



Research Summary

Over 22 significant studies have been completed with BrainWare SAFARI with various groups, including the general population, students from Low Socio-Economic Status (Low SES), Special Education (individuals with learning disabilities), English Language Learners (ELL), children with ADHD, children with an autism spectrum diagnosis (ASD), low-functioning students, and adults in a workforce setting. Detailed reports of the research summarized below are available at www.MyBrainWare.com/research.

Proof of Concept	Study	Year	Study Information	Findings
General Population	"A Study of the Effectiveness of Cognitive Skill Development Delivered in a Video-Game Format," Optometry & Vision Development, Vol 38, No 1, 2007	2005	<ul style="list-style-type: none"> • M & F, 1st-7th grades • Woodcock Johnson III. • BWS vs. Control • 45-60 minutes, 3-5 times per week, 12 weeks 	<ul style="list-style-type: none"> • 4 years 3 months cognitive growth vs. 4 months for the control group • 1 year 11 months academic growth vs. 1 month for the control
General Population	"BrainWare SAFARI at Harbor Beach Community Schools"	2009	<ul style="list-style-type: none"> • M & F, ages 7 to 15 • Woodcock Johnson III • 45 minutes, 4 times per week, 12 weeks 	<ul style="list-style-type: none"> • 3 years 1 month cognitive growth • Teacher-observed academic improvement
General Population	"Broad-Based Improvement of Cognitive Ability"	2008-2010	<ul style="list-style-type: none"> • M & F, 2nd grade • CogAT • 30 minutes, 2-3 times per week, 17 weeks 	<ul style="list-style-type: none"> • 12 percentile point gain on composite score
General Population	"BrainWare SAFARI as Part of the 3 rd Grade Curriculum at Pope John Paul II"	2010	<ul style="list-style-type: none"> • M & F, 3rd grade • CogAT • 45 minutes, 3 times per week, 17 weeks 	<ul style="list-style-type: none"> • 14 percentile point gain on composite score

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Special Education	“Effect of Neuroscience-Based Cognitive Skill Training on Growth of Cognitive Deficits ... Students with Learning Disabilities”, Learning Disabilities: A multidisciplinary journal, Vol 18 (3), 2012	2011	<ul style="list-style-type: none"> • M & F, 2nd – 4th grades • Students identified with Specific Learning Disabilities • Woodcock Johnson III. • BW Safari vs. Control • 30-45 minutes, 3-5 times per week, 12 weeks 	<ul style="list-style-type: none"> • 2.8 years cognitive growth vs. 2 months for the control group • Improved from 64% to 89% cognitive proficiency (90% is expected level for normally developing).
Special Education	“Strengthening Cognitive Processes in Students with Resource Plans”	2012	<ul style="list-style-type: none"> • M & F, 3rd & 4th grades • Woodcock Johnson III 3 tests • 30 minutes, 2-3 times per week, 10 weeks 	<ul style="list-style-type: none"> • 3 years 1 month cognitive growth • Teacher-observed academic improvement
Special Education	“Oakwood School Increases Academic Ability Using BrainWare SAFARI”	2012	<ul style="list-style-type: none"> • M & F, 6th & 7th grades • Woodcock Johnson III Academic Tests • 30 minutes, 3 times per week, 15 weeks 	<ul style="list-style-type: none"> • 1 year 9 months improvement on academic measures
Special Education	“Case Study – Two Special Needs Students”	2008	<ul style="list-style-type: none"> • Two male students, aged 9 and 12 • Plateaued in reading remediation program • Woodcock Johnson III • 30-60 minutes, 3 to 5 times per week, 12 weeks 	<ul style="list-style-type: none"> • 5 years 4 months and 2 years 2 months cognitive growth
Special Education	“Transfer Effects on the Visual Spatial Working Memory of Students with Reading Problems”, AWERProcedia Information Technology & Computer Science. [Online]. 2013, 04, pp. 1046-1052	2012	<ul style="list-style-type: none"> • M & F, Ages 7-12 • NAMA subtests, Block Recall Test • BWS vs. Control • 50 minutes, 5 times per week, 6 weeks 	<ul style="list-style-type: none"> • Significant difference between BWS and Control on all Working Memory Tests

Proof of Concept	Study	Year	Study Information	Findings
Low SES (Socio-Economic Status)	“BrainWare SAFARI Benefits 4th and 5th Grade Boys At Risk”	2006	<ul style="list-style-type: none"> • M, 4th & 5th Grades • Woodcock Johnson III • 2-3 hours per week, 11 weeks 	<ul style="list-style-type: none"> • 6 years improvement in cognitive ability • Moved from 3 years behind physical age to 3 years ahead
Low SES	“Impact of BrainWare SAFARI on Progress in Reading	2008	<ul style="list-style-type: none"> • M & F, 4th-8th Grades • DIBELS Oral Reading Fluency • 30 minutes, 3 to 5 times per week, 12 weeks 	<ul style="list-style-type: none"> • Only 4th Girls implemented the program and were the only class to meet benchmark reading
Low SES	“BrainWare at Glenwood School for Boys & Girls”	2009	<ul style="list-style-type: none"> • M & F, 2nd-8th Grades • Woodcock Johnson III • 30 minutes, 3 to 5 times per week, 8 weeks 	<ul style="list-style-type: none"> • Cognitive improvements ranged from 1.5 to 3.0 grade equivalents (GE) • Academic improvements ranged from 0.5 to 2.9 GE
Low SES	“Pilot of BrainWare SAFARI in a Title I School – Ross Elementary, Topeka, KS”	2010	<ul style="list-style-type: none"> • M & F, 3rd-5th Grades • WCJIII 3 tests, KS State Tests\ • 30-45 minutes, 4 times per week, 11 weeks 	<ul style="list-style-type: none"> • 1 year 10 months gain on 3 cognitive tests. Additional 1 year 5 months gain 6 months later • Avg reading score increased from 56% prior year to 69% • Avg math scores increased from 26% prior year to 72%
Low SES	“BrainWare SAFARI Delivered in an Afterschool Program – Maywood Elementary, Hammond, IN”	2012	<ul style="list-style-type: none"> • M & F, 2nd-5th Grades • CogAT • 45 minutes, 4 days per week, 10 weeks 	<ul style="list-style-type: none"> • 12 percentile point improvement on composite score
Low SES	“Evaluation of Impact of BrainWare SAFARI Using Academic Growth Measures – Perez Elementary, Chicago, IL”	2012	<ul style="list-style-type: none"> • M & F, 2nd & 3rd Grades • NWEA MAP Reading, TRC Reading Levels • BWS vs. Control • 30 minutes, 3 times per week, 14 weeks 	<ul style="list-style-type: none"> • 3rd Grade reading gains twice that of control, twice target growth • 2nd Grade proportion of students at grade level increased from 1/3 to 2/3
ELL (English Language Learners)	“BrainWare SAFARI use with ELL Students (Chinese-speaking)”	2006	<ul style="list-style-type: none"> • M & F, ages 7-11 • Woodcock Johnson III. • 45 minutes, 4 times per week, 11 weeks 	<ul style="list-style-type: none"> • 3 years 6 months cognitive growth • 2 years 4 months academic growth

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ELL	“Bilingual Program Pilot with BrainWare SAFARI – Hammond, IN”	2010	<ul style="list-style-type: none"> • M & F, 6th-9th Grades • Behavioral Rating Scale, Scholastic Reading inventory 	<ul style="list-style-type: none"> • Broad cognitive gains • 50% more students raised their reading score than prior term
ELL	“Benefit of BrainWare SAFARI with Students at a Leading Private School in Argentina”	2013	<ul style="list-style-type: none"> • M & F, 4th grade • DAB-D in English • BWS vs. Control • 30 minutes, 3 times per week, 13 weeks 	<ul style="list-style-type: none"> • Significant gains vs. control in Mathematics: Reasoning, Reading Characteristics, Writing Contextual Language
ELL	“Benefit of BrainWare SAFARI in a High-Poverty District with Split English – ELL Students”	2013	<ul style="list-style-type: none"> • M & F, 3rd grade • California State Test • BWS vs. Control • 30 minutes, 3 times per week, 11 weeks 	<ul style="list-style-type: none"> • ELA Improvement 17 scaled score units better than control • Math Improvement 19 scaled score units better than control
ADHD	“Case Study: Family with ADHD”	2008	<ul style="list-style-type: none"> • M & F, ages 9, 10, 11 • Behavioral Rating Scale • 60 minutes, 3 times per week, 11 weeks 	<ul style="list-style-type: none"> • Cognitive improvements in attention skills, perceptual processing, life management skills, and self-esteem.
Autism	“Use of BrainWare SAFARI with Students with Autism Spectrum Diagnoses”	2008	<ul style="list-style-type: none"> • M & F, ages 5 to 16 • Range of diagnoses from severe to high-functioning • CARS Rating Scale, Behavioral Rating Scale • 30-60 minutes, 3 to 5 times per week, 12 weeks 	<ul style="list-style-type: none"> • Half of the students were able to persist in use of the program • Subjects aged 9+ and high-functioning showed the most benefit
Workforce Development	“Incorporation of BrainWare SAFARI in New Hires Program at Multi-National Corporation”	2011	<ul style="list-style-type: none"> • M & F, ages 24 to 48 • GAMA • 30 minutes 5 times per week, 5 weeks 	<ul style="list-style-type: none"> • Cognitive improvements in sequencing, analogies and construction • Improved completion rate in the program compared to other plants

Research on BrainWare SAFARI continues with 20+ additional studies in various stages of implementation and analysis. For information on conducting a study with BrainWare SAFARI cognitive skills development software, please contact Dr. Sara Sawtelle at: ssawtelle@MyBrainWare.com.