



BrainWare Safari (BWS) is designed to comprehensively develop the cognitive skills that are most important for learning. Several studies have been completed using BWS in different settings to demonstrate its effectiveness. The evidence thus far is compelling. It is expected that BrainWare Safari will provide the foundation for improved academic performance. However, further work needs to be completed in this area. LEC continues to sponsor additional research on BWS and to cooperate with independent researchers involved with cognitive-behavioral investigations.

Study Identifier	Subject Details	Measures	Results	Additional Info
CHA ¹ Phase I Spring 2005	<ul style="list-style-type: none"> 34 children divided into a control and study group (17 each) Worked at home with parents assistance as needed over 11 weeks 	Subset of Woodcock -Johnson Cognitive Battery Subset of Woodcock-Johnson Tests of Academic Achievement	<u>Study group</u> <ul style="list-style-type: none"> Avg. cognitive improvement = 4.3 years² Avg. Academic improvement = 1.11 years <u>Control Group</u> <ul style="list-style-type: none"> Avg. Cognitive improvement = 4 months Avg. Academic improvement = 1 month 	Published in Helms D, Sawtelle SM. <i>A study of the effectiveness of cognitive skills therapy delivered in a video-game format.</i> Optom Vis Dev 2007, 38(1):19-26. A similar study with 9 Asian students from Xilin Community Center ³ also showed similar results.
CHA Phase II Summer 2005	<ul style="list-style-type: none"> 11 children from the control group of phase I used BWS over 15 week summer and were re-tested Worked at home with parents assistance as needed in the summer 	Subset of Woodcock -Johnson Cognitive Battery Subset of Woodcock-Johnson Tests of Academic Achievement	<ul style="list-style-type: none"> Avg. cognitive improvement = 4.0 years Avg. Academic improvement = 1.1 years 	Published in Helms D, Sawtelle SM. <i>A study of the effectiveness of cognitive skills therapy delivered in a video-game format.</i> Optom Vis Dev 2007, 38(1):19-26.
Whitney Center ⁴ Case Study Spring 2006	<ul style="list-style-type: none"> Case 1: 12.4 year old testing at 7.5 years Case 2: 9.11 year old testing at 9.0 years. Two of the centers most challenged students 	Subset of Woodcock -Johnson Cognitive Battery	<ul style="list-style-type: none"> Case 1 improvement = 2.2 years Case 2 improvement = 5.4 years 	Case 1: Parent reports he is paying better attention to directions now and he can work at things for longer without giving up or getting frustrated. Case 2: Parent reports better decision-making, working at a more reasonable pace, and completing his school work both in class and at home much more quickly and confidently.

1. CHA is Christian Heritage Academy in Northfield Illinois

2. This notation is used throughout this document: 4.3 years means 4 years 3 months.

3. The subjects were students in the after-school program at the Xilin Community Center in Naperville, Illinois

4. Carolyn Gibb, owner and founder of The Whitney Center in Richmond, IN. The Whitney center is a tutoring center that specializes in reading remediation.



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Edgar Evans Academy ⁵ Spring 2006	<ul style="list-style-type: none"> • 28 4th and 5th grade boys with discipline problems. • Avg. chronological age = 11.0 years • Avg. cognitive age at pre-test = 8.2 years 	Subset of Woodcock -Johnson Cognitive Battery	<ul style="list-style-type: none"> • Avg. intellectual age post-test = 14.2 years • Avg. cognitive improvement = 6 .0 years 	<ul style="list-style-type: none"> • Every student in this study showed growth, with many showing multiple year growth. • Teachers recorded behavioral improvements – focus, self-esteem, cooperation, etc. • Publication planned.
CHA 1 year later September 2006	<ul style="list-style-type: none"> • All students from Phase I and Phase II were invited, 14 set appointments, and 5 were able to keep those appointments. 	Subset of Woodcock -Johnson Cognitive Battery	<ul style="list-style-type: none"> • All five sustained their intellectual growth • Three continued accelerated development. Two lost some of the gains but remained well above their age & baseline. 	<ul style="list-style-type: none"> • Unpublished results.
Autism Study ⁶ Winter 2006/Spring 2007	<ul style="list-style-type: none"> • 33 ASD children ages 5.5 to 16 	Behavioral Rating Scale and Autism Rating Scale (CARS)	<ul style="list-style-type: none"> • Increases in Sensorimotor Skills, Perceptual Processing Skills, Attention skills, Thinking, Life Management • Also increases in Relationships and Lower frustration 	<ul style="list-style-type: none"> • 52% completion of study rate among the participants -- not all ASD children will respond well. • Asperger's Syndrome and High Functioning Autism had highest success rate. • 9 years and up had the highest success rate. • Publication planned.
The Gap School ⁷ 2006-2007 school year	<ul style="list-style-type: none"> • 7 severely challenged students • IQ range 70 to 80 • Average age of 14 • Very low cognitive and academic ability 	Subsets of the Gibson Cognitive Battery and Detroit Tests of Learning Aptitude	<ul style="list-style-type: none"> • 9 months cognitive improvement on average • Typical interventions with these students results in either a decline or no improvement over the 8 month school year 	<ul style="list-style-type: none"> • Each of the 7 students exhibited at least one area of significant growth. • BrainWare was not easy for these students. • High numbers of attempts were needed to pass even the lowest levels. • Level of fun increased motivation so their level of frustration was moderated more than paper-based interventions.

5. Edgar Evans Academy, one of the schools within the Indianapolis Public Schools (IPS).

6. Study performed in conjunction with Carole Richards of North Coast Educational Services, Solan, OH. NCES is a center that specializes in helping children with learning disabilities like those with an ASD diagnosis.

7. This study was implemented/tested entirely by the staff at the Gap School in Sarasota Florida. For more information check out their website: <http://www.thegapschool.com>.