

BrainWare SAFARI as an Evidence-Based Intervention under ESSA

In September, 2016, the US Department of Education issued non-regulatory guidance under the Every Child Succeeds Act (ESSA) for selecting evidence-based interventions. The five steps in the process are outlined below, along with indications of how schools and districts can address and apply the requirements to an implementation of BrainWare SAFARI cognitive skills development software.

The Five Steps

1. Identify Local Needs
2. Select Relevant Evidence-Based Interventions
3. Plan for Implementation
4. Implement
5. Examine and Reflect

Step 1: Identify Local Needs

In this step, districts and school are asked to determine the stakeholders that can help identify local needs and their root causes. This step also includes comparing student outcomes to performance goals and identifying gaps and inequities.

The following are examples of local needs that might be identified where cognitive skills development might be considered:

- District/school serves significant numbers of students from low economic status and this population of students continues to lag the performance of more economically advantaged students and/or grade level expectations.
- Students in special education, particularly those with learning disabilities, perform substantially less well than the general population academically, and tend to make only incremental gains in reading and/or math rather than closing the gap to grade-level performance.
- The population of students with IEPs or other learning accommodations exceeds 10% of the total student population and/or has been rising.
- The cost to serve students receive special education services is a challenge for the school/district.
- The school/district's population of English Language Learners continues to lag the performance of English-speaking students and/or grade level expectations.
- Many ELL students do not achieve sufficient proficiency in English for English to be the primary language of instruction.
- Some or many students lack well-developed attention or executive functions which may impede their ability to reach their academic potential.
- There are disparities in the proportion of various demographic backgrounds qualifying for gifted programs.
- There is a need to support all students' development of learning skills to enable each student to optimize his or her potential and readiness for career and college after high-school graduation.

These are not the only needs that might lead to consideration of a cognitive skills development intervention. The needs presented here are intended to illustrate the types of populations, gaps and needs where a cognitive skills development would most likely be relevant.

Step 2: Select Relevant, Evidence-Based Interventions

In this step, schools and districts are asked to examine the evidence base for a proposed intervention. Various levels of evidence are described with the idea that schools will continue to build and strengthen the evidence base over time.

Over 30 studies, both peer-reviewed, published research and field studies, have been completed with BrainWare SAFARI. Documents which summarize the nature of the evidence have been developed for four population groups:

Students with Learning Disabilities
Economically Disadvantaged Students
English Language Learners
General Population

While all of the studies that have been completed are available on the company's website (www.mybrainware.com/safari/research), the four summaries are intended to help schools and districts assess the most relevant evidence for use with each of these populations.

Districts must also address other key questions at Step 2. These questions along with some basic information common to BrainWare SAFARI implementations is provided in the following table.

Question	General Considerations
How can the success of the intervention be measured?	Schools typically use one or more of the following types of instruments to measure the impact of using BrainWare SAFARI with students. • Academic tests (existing formative and/or summative tests, including state standardized tests) • Cognitive tests, such as the CogAT, CAS, Woodcock-Johnson III Cognitive Battery, Mindprint Cognitive Assessment • Behavioral Rating Scales completed by teachers and/or parents rating students on behaviors indicative of cognitive development • Qualitative feedback from teachers and students on observed improvements in attention, memory, academic performance, and the like. BrainWare Company staff are available to consult with schools/districts on the choice of appropriate assessments in the context of potential planned implementations.
What resources will be required to implement this intervention?	The basic technology requirements for BrainWare SAFARI include: • Computers (PC or Mac) • Internet Connection

	• Mouse and headsets recommended The staff needed to implement the intervention depend on where and how the program is implemented. Some of the most common options include: • In the classroom, with the classroom teacher serving as the students' "coach" • In a computer lab with a teacher, aide or parent serving as the students' "coach" • In an afterschool program with appropriate staff or volunteers serving as the students' "coach" • In a resource room setting or other "pull-out" environment with a resource teacher or learning specialist serving as the students' "coach" The role of the teacher/staff with BrainWare SAFARI to serve as a coach, rather than an instructor. These skills can generally be trained in 60-90 minutes of online training, provided with most purchases of student licenses to use the program. The standard protocol for using the program to achieve the kinds of results shown in the research is: • 3 to 5 times per week • 30 to 60 minutes per session • 10-14 weeks
Is there buy-in for the intervention?	In many cases, administrators, teachers and parents are not already fully aware of the nature and potential impact of cognitive skills development using BrainWare SAFARI. The company routinely conducts educational webinars for stakeholders to learn about cognitive skills and the program.
How will this intervention be sustained over time?	BrainWare SAFARI is frequently implemented as a one-time intervention. That is, once a student has completed about 12 weeks of using the program, significant gains have been achieved that provide the basis for accelerated academic gains. Therefore, the program can be cost-effectively implemented within a grade level (often 3 rd grade) or for a population of students (RTI, Special Ed, ELL, etc.).
Will the potential impact of this intervention justify the costs?	BrainWare SAFARI was developed based on cognitive therapy techniques used in a clinical setting for over 40 years. Individual clinician-delivered cognitive therapy is expensive and is typically limited to students with unusually great needs. We are not aware of any other approach, tool or program that has the same or similar impact in such a short period of time for the same or similar cost. One district that implemented BrainWare SAFARI district-wide was able to reduce the cost of special education services by 50% as the population of students identified as Special Ed decreased from 18% to 5%. This allowed the district to focus its resources on students with the greatest need.

Step 3: Plan for Implementation

BrainWare Company staff have significant experience in supporting schools and districts in implementing BrainWare SAFARI to achieve relevant outcomes. The key aspects of a BrainWare SAFARI Implementation plan include:

1. Determination of parameters and conditions of the study, if a study is involved in the implementation:
 - a. How many students? Which students?
 - b. Control/comparison group, if applicable.
 - c. Determination of activities of control/comparison group (if applicable) – will there be a comparison to another intervention, standard instruction or something else?
 - d. Choice of assessments for pre- and post-testing.
 - e. Determination of timing of assessments (simple pre/post, or additional later testing to assess maintenance of gains).
 - f. Is informed consent required (sometimes relevant depending on the assessment)?
2. Administration of assessments and data collection.
 - a. The schedule and responsibility for administering assessments (and securing consent forms, if applicable) should be planned, as well as for collecting and assuring the security of student scores.
3. BrainWare SAFARI Schedule
 - a. For each class or individual student, as the case may be, BrainWare SAFARI use should be scheduled 3 to 5 times per week for 14 weeks. Each session should be 30 to 45 minutes. Scheduling two 20-minute sessions in a single day may be considered as an alternative but those two sessions together count as a single 30-45 minute session.
 - b. The first session should not be scheduled until after the pre-testing. The last session should be scheduled before the post-testing.
 - c. The teachers and/or BWS supervisor need to be actively engaged with the students during the time students are using BWS (as discussed in purposeful coaching below).
4. BrainWare SAFARI Installation and Set-Up
 - a. At this time, BrainWare SAFARI must be installed on the local computers and uses an Internet connection when students are using the program. Installation of the program on computers so that students have access to it needs to be scheduled in advance.
 - b. Each classroom teacher whose students are using BrainWare SAFARI and any other staff serving as coaches will receive a personal login for BrainWare SAFARI. This is set up by The BrainWare Company.
 - c. Each school will receive access to the BrainWare Account Administration Portal. One person at each school will need to be designated as the Account Administrator. The BrainWare Account Administrator will receive training on the Account Set up and management. This can be included in the training session for the teachers or can be a separate session, if it is not one of the teachers using the Program.
5. BrainWare SAFARI Training for Teachers/Coaches
 - a. A date and time for training should be established at least 3-4 weeks in advance of the desired date and time, if live online training is to be provided. A 60 to 90 minute time period should be set aside for this training.

- b. The BrainWare Company also provides access to an online training modules and materials that are available 24/7 to district/school staff.
 - c. During the training, specific techniques for success will be discussed. The concepts described in purposeful coaching, use of the reporting features, and managing student accounts are included in this training. In addition, the teachers will see a brief demonstration of the program in the context of successfully using it with their student.
 - d. The training session may be recorded and archived for later viewing, as review for attendees or for staff unable to attend the initial training.
- 6. Presenting – How the program is introduced to the students, their parents and other stakeholders is important for successful implementation. There are four considerations for presenting.
 - a. Teachers and Other Stakeholders. Prior to a commitment to implement BrainWare SAFARI, the primary stakeholders at each district/school should see a 45-60 minute demonstration of BrainWare SAFARI in person or via an online meeting/webinar. The stakeholders include any of the school community that need to buy in to the project for success. Meeting/demonstration times are arranged at a mutually agreed time. Optimally, a demonstration is scheduled at a time when all stakeholders for a school can see the program at the same time and ask any questions that they may want to have answered.
 - b. Parents. Parent communications should be included in the implementation plan. Sample parent communications and presentations are available for use by district/school staff. It may be possible for company staff to participate in a parent presentation.
 - c. Students. Training for teachers and staff includes suggestions of how they can introduce the program and its purpose to the students. This helps the teachers be able to explain it and does not rely on them needing to understand what may be a totally new concept for them.
- 7. Performance Monitoring.
 - a. BrainWare SAFARI collects data on student progress in the program. Responsibility for periodic review of this data should be determined along with the plan for regular communication to stakeholders regarding compliance with the planned protocol for use.
 - b. The BrainWare Company can assist in progress monitoring and communication.
- 8. Analysis and Evaluation
 - a. Responsibilities for analysis and evaluation and reporting should be planned in advance.

Step 4: Implement

The BrainWare Company supports schools and teachers throughout the implementation phase. Most potential issues will have been addressed in the planning phase (Step 3), but consideration always has to be given to the unexpected and unplanned. Our support throughout Step 4 addresses issues that cannot be anticipated in the planning phase.

- 1. Customer Service via phone or email is available to handle any on-the-spot questions from how to help a student with a particular exercise or level to how to use the Account Administration Portal.
- 2. As appropriate given the nature of the implementation staff from The BrainWare Company will be connecting with the program coordinator several times throughout the implementation to make sure that anything that is causing a barrier or is not understood

completely is addressed. The goal of periodic check-ins is to make sure that if there is any need for support the teachers and students get it when they need it not after they are totally overwhelmed.

Step 5: Examine and Reflect

This is the stage at which the school/district will analyze, evaluate and report on the success of the program and its impact. The BrainWare team has extensive experience in data analysis and program evaluation and can help provide analytical and reporting support for the key questions that schools/districts will need to address at this step, including:

- Were the goals of the implementation met?
- What does an analysis of the performance metrics and monitoring indicate about the impact of the program?
- What feedback is available regarding students' and educators' experience with the program?
- What learning can help support improvement in future implementations of the program?
- How can knowledge about the implementation and its results be shared with stakeholders?
- How can knowledge about the implementation and its results be shared with individuals and groups outside the school/district?
- What experiences have others had with this intervention and what can be gleaned from that that will help with future implementations?
- What plan is appropriate for the next cycle, including continuing, modifying or discontinuing the program?

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