multi-language access and a User Generated Song sharing platform.
- 4. Tech R&D** – New components will be implemented to improve system stability, reliability, security, user experience and user outcomes, including an easy online payment portal.

Grammy Museum Foundation Grant



In partnership with the **University of Oklahoma Jeannine Rainbolt College of Education** (Vickie E. Lake, Ph.D., Associate Dean-Tulsa and Professor of Early Childhood Education, and Boo Young Lim, Ph. D. candidate) and Dr. Hayoung Lim of **ORU**, iQsonics applied for a grant to the Grammy Museum Foundation to conduct research on the effectiveness of SS4Kids for helping Dual Language Learner children, specifically working with the Myanmar and Spanish-speaking populations in Tulsa Oklahoma.

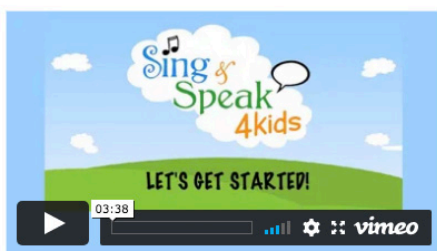
SS4KIDS PRODUCT NEWS

Gamification for Children and Parents



Randall Fujimoto of **Game Train Learning, Inc.** was hired to consult with iQsonics on developing and improving the game playing aspects of SS4Kids for both the child and parent user experience. With a Master's degree in Education/Instructional Design, an MBA, and experience as executive producer in the video games industry, Randal evaluated the purpose and end goals of SS4Kids and advised on utilizing a game-based learning approach to create higher engagement, retention, fidelity of implementation and outcomes for the program.

Promotional and Training Videos



Promotional and Training videos were created and posted on SingandSpeak4Kids.com, based on the game-based learning approach, to help parents and professionals begin playing SS4Kids with their children as quickly and most effectively as possible. Fun animation, music and a friendly female voice combined to present the most vital elements, for a significant start to a whole catalogue of marketing and training videos that will be produced over the next year, with continual updates to support the user experience.

New Songs Composed and Recorded



Fruity Toot



Breakfast Song



Lunch Song



Wow Song



Play Ball



Garden Pig



Body Bottom



Body Top



My Head



Cat and Rat



Let's Go Fast



Wake Up Time

12 new songs were composed and recorded while applying the speech-language learning protocol, with themes focusing on body parts, food, play and fun kid activities for high engagement. Four of these have been uploaded into SS4Kids, for a current total of 10 songs available to play. The eight unreleased songs plan to be launched gradually during 2021 with backstory revelations through social media promotions. Production team: **David Sonnenschein** lyrics/melodies and photo edit, **Jahna Perricone** onscreen voice talent, **Richard Ollis** video camera, **Kyle Hillbrand** musical accompaniment composition/performance, **Chris Toussaint** video edit, and **Joanne Manzella** programming sequences into the SS4Kids game.

SS4ids Free Access during COVID-19



MARCH 19-22 → **COVID cancelled**

iQsonics registered to be an exhibitor at the **annual CSHA (California Speech Language Hearing Association) convention** in March, but due to COVID-19, the event was **cancelled**. This global pandemic has affected literally every sector of our society, and created an urgent need for online remote learning and telehealth solutions. Five years prior we had a vision to offer an online, home-based program to rural, low income families with little or no access to clinics, and now find that we are on the forefront of this new world as a provider of an evidence-based, online educational tool for Early Childhood development. iQsonics decided to offer **free SS4Kids access to all users** during this drastic COVID-19 time.

IQSONICS TEAM GROWS!

2020 was a year of expanding our personnel in many areas, and what a great group of experienced “newcomers” to our company. Welcome aboard!

Research and Clinical Practice

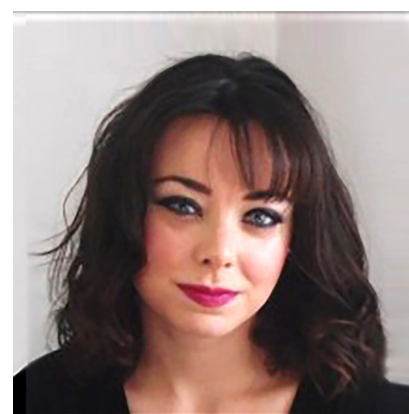


Chip Donohue and **Kathleen Howland** are extraordinary experts in their fields and have joined iQsonics as Senior Advisors contributing to the success of Sing and Speak 4 Kids.

Chip is Founding Director of Technology in Early Childhood (TEC) Center at Erikson Institute, and Senior Fellow and Advisor at Fred Rogers Center, as well as editor of *Family Engagement in the Digital Age: Early Childhood Educators as Media Mentors* and *Technology and Digital Media in the Early Years: Tools for Teaching and Learning*.

Kathleen is both a Music Therapist and Speech Language Pathologist, Professor at Berklee School of Music, TEDx presenter “*How music can heal our brain and heart*”, and passionate advocate for the power of music to empower and transform individuals and groups in meaningful ways, specializing in using neuroscience as the lens through which to view and validate music based practices.

Marketing, Outreach and Social Media



Courtney Pitman, **Brenna Redpath**, and **Monique Tranchina**, three talented, energetic women, joined our marketing team.

Courtney, who has a background in online edtech training, performed many interviews of parent and professional SS4Kids users, and created a solid “bible” of text and images for general branding and marketing purposes.

Brenna, who is a parent of a special needs child and ran her own company to provide services for home and charter schools, coordinated the outreach to various health and educational sectors, and began developing iQsonics Community of Practice with parents and teacher/clinicians.

Monique has a pulse on Social Media and stretched iQsonics footprint into Facebook, Twitter, Instagram and LinkedIn, developing plans for campaigns, blogs and connecting with dedicated influencers in our domains of education, health, early childhood and special needs.

Finance and Accounting



Amanda Kelley and Najet Zeidan gave our business a very important fiscal support system.

Amanda took the reins on iQsonics bookkeeping and financial planning/projections, based on her strong background of 10 years in the Los Angeles Parks Foundation fund raising, event planning and managing many millions of dollars in revenue and expenditures.

Najet, accounting expert, advised our team on securing a Small Business Administration Emergency Injury Disaster Loan that is sustaining the company through the pre-commercial launch period.

Technology and Engineering



As our hardworking IT team of Joanne Manzella, Chakrit Prasatwattana and Anthony Salgado transitioned from the IES research study to other work arenas, **Rob Arbittier** and **Michael Knueppel** joined iQsonics to prepare SS4Kids for a successful commercial launch and develop advanced features.

Rob has an extraordinary background in both the IT and music world, having invented the first music composition software for the blind with Stevie Wonder and played keyboard in over 500 shows with him. He holds several IT patents, worked with the largest film and music production companies in the world and is a serial entrepreneur in the gaming sector. Attracted by the great potential of SS4Kids to benefit so many children and families, he joined iQsonics as a C-level advisor to help guide our tech R&D and business strategies.

Michael has IT experience with large companies, Amazon and Hallmark, coming onboard to help prepare SS4Kids to scale up for supporting many more users and implement several new features including the upcoming payment portal.

IQSONICS LEGAL AND FINANCE

Intellectual Property Protection



FOUNDATIONLAW
Helping Build Your Business



To protect the IP of the company from marketplace competitors with education and health related technologies, and invest in the potential licensing opportunities to third parties that could value our assets in the future, iQsonics filed for a **Provisional Patent** of the design invention of Sing and Speak 4 Kids with patent attorney JD Harriman of Foundation Law Group LLP. In addition, a **U.S. Copyright** was filed for the music composition and performance, and the computer code for the SS4Kids program.

Small Business Administration Loan



U.S. Small Business
Administration

Based on 2019 revenues, iQsonics qualified and received an **Economic Injury Disaster Loan (EIDL)** from SBA. This will help bridge company expenditures to other anticipated income streams in 2021.