BRAIN POWER
Provider

User Manual

(with Trainer Orientation Guide)

Brain Power Direct, Inc.

www.TrainMyBrain.com

Rev 1.7

Welcome!

We are excited to welcome you to the Brain Power® Provider team. This User Manual will guide you through the use of the Brain Power® Website and the Brain Power® Cognitive Skills Training Program. It is recommended that you review it thoroughly so that you understand all of the functions that are available. If you have any problems, please contact Customer Service (559-408-5804 or customerservice@TrainMyBrain.com).

Note: *If you are a Support Trainer working with a current Brain Power® Provider, you may skip to "Trainer Orientation" (page 19).*

Introduction

The Brain Power® Cognitive Skills Training Program was designed to be administered by professionals in the fields of neuropsychology, brain injury rehabilitation, speech pathology, and education. Professional Administration is available through a growing network of Brain Power® Providers, and when no Providers are available locally, with Brain Power Direct (working with the Home User remotely). Home Users are encouraged to utilize professional administration in order to achieve maximum benefit, and be able to comply with the Brain Power® treatment protocols and our Performance Guarantee. Although Brain Power® is capable of producing effective results without professional administration, Home Users will be happy they received professional pre-treatment testing, assessment, treatment planning, oversight, coaching, as well as post-treatment testing and assessment.

While the Brain Power® program provides effective and affordable "home based" treatment for Brain Injuries or Learning/Developmental Disorders, some Home Users may be looking to self-administer the program for general cognitive enhancement. This is a perfectly acceptable use of the Brain Power® program, but care should be taken to follow the Brain Power protocols in order to achieve maximum benefit. Neurological development is dependent on the proper frequency, intensity, and duration of treatment. If either are compromised, it should be expected that the results will be compromised as well. Contact Customer Service with any questions - 559-408-5804.

Brain Power® Website Administration: *www.TrainMyBrain.com*

I. Getting Started

A. Provider Registration

The first step is to register as a Brain Power® Professional Provider or Home User. Just go to www.trainmybrain.com and select the Registration tab and choose "Professional" (or "Home User"). It is a very short process and only takes a few minutes.

Professional Provider Registration Form should only be filled out by the person who will be the Organization Administrator and have overall responsibility for the account.

1. **Registration Information**
   First, choose a User Name and password. The password will be used along with your e-mail address to login to the Brain Power® program as well as the website at www.trainmybrain.com.

2. **Organization Information**

Enter information on the practitioner or facility that is setting up the account. Basic information includes Name, Address, Phone, and Type of Organization.

3. **Primary Contact**
   Enter information of the person setting up this account. It can be changed at any time.

4. **Additional Information**
   Enter any other relevant information regarding you, your organization or your account that would be important to know.

5. **Terms of Use**
   Please review the "Terms of Use" and check the box indicating your acceptance of these terms in order to complete the application, and then press the Save button. The information will be transmitted to the Brain Power® office for review and acceptance. You should receive an e-mail within 24 hours from your personal Customer Service Representative verifying that your account is active along with a standing offer to help you in anyway we can.

The "Home User" Registration Form is used by individuals who are registering independently, prior to locating (or desiring to work without) a Brain Power® Provider. Home Users are encouraged to work with a Brain Power® Provider, but self administration is possible when local Providers are not available. The registration format is a simplified version of the Professional Provider registration detailed above.

With your password, you will be able to run the demonstration version of the Brain Power® Program for a period of 15 days. This is to allow you time to complete the Trainer Orientation and attest to its completion.

B. **Program Download, Installation and Updates** *(Free to all Users)*

1. **Initial Installation**

   - Go to the "Getting Started" tab and choose "Program Download" to download the Brain Power® Program. You may use your computer while the program download is progressing. Once completed, you may install the Brain Power® Program.

   - Initially, the program will run in Demonstration Mode for 15 days which will allow you to try the different levels of each of the training modules and see how the program works. It will also give you time to complete the Trainer Orientation (page 19) authorizing you to begin training patients.

Note:

- *For large facilities that utilize computer networks, you may need to consult with the person in charge of maintaining the network to install the Brain Power® Program properly.*

- *If you have trouble starting the program after it is installed, you should check to make sure that the Brain Power® Program is categorized as a "trusted application" by any virus scanning software or security suite you are running.*

2. **Installing Updates**

Being committed to innovation, there will be periodic updates to the Brain Power® Program. You will be notified when there is a new version to Download and Install. Before installing a new version you must uninstall the old version so that all old files are deleted and do not conflict with the new version. All administrative and patient data will remain on the Brain Power® server for you to access with your updated version of Brain Power®.

C. **Trainer Orientation**

Any User on your account that is going to provide training, including yourself, must complete the Trainer Orientation included within this manual (also downloadable under "Reference Materials" at www.TrainMyBrain.com) in order to be certified and have the User ID required to provide patient training. This is a very important requirement and helps to assure that anyone providing training to another person actually possesses an understanding of the Brain Power® Program, the training process, as well as adequate processing abilities themselves to provide training. Learning disabilities (processing disorders) are very hereditary. If a patient is being trained by a family member with a processing disorder, they will likely have difficulty providing the training. It would literally be "the blind leading the blind." Once the Trainer has reviewed all of the material, and demonstrated proficiency of specific basic skills, they can check off the affirmation at the bottom of the Trainer Orientation page at www.TrainMyBrain.com and their User ID will be activated for patient training. Trainers may go back and review this orientation at any time. The Trainer Orientation should be completed during the 15 day trial period when the program is operating in Demonstration Mode, so that they can freely move around the program and practice the various tasks.

Note: You should not attempt to provide training while the program is operating in Demonstration Mode as none of the training data will be stored in the database and you will have to start over. This should be pointed out to all Support Trainers.

II. Administration Pages

A. **Edit Profile**

1. **Account Information**
   You can edit your account information at any time. You can also set the "***Session Threshold Value***" which indicates when you will receive a warning that you are running low on session credits and need to add more to your account. For Support Trainers, the default is 20 sessions and cannot be modified.

2. **Add and Edit Organization Contacts**
   Here is where you can add or edit Users (OrgAdmin, Staff, Trainers and Support Trainers) that will be providing training or administration support under your account. Click the "**Add**" button and you can add a User which is discussed in detail under *Edit Users (Section II D)*.

   Click on an e-mail address and you can edit the contact/user information of the Users under your Organization.

   ☑ Is Supervisor:
   You can designate a User as a Supervisor which allows that individual to monitor the training activities of other Users that the Supervisor is assigned

to. This allows you to delegate this administrative function to other staff members. *Do not assign the Supervisor designation to a Support Trainer.*

☑ Certified:
You can manually change a user's status to Certified if they did not check off the Attestation at the bottom of the Trainer Orientation before their temporary (15 day) trial account runs out. This will reactivate their account, but their Brain Power® program will now function in Training Mode rather than Demonstration Mode.

☑ Active/Inactive:
You can also make a user "Inactive." This would apply to staff that have left your Organization or Support Trainers that have completed training a patient.

Note: *You cannot delete a user that has any training activity associated with the account.*

B. **Training Sessions**

1. **Training Session Report:**
This screen allows Organization Administrators to run a report that allows you to see the dates and training activities for individual trainers, individual patients, or for the whole organization within a specified date range. This Session and Purchase Utilization Report can help you track work productivity of staff trainers or the dates of treatment for a patient within a specified date range. The report can be downloaded in PDF or Excel formats.

2. **Buy Credits:**
By clicking the "**Buy Credits**" button you will be redirected to PayPal where you can purchase one hour training credits. You can use your PayPal account or use a credit/debit card to make this transaction. If you do not have a PayPal account, you can set one up at that time. After the purchase, you will be redirected back to the Brain Power® website. Note that training session credits can also be paid for directly by the patient/support trainer as described below.

C. **Patients**

1. **Add Patients:**
By clicking on the "Add" button, you can add a new patient. It is important that the "*Patient User Name*" is not the patient's real name so as to maintain patient confidentiality and comply with HIPAA requirements. You can create any unique user name, but for organizations that will have large number of patients, we would suggest creating a name that would be easy to identify in a patient database search. This may be a medical record or account number or a combination of the patient's first name, initial of the last name and medical record number. Use a user name that would be easy to lookup/identify from a large patient list. Enter as much of the additional information as possible and select a Trainer and Support Trainer (if applicable). Note that date formats are mm/dd/yyyy.

There is the option for "**Direct Pay by Support Trainer**" which should be checked if the Patient (with Support Trainer) is going to pay for the training session credits directly online through Brain Power Direct.

Click "Save" and you will proceed through a series of screens to gather past and current medical history, psychiatric history, developmental history and medications. You will then have the opportunity to input test data from any cognitive testing that

has been performed. Inputting the patient's test results is critically important if you want to later generate individual and group statistical reports. This information is also very important for the purposes of research and program development. *We strongly encourage you to take the time to acquire and input as much detailed information as possible.*

a. Psychiatric History
Enter any information about past and current substance abuse and psychiatric history.

b. Medical History
This represents the most detailed of the history sections. Here you can input information about any past or current injuries, illnesses or conditions. Some of the information may only be acquired by reviewing the patient's medical records. This data could prove critical for understanding how cognitive skills training promotes improvement in various disorders. Note: If you do not know the exact date that an injury, illness, or condition occurred, you may enter just the year.

c. Developmental History
Enter any information about any developmental or learning disorders the individual suffers from.

d. Medications
Enter any medications that the patient is currently taking. This information should be updated if any changes occur during the course of treatment as this may have an influence on the patient's response to treatment. This is another area that is a focus of research by Brain Power®.

e. Test Results
Please input the results of any tests that have been administered in the past or currently. If you do not see the name of a test that was administered, please contact Brain Power® Support and we will put that test in the database immediately. To facilitate this, we would appreciate it if you would fax us a copy of the score summary page of the test protocol to work from as some tests are sometimes difficult to find. We would ask that you provide raw scores as well as a standardized score (i.e. scaled score). The program will automatically convert the standardized score you entered into the other scales (i.e. T-Score, Standard Score, Percentile). For those tests that have Age Scores, they will need to be entered manually.

2. **Patient Search:**
From this screen you can perform a search for a current or past patient utilizing a variety of filters. If you click on a specific patient it will take you to the "Patient Maintenance" screen for that patient.

3. **Patient Maintenance:**

a. Testing
From this screen you can add test data for a patient. If you do not find a test you are looking for, please contact Brain Power® Support immediately and we will set it up immediately.

b. Psychiatric History
You may modify or update the patient's psychiatric history from this page.

c. Medications
You may modify or add medications from this page.

d. Medical History
You may modify or add information about the patient's past or current medical history.

e. Training
The "Training" button allows you to run a report on the training that has been done for a patient as well as download the data as a .csv file that is compatible with Excel or SPSS (a research statistics program).

f. Discharge
Press the "Discharge" button after a patient is finished with treatment, all post-training test data has been entered and all treatment reports have been run. A patient can be reactivated at any time if they return for more treatment.

g. Direct Pay by Support Trainer
Check this box if the Patient/Support Trainer will be purchasing the one hour training credits rather than the User Organization. If some or all of the training is performed at the Organization's office, the Support Trainer's account will be charged for the training session. This allows the Organization to pass through the cost of the one hour training sessions directly to the patient.

h. Modules
By clicking on the "Modules" button you can specify which training modules a Support Trainer can have access to for training. This gives you complete control over the treatment that occurs. If the User Organization is paying for the one hour training credits, there is a calendar which allows you to specify either the date range or specific days that the Support Trainer is allowed to perform training. In this situation, the support trainer may not do more than one hour of training on the days that they allowed to do training. This prevents any excessive use of the Organizations training credits.

D. **Edit Users**

From this screen you can add new Users to your organization or edit the information pertaining to existing Users. You can also deactivate a User which can be reactivated later if needed.

Following are the available User classifications:

Organization Administrator:

- An Organization can have more than one "Org Admin". An Org Admin has full access to all of the functional components of the website.
- Org Admin can edit his/her own profile, can create/edit/delete a user, and assign a classification (Account Type) to the user.
- Org Admin can create a Patient and maintain the Patient's history (Psychiatric History, Medications and Medical History).
- Org Admin can track the Training sessions of a patient.

- Org Admin can add necessary Standardized Tests to a Patient and can generate Pre-Treatment and Post-Treatment test reports.

- Org Admin can generate Training Session Reports, Purchase Sessions Reports and Group Statistical Reports.

- Org Admin can provide training to a Patient.

- Org Admin is the only account type that can purchase one hour training credits.

Staff:

- An Organization can have more than one "Staff". This is intended to be a clerical position.

- Staff cannot provide training to a patient.

- Staff can create/edit/delete a user, and assign a classification (Account Type) to the user.

- Staff can create a Patient and maintain the history (Psychiatric History, Medications and Medical History) of Patient.

- Staff can track the Training sessions of a patient.

- Staff can add necessary Standardized Tests to a Patient and can generate Pre-Treatment and Post-Treatment test reports.

- Staff can generate Group Statistical Reports.

Trainer:

- Trainers can view and train Patients that have been assigned to them.

- Trainers can create a Patient and maintain the Patient's history (Psychiatric History, Medications and Medical History).

- Trainers can generate Group Statistical Reports.

- Trainers can view "Patient Training Sessions" associated with patient.

- Trainers can assign a Support Trainer and the training modules that the Support Trainer will have access to for training.

- Trainers can be designated as a "**Supervisor**" of other Trainers. This allows the Supervising Trainer to have access to all of the functionality described above and monitor the treatment provided to the Patient's of the Trainers under their supervision.

Support Trainer:

- Support Trainers can purchase one hour training credits if Direct Pay has been assigned to the Support Trainer.

- Support Trainers cannot view or edit Patient accounts.

- Support Trainers cannot create a Patient account.
- Support Trainers cannot assign themselves to a Patient. Only the Org Admin and Trainer can assign Support Trainer to a Patient.
- Support Trainer cannot remove his/her association from a Patient but the Org Admin and Trainer can remove Support Trainer association from a Patient.
- Support Trainers can only be associated with one Patient at a time and a Patient can only have one Support Trainer.

NOTE FOR PROVIDERS: It is important that all Users (including Support Trainers) that you add to your organization, be registered by the organization administrator through the "Edit Users" screen. They should not register independently through the Brain Power website, as this would create a separate account and cause confusion.

E. **Group Statistics**

From this screen you can run group statistical analysis reports, filtering the data using multiple parameters, so that you can evaluate treatment outcomes.

III. My Info

This screen allows you to edit your personal information, establish your personal security question in case you forget your password, and change your password.

IV. Reference Materials

This screen contains a list of important reference materials that are available for your use. You should review these thoroughly.

V. Support

From the "Support" tab you can access support information from three different venues. First, you can access our Frequently Asked Questions (FAQ's) Library, second you can access our Video Tutorial Library, and third you can Contact Us directly with your questions or comments. You can save considerable time by exploring the resources linked from this page.

We also hope that you will support us by providing valuable feedback. We are constantly evaluating and updating the Brain Power® Program. We welcome and encourage you to provide feedback to us about any problems that you encounter while running the program, suggested program modifications that may make the program more user friendly or clinically effective, and any tips or tricks that you would like to share with other program users for adapting to difficult or unusual treatment situations.

VI. Tutorials

The "Tutorials" tab takes you directly to the Video Tutorial Library. You will find that these tutorial videos are the most user-friendly method for completing your Brain Power orientation. We have attempted to include all the relevant information contained in this User Manual in these videos. They also provide subtle insights that cannot be included in this manual.

Patient Management - An Overview

For a new Brain Power® Provider or Home User, the process of setting up a new Patient is actually quite simple.

The following is a list of steps to follow when setting up a new Patient;

A. **Set-up Support Trainer**: (if applicable)

1. Go to "Edit Users" and add the Support Trainer that will be working with the new Patient.

2. Tell the Support Trainer that they will use their first name as a temporary default password. They can then use their password to log in at www.TrainMyBrain.com, go to "My Info" and change their password to something that they can remember.

3. Make sure that the Support Trainer understands that they have 15 days to complete the Trainer Orientation and check the Affirmation at the bottom of the Trainer Orientation page at www.TrainMyBrain.com to activate their Trainer status. To save time, the Support Trainer should only focus on the parts of the Trainer Orientation that pertain to the areas of treatment that will be provided. There is really no reason for the Support Trainer to be familiar with the entire program.

B. **Set-up New Patient**:

1. Go to Patients and add the new patient as described on page 8. Be sure to assign a Trainer and the Support Trainer you created for this patient. Also go to Modules and input the treatment plan and the dates that the Support Trainer is allowed to provide training (unless you have checked Direct Pay by Support Trainer in which case this function is not present).

C. **Patient Management**:

1. To review the patient's treatment progress, start the Brain Power® Cognitive Skills Training Program and log into the patient's account with your User ID (which must be assigned to the patient as a trainer to access the patient file). You may then click on the Overview tab which will allow you to review the patient's progress in treatment without starting a training session.

2. You may also go to the Brain Power® Website and click on "Training Sessions" and run a report to see the specific dates of treatment for the patient to confirm that treatment is occurring on a daily basis.

3. You can also go to Patients, open the patient file, then click on Training, and you will see a report of each training module that was worked on for each date of training, the number attempts at each level, and whether the level was passed. You can modify this report in several ways, such as looking at the patient's performance on only one training module.

4. Once the patient has completed training, you can go to Patients, open the patient file, then click on Testing, and input the post-training cognitive test results. From that same page you can generate a Post-Treatment report that will compare the pre-treatment and post-treatment test results so that you can see the amount of improvement in response to treatment.

D. **Patient Discharge**:

1. When training is complete, you may "Discharge" the patient from the Patient Maintenance screen. The patient may be reactivated at any time if additional treatment is provided. You may also go to the "Edit User" screen and deactivate the Support Trainer's account. If the Support Trainer was Direct Pay and there are training credits remaining on their account, they should be directed to contact Customer Support to request a refund.

Patient Assessment

A. **Pre-Training and Post-Training Cognitive Assessments**

It is strongly recommended that testing be performed to objectively assess the patient's cognitive/processing skills prior to training in order to understand the individual's specific strengths and weaknesses. This is the only way to develop an appropriate treatment plan. If you are unable to provide this type of assessment within your facility, you should find a neuropsychologist or psychologist in your area that can provide the necessary testing.

A basic battery of tests can typically be administered and scored within two hours for individuals with Learning Disabilities. In this case, testing should cover visual and auditory processing, language processing and nonverbal reasoning. Go to the Reference Materials section of the Brain Power® Website, scroll down to "Patient Testing & Assessments" and open the document "Recommended Assessment" for an example of the tests which might be used. It is possible that such testing has already been performed at another facility or by the school district.

For individuals with Brain Injuries, a more comprehensive neuropsychological evaluation is recommended.

It is also recommended that the Cognitive Assessment be repeated at the conclusion of treatment in order to objectively demonstrate the improvement that the patient has received from the program.

Only by entering this post-treatment data will you be able to access valuable individual and group statistical reports which will allow you to assess treatment response. This information not only allows you to provide objective information demonstrating the effectiveness of the treatment you provide to individuals, but also specific to different diagnostic groups. Last, Brain Power® maintains a confidential global database from all of it's Users raw data which can confidentially be used for collaborative research purposes.

NOTE: More information on Treatment Planning is available on the "Reference Materials" page after logging in at www.trainmybrain.com. You can download instructions, treatment protocols, and sample treatment plans.

B. **Assessing and Treating Attention Problems**

We have consistently observed that untreated problems with Attention, Hyperactivity and Impulse Control will significantly compromise the Patient's ability to participate in, and benefit from treatment. Whether treatment is being provided for a Brain Injury or a Learning Disability, it is strongly recommended that the patient be screened for problems with attention and concentration. You will find the "Vanderbilt Rating Scales" and the "Adult Attention Disorder Checklist" under the Reference Materials tab (Patient Testing & Assessments) which will assist in screening for evidence of attention problems. If these checklists support

concerns that there are attention problems, then it is recommended that objective testing be performed by a qualified psychologist.

The recommended measures for this type of assessment are either the "Test of Variables of Attention (TOVA)" or the "IVA Continuous Performance Test". These two tests have the highest diagnostic accuracy and can be used for medication challenge testing in order to objectively adjust medication to the proper therapeutic level. Medication challenge testing avoids any potential for over-medicating a person. Too much medication will actually interfere with test performance on the IVA and the TOVA. You may contact the test manufacturers to find out if there is a psychologist in your area that uses one of these tests.

While some individuals/parents are not comfortable with the thought of treating attention problems with medication, this discomfort typically stems from misinformation propagated by the media. The medications for attention problems are very safe, if prescribed appropriately. The Reference Materials section of the website has a document titled "*Attention Disorder Information*" which explains the neurophysiology, diagnosis and treatment of attention disorders. This should be given to family members to review and should address most concerns and questions. Typically, Patients with Brain Injuries realize the same benefit from stimulant medication as do individuals with ADHD.

After Brain Power® Cognitive Skills Training has been completed, the Patient can then be reevaluated to determine if medication needs to be continued. In many cases, the Attention Disorder will have improved in response to treatment and the medication can either be reduced or discontinued altogether.

C. **Brain Power® Adaptive Functioning Scale and the Brain Power® Brain Injury Adaptive Functioning Scale**

We would also recommend that you have the patient and a family member rate the patient's functional abilities both before and after receiving treatment using the "*Brain Power Adaptive Functioning Inventory*" or the "*Brain Power Brain Injury Adaptive Functioning Inventory*" (for individuals being treated for a brain injury/disorder). Both scales can be downloaded from the Reference Materials page and the responses can be input in the Patient's test results.

D. **Long Term Follow-up**

The functional changes in academic achievement may not be fully appreciated immediately after treatment with the Brain Power® Program has been completed. Often, children will require academic tutoring after completing the Brain Power® Program in order to get their skills up to grade level. This should not pose a problem once the processing disorder that has been interfering with academic achievement has been treated. It is recommended that follow-up be performed one year after treatment and that updated academic achievement test data be acquired at that time. State achievement test scores prior treatment and one year post treatment can serve this purpose if it is not feasible to perform academic achievement testing at your facility. Also, parents should fill out the Brain Power® Adaptive Functioning Inventory at that time.

The same is true for individuals who have been treated for a Brain Injury. If the individual is a child, similar academic achievement test results should be obtained. In the case of both children and adults, the Brain Power Brain® Injury Adaptive Functioning Inventory should be filled out.

Treatment Planning

After an assessment of the Patient's cognitive abilities has been performed, a Treatment Plan can be developed to address the specific deficits that the patient is experiencing. We encourage you

to use the Brain Power® Treatment Plan form to identify which training modules would be most appropriate to use with each patient. Please go to the Reference Materials page, scroll down to "Treatment Planning" and download the PDF "Brain Power® Treatment Plan."

When reviewing the Brain Power® Treatment Plan, you will notice that certain training modules actually treat more than one functional domain. For example, although there are only two training modules listed under Language Processing, there are tasks listed under Visual Processing and Memory which should also be used to treat language processing problems. Also, it is important to note that the tasks listed under Phonemic Processing can also be used to help treat articulation problems.

NOTE: More information on Treatment Planning is available on the "Reference Materials" page after logging in at www.trainmybrain.com. You can download instructions, treatment protocols, and sample treatment plans.

Data Gathering

One of the unique and powerful features of the Brain Power® Program is that it is designed to gather extensive information for research and analysis. We strongly encourage you to provide as much information as possible about the patients you treat. The data that you contribute is available to you in the form of various individual and group reports based on a number of different available parameters.

Your contribution to the Brain Power® database will also be confidentially used to advance the understanding of how to treat various neurological and developmental disorders, as well as fight the normal effects of aging. This information is also used to evaluate the clinical effectiveness of the various components of this program so that appropriate modifications can be made to the program to increase its effectiveness.

Ultimately, we will make our entire database available to those who have an interest in collaborative research.

Trainer Orientation

Introduction

Brain Power® is a comprehensive Cognitive Skills Training Program that is designed to promote neuroplasticity and enhanced cognitive functioning in individuals with Brain Injuries, Learning/Developmental Disorders, or anyone who desires General Cognitive Enhancement. The Brain Power® Program is unique in many ways. First, one of the hallmark features of this program is the fact that the training modules are structured in a way that will drive skills to the point of being automatic. This has proven to be a critical component necessary to develop processing skills to a level of proficiency that will translate into meaningful functional changes in the real world. This is accomplished by either requiring the patient to perform the task "on beat" along with a metronome or progressively reducing the amount of time allowed to complete a task. This "driving technique", in combination with daily training, is what allows Brain Power® to produce significant changes in neurological brain function and cognitive ability.

Second, Brain Power® is the only cognitive skills training program that retains demographic data, pre-training and post-training cognitive test results, pre-training and post-training functional rating scale results, and performance data from every training session and for every person that is treated with this program. The data is kept in a secure centralized database maintained on the Brain Power® server. The database was created in order to confidentially allow for a powerful and detailed analysis of the effectiveness of each of the training modules in promoting improved brain functioning. Further, analysis of this data allows us to make modifications of the Brain Power® Program so that it will become progressively more effective. Last, it provides objective measures of treatment outcome which will serve to validate the efficacy of cognitive skills training in treating various disorders.

In order to provide effective treatment, it is critical that the Brain Power® Program be utilized in a standardized fashion. For this reason, this program was converted from a tabletop administration to a computer assisted administration in order to minimize variability in treatment delivery from one Trainer to the next. However, there are still aspects of the program which require direct intervention from a training facilitator (Trainer or Support Trainer). Therefore, it is important that prospective Trainers have an understanding of how this program is to be utilized and personally possess certain basic skills in order to effectively facilitate cognitive skills training for another person. *The Brain Power® Program is challenging but intuitive, and a caring family member or friend should have no difficulty using the program after completing the Trainer Orientation*.

A. Trainer Roles and Responsibilities:

1. Trainer

Trainer is the term used for the professional registered within the Provider's organization which may provide direct treatment to a Patient, as well as maintain responsibility for oversight and coordination of the treatment provided to a particular Patient by a Support Trainer. The Trainer should be the person that is available to guide the Support Trainer in the appropriate use and implementation of the Brain Power® Program. The Trainer will have the responsibility for

establishing the Treatment Plan and determine which parts of the Brain Power® Program the Support Trainer will have access to. The Trainer will also have responsibility for designating the dates or time period that the Support Trainer will be able to provide training.

2. Support Trainer

Support Trainer is the term used for the family member or friend that will be providing training off-site, presumably in the Patient's home. The Support Trainer should only need to become familiar with the parts of the Brain Power® Program that are included in the patient's treatment plan. There is no need for the Support Trainer to understand how to provide training utilizing parts of the program that are not going to be utilized with the patient. The Support Trainer should rely on the Trainer to answer any questions regarding which parts of the program they should become familiar with and the appropriate way to provide training with the Brain Power® Program.

If the Patient is responsible for purchasing training credits, the Support Trainer will have to facilitate this transaction by logging into the website and acquiring access to PayPal so that the patient can carry out this transaction.

Trainer Readiness

The following information will help you, the Trainer or the Support Trainer, to understand the recommended way treatment should be delivered, how each of the treatment modules works, and what you should be paying attention to as you provide treatment to your patients or family members. There are also certain skills that we strongly recommend you practice until you reach a level of proficiency that leaves you confident in your ability to provide appropriate training and feedback to those you are working with. Support Trainers only need to be concerned with the Trainer Readiness section of the Trainer Orientation.

In order to administer this program correctly, there are certain basic skills that you will have to possess. Please review all of the following material and practice the skills as directed. For some skills, we ask that you have another person independently verify that you can accurately perform the skill in question. We cannot stress enough the necessity of mastering these basic skills so that the training you provide to another person is done correctly. When you feel that you have adequately reviewed the materials, as well as the functionality of the Brain Power® Program (exploring it in demo mode), you must go to www.TrainMyBrain.com and access the "Trainer Orientation" page contained under the "Getting Started" tab. At the bottom of the page you need to accept the following statement;

NOTE: You must click the Affirmation below, *after you complete the Trainer Orientation*, in order for you to be Certified to provide training. This will then change the Brain Power® program from Demonstration Mode to Training Mode. You cannot access a patient's account and provide training until you do this.

☐ **I affirm that I have thoroughly reviewed the trainer orientation material and the attached files. I further affirm that I have practiced all of the skills described in the trainer orientation material and, where appropriate, have had an independent person confirm that I am able to perform these skills accurately.**

You will then be certified to train with Brain Power®.

Below, are some basic skills that you will need to develop prior to patient training. Although most of the Brain Power program is intuitive to administer, there are some basic principles that must be understood. In order to expedite this process, go to www.trainmybrain.com, login and go to the

Reference Materials page and scroll down to Trainer Orientation. Below, you will be directed to open support files from this webpage to support your orientation. You can check off these sections as you complete them.

☐ **Mastery of Sound-Letter Associations**

Auditory processing skills cannot be effectively trained unless the Trainer can accurately identify and reproduce the appropriate sounds for each letter. In order to proceed with this part of the Trainer Orientation, please access the file labeled "Phonemic Production" from the Reference Materials page. Play the wav files associated with each letter. It is critical that you practice reproducing each sound multiple times. Start with the vowels sounds (a, e, i, o, u) as these are the hardest for many people to master, particularly the difference between "e" and "i". Once you have mastered the vowels, then work on the remaining consonants/letters.

Once you feel confident that you have mastered the sounds, have an independent person verify that you are accurately producing each sound. Independent verification should be performed by you saying the sound for each letter followed by the person playing wav file for that letter for comparison. In this way the person can compare what you said with the correct sound.

☐ Training Basic Speech Sound Production

There will be occasions when the Patient will not be able to correctly produce some of the sounds that go with certain letters due to difficulty coordinating the oral musculature. Consequently, you may need to provide assistance in learning how to produce these sounds.

Please go to the Reference Materials page and access the file labeled "Training Speech Sounds Production" that describes these procedures. Please read this information thoroughly. We recommend that you print this document for future reference.

☐ Rhythm Perception

Many of the training tasks require that the patient respond "on beat" in response to a metronome. It is the Trainer's responsibility to determine if the Patient is able to stay on beat while performing the training task. Consequently, you must have an adequate perception of rhythm in order to satisfactorily accomplish this. It is important that you practice clapping or tapping on beat along with a metronome at 30 beats per minute (bpm), 60 bpm, 120 bpm. Also, tap on every other beat at 120 bpm.

Please go to the Reference Materials page and access the file labeled "Rhythm Perception" and play the wav files which will help you to practice this skill. Once you are confident in your ability, have an independent person verify that you are accurately staying on beat at each speed, including every other beat at 120 bpm.

☐ Fine Motor Sequencing Skills

In order for a Trainer to administer the Fine Motor Sequencing module, it will be necessary to have a basic mastery of the fine motor sequencing skills that will be trained. Most importantly, the Trainer will have to be able to recognize when performance errors are made. Please go to the Reference Materials page and access the file labeled "Fine Motor Sequencing" that describes these procedures.

This task requires the Patient touch his thumb to every finger as specified at each level. It is important that the Trainer is able to demonstrate this skill. This will take some practice on the part of the Trainer as this is a learned skill, not one that comes naturally. Further, the Trainer must be able to visually recognize when the Patient is not doing the task correctly. The Trainer should open the Brain Power® Program and view the demonstration of each level in

Practice Mode. You should also practice teaching this to someone else so that you can learn to recognize when someone is not doing it correctly.

There are 4 different fine motor sequencing skills:

1. The Patient must touch his thumb to each finger of one hand, starting with the index finger and proceeding to the little finger, and then beginning back again at the index finger. This must be done for 30 seconds without error. This is performed at 60 and 120 bpm with each hand.

2. The Patient must touch his thumb to each finger on both hands at the same time, starting with the index finger and proceeding to the little finger, and then beginning back again at the index finger. This must be done for 30 seconds without error. This is performed at 60 and 120 bpm.

3. The Patient must touch his thumb to each finger from left to right with both hands at the same time (i.e. touch the little finger to the thumb of the left hand first and the index finger to the thumb of the right hand first and proceed in sequence and then back the other direction). This must be done for 30 seconds without error. This is performed at 60 and 120 bpm.

4. The same as #3, but the Patient's right thumb should touch on every beat and his left thumb should touch on every other beat (i.e., every time one thumb touches one finger, the other thumb has touched two fingers). This must be done for 30 seconds without error. This is performed at 60 and 120 bpm.

☐ Gross Motor Sequencing Skills

In order for a Trainer to administer the Gross Motor Sequencing module, it will be necessary to have a basic mastery of the gross motor sequencing skills that will be trained. This is not a computer administered task. It is administered directly by the Trainer. Therefore, if is crucial that you are able to perform each of these skills yourself which will, at a minimum, require that you go to the Reference Materials page and access the file "Gross Motor Sequencing." However, it is recommended that you practice performing these skills with another person.

☐ Understanding Conceptual Reasoning

In order for a Trainer to administer Conceptual Reasoning, it will be necessary to have a basic proficiency of how to identify correct and incorrect conceptual sets. Please go to the Reference Materials page and access the file "Understanding Conceptual Reasoning" that provides a written description of how to identify conceptual sets. You should then open the Brain Power® Program and successfully pass levels 1-6 of Conceptual Reasoning to assure that you understand how to identify sets.

☐ Understanding Deductive Reasoning

Deductive Reasoning should not be administered until the Patient can pass Level 4 of Conceptual Reasoning because the patient must possess basic conceptual reasoning abilities in order to perform this task. Also, a Trainer needs to have a good understanding of the problem solving strategies needed to perform this task so that they can be taught to the Patient. Please go to the Reference Materials page and access the file "Understanding Deductive Reasoning" which provides a description of the deductive reasoning process. You should then open the Brain Power® Program and successfully pass levels 1-11 of Deductive Reasoning to assure that you understand how to teach this reasoning process.

☐ Recognition of the Pictures used for Confrontation Naming and Spatial Picture Memory

The Confrontation Naming and Spatial Picture Memory tasks utilize a large number of pictures of familiar objects. It is important that you know the names of all of these objects, as well as acceptable alternate names. Open the Confrontation Naming module and review the pictures and names on Levels 1 and 6. It is important that you acquire a level of proficiency where you can name each of these pictures at a rate of one per second (including knowledge of all alternate responses). Please go to the Reference Materials page and access the file "Confrontation Naming and Spatial Picture Memory Picture Names" and review the names of the pictures.

Practice vs. Training Mode

All of the training modules have a Practice Mode and a Training Mode. The Practice Mode allows you to present the task to the Patient and provide an appropriate demonstration of how to perform the task. It is important that you do not provide training in the Practice Mode. This should only be used for the purpose of a brief explanation and demonstration to confirm that the patient understands the task. The Training Mode is used for actual training purposes. A Patient can only pass a level while in the Training Mode and performance data is only gathered in the Training Mode.

Pre-training Skills

There are some basic skills that a patient will have to possess in order to adequately work on certain training modules. It is recommended that you begin training by confirming that the patient possesses these skills.

- ☐ Basic rhythm perception

  The Patient needs to have sufficient rhythm perception to be able to keep a steady beat along with a metronome. Open the "Rhythm Perception" wav files described earlier and have the patient tap or clap in beat with the metronome at 60 bpm and 120 bpm, and on every other beat at both speeds. The Gross Motor Sequencing training module can also be used to work on rhythm perception.

- ☐ Basic math

  Certain modules (i.e. Divided Attention Auditory Calculations) require that the patient perform basic mental math calculations. It is important to assure that the patient possesses these basic math skills before attempting these tasks. Children should be able to pass Level 6 of Basic Skills Addition and Subtraction, and adults should also be able to pass Level 3 of Multiplication. Access "Math Training Tips & Tricks" from the Reference Materials for instructions on how to evaluate and train basic numerical skills.

General Training Guidelines

While the Brain Power® Cognitive Skills Training Program is extremely comprehensive, it is recommended that training only occur in areas where the patient has identified weaknesses. Working in too many areas will dilute the overall effect of the treatment. The object is to stimulate very specific parts of the brain on a daily basis to promote development. You should use the "*Brain Power® Treatment Plan*", which can be downloaded from the Reference Materials page (Treatment Planning section) of the website, to help you chose the appropriate training modules. You will see that some modules provide training in more than one functional domain.

For individuals with more complex Learning Disorders or Brain Injuries, the training should be done in stages, typically training the two most basic processing skills (i.e., visual and auditory

processing) for 12 weeks and then more complex processing skills (i.e., executive functions and language skills) for 12 weeks.

In order for a patient to receive maximum benefit from cognitive skills training, it should ideally be provided on a daily basis, one hour per day, always achieving a minimum of 6 days per week (7 recommended). Only consistent, intense stimulation will result in maximum development of new neural connections (neuroplasticity).

It is very important to avoid unnecessary frustration and maintain task novelty which will assure maximum motivation to perform throughout the training session. Generally, the Patient should not work on any task for more than 10 minutes. If the Patient begins to show signs of frustration prior to this, try giving an endpoint (i.e. trying the task 3 times and then move on to something else or continuing the task for a specified amount of time) so that there is a "light at the end of the tunnel." Further, give plenty of praise and reinforcement for their effort.

Initially, the Patient will likely pass early levels of a training module very quickly until reaching levels that are difficult to pass. This is where the real therapy begins. The Patient could remain stuck on a level for several days before mastering it. Don't be discouraged. You are working to develop new neural connections and this takes repetition and time. (There has been a consistent observation that progress is slow in the first 6 weeks of treatment and then is seems like the "wall" comes down and therapeutic gains come more quickly from that point forward)

One of the side benefits of this experience is that it teaches the Patient about perseverance and that they can master difficult tasks if they don't give up. This builds self-confidence and self esteem. Parents frequently report after training is completed that the child's increased self-confidence and perseverance are seen in the classroom. They don't give up when faced with difficult tasks because they believe that they are capable and will keep trying until they succeed.

All of the tasks require the Patient to respond on beat to a metronome or complete the task with a time limit. This is designed to drive the skill to the point of being automatic. There are some tasks where the metronome is played but the task does not require responding on beat. Also the time bar is present at the bottom of the screen. These features are there as a distraction. Although this can be disabled, it is important for the Patient to be able to ignore distractions and perform a task at an optimal level. Many situations in the real world require this (i.e., driving).

Each training module has a **Practice mode and Training mode**. The Practice mode allows you to demonstrate the training task so that the patient comprehends what the task requires. However, you should never provide training in the Practice mode as none of the patient's performance will be saved in the database and they will not be able to pass the level in Practice mode.

There may be times when you work with children that demonstrate significant behavior problems. This can seriously compromise the treatment outcome. If such problems exist, a more structured behavior management plan may need to be implemented. There are many excellent books that cover this topic. Two books that are complimentary and get right to the point of describing effective behavior management strategies are SOS Help for Parents by Lynn Clark, Ph.D. and 1-2-3 Magic by Thomas W. Phelan. If you are a professional providing treatment then these books should be recommended to the parents and a coordinated behavior management plan should be put in place. *If behavior/motivation problems can't be adequately resolved then treatment should be discontinued* and help should be sought from a mental health professional. Treatment can be resumed once the problem is resolved.

You should also access the "*Brain Power® Treatment Log*" from the Reference Materials webpage which will allow you to document each day of treatment and any important observations that you need to keep track of.

Coaching and Support

It is important to always keep in mind that the training exercises contained in the Brain Power® Program are difficult and typically require a great deal of work to master. Many times, the Patient may have to attempt the same level of the task several times, over several training sessions before mastery is attained. Consequently, it is critically important to provide frequent praise and encouragement in order to maintain motivation and perseverance. You must become their personal "cheerleader." Sometimes, you may find that a Patient enjoys working on a particular task. If so, save this task for the end of the session as a "reward" for working hard on earlier tasks.

Program Description and Instructions

As part of your Trainer Orientation, you should now open the Brain Power® program and explore the various training modules. Every New User is allowed 15 days in Demonstration Mode so you can explore the various levels of each module. During actual training, the patient will advance through each incremental level in order. This progression through increasingly challenging levels is a key component of neurological stimulation and development. Please go through each module in order to develop familiarity and proficiency. Check off the box below as you complete each module so you have a clear record of your orientation progress.

A. Visual Processing

It should be noted that some of these tasks can be used to develop Language Processing Skills and Executive Functions. Please refer to the Brain Power® Treatment Plan. When necessary, many of the Visual Processing tasks can be done without a Trainer present.

☐ **Visual Tracking**

This task develops Oculomotor Control and Precision. It is a very basic task which involves tracking a ball with the eyes that moves across the screen in different directions. It is helpful for individuals that have visual tracking problems interfering with reading of oculomotor weakness due to a Brain Injury.

☐ **Line Orientation**

This task develops Spatial Visualization and Directionality. There are several ways that a response can be entered on this task. The Patient can use the mouse to click on the number of the line that is chosen, enter the number using the numeric keypad and hit Enter, or call out the number and the Trainer can enter the number using the numeric keypad and hit Enter. If the Patient is having difficulty when first trying this task, it is often a good idea to try the task in “Practice Mode” so that you can discuss the strategy that is being used to make a choice. It is acceptable to provide suggestions. Be sure that you switch back to “Training Mode” before resuming training.

☐ **Visual Discrimination Speed**

This task develops Rapid Visual Perception and Discrimination. This task requires locating one or more target stimuli from an array of letters or figures which get progressively smaller in later levels. This task is very similar to Visual Scanning Sequential (VSS) except that VSS uses only the letters b, d, p, and q. Because VDS is

perceptually more difficult, training of visual processing problems should probably start with VSS and later incorporate VDS.

- ☐ **Visual Scanning Sequential**
  This task develops Rapid Visual Scanning and Discrimination. As mentioned above, this task requires rapidly scanning an array of the letters b, d, p, and q that are randomly ordered and clicking on every occurrence of the designated target letter. The letter become smaller as the levels progress.

- ☐ **Visual Scanning Random**
  This task develops Rapid Visual Scanning and Discrimination. This task is similar to VSS except that the letters are randomly, rather than sequentially, presented on the screen.

- ☐ **Spatial Number Visualization**
  This task develops Spatial Visualization and the ability to maintain and work with a mental image. This task is also useful for training Language Processing. The Patient is presented with a number line (0-9) and must move around the number line in response to one or more verbal commands. On certain levels the number line disappears and the person must maintain an image of the number line in their head in order to follow the commands.

- ☐ **Spatial Visualization**
  This task develops Spatial Visualization and the ability to maintain and work with a mental image. This task is also useful for training Language Processing. The Patient is presented with either a 2 x 2 or 3 x 3 grid and must move around the grid in response to one or more verbal commands. On certain levels the gird disappears and the person must maintain an image of the grid in their head in order to follow the commands.

- ☐ **Visual Matching**
  This task develops Rapid Visual Discrimination and Spatial Orientation. This task requires that the Patient scan an array of geometric figures and find the one that matches the target. This task requires attention to detail as well as spatial perception.

- ☐ **Visual Construction**
  This task develops Spatial Perception and construction of multi-colored geometric designs. This task requires the Patient to drag and drop different colored triangles that are presented in different orientations in order to complete a geometric design.

- ☐ **Puzzle Construction**
  This task develops Spatial Perception and attention to visual detail. The Patient must construct jigsaw puzzles of pictures. Models are present in early levels. In later levels there is no model to work from and the pieces are rotated. Also, the number of pieces contained in the puzzle increases in later levels.

B Auditory Processing (Oral Motor Control)

Phonemic Processing I-VIII were originally designed to work on developing Auditory Perception of speech sounds. However, it quickly became apparent that individuals with articulation disorders benefitted from these tasks because they require that the person repeat the sounds accurately. While these tasks are not meant to replace speech therapy, they have definitely facilitated improved speech production.

Phonemic Processing I-VIII should be trained in sequence. In other words, these modules should be completed one at a time, in sequence (i.e. Phonemic Processing I C/V, then Phonemic Processing II CV/VC, etc.) as these modules build on one another. Do not train on PP II CV/VC until you have completed all levels of PP I C/V. You can incorporate the other auditory processing modules (i.e. Phonemic Blending, Phonemic Elimination, etc.) into the

treatment plan once they have progressed through Phonemic Processing VI (CCVC) as these other training modules are dependent on the skills that are trained in Phonemic Processing I-VIII. You may also skip the last level of each module which requires the patient to type the answer if typing skills are poor.

☐ **Rhythm Discrimination**
This task develops discrimination of rhythmic patterns.

☐ **Pitch Discrimination**
This task develops discrimination of tonal patterns.

☐ **Phonemic Processing I** (V/C)
This task develops discrimination and production of single vowels and consonants. The patient must correctly identify, reproduce and type the sounds of the letters, depending on the level.

☐ **Phonemic Processing II** (CV/VC)
This task develops discrimination and production of consonant and vowel combinations. The patient must correctly identify, reproduce and type the sounds of the letter combinations, depending on the level.

☐ **Phonemic Processing III** (CVC)
This task develops discrimination and production of consonant and vowel combinations. The patient must correctly identify, reproduce and type the sounds of the letter combinations, depending on the level.

☐ **Phonemic Processing IV** (CCV)
This task develops discrimination and production of consonant and vowel combinations. The patient must correctly identify, reproduce and type the sounds of the letter combinations, depending on the level.

☐ **Phonemic Processing V** (VCC)
This task develops discrimination and production of consonant and vowel combinations. The patient must correctly identify, reproduce and type the sounds of the letter combinations, depending on the level.

☐ **Phonemic Processing VI** (CCVC)
This task develops discrimination and production of consonant and vowel combinations. The patient must correctly identify, reproduce and type the sounds of the letter combinations, depending on the level.

☐ **Phonemic Processing VII** (CVCC)
This task develops discrimination and production of consonant and vowel combinations. The patient must correctly identify, reproduce and type the sounds of the letter combinations, depending on the level.

☐ **Phonemic Processing VIII** (CCVCC)
This task develops discrimination and production of consonant and vowel combinations. The patient must correctly identify, reproduce and type the sounds of the letter combinations, depending on the level.

☐ **Phonemic Blending Auditory-Visual**
This task develops the ability to blend individually written letters into a whole word. The patient must first say the sounds for each letter in the consonant-vowel combination that is presented on the screen and then pronounce the sound of the letters together while staying on beat with a metronome.

☐ **Phonemic Blending Auditory-Verbal**

This task develops the ability to blend auditorily presented phonemes. The patient is presented with the sounds of individual letters which must blended together and spoken while staying on beat with a metronome.

☐ **Phonemic Segmenting Oral**
This task develops the ability to segment auditorily presented words and verbalize the individual phonemes. The patient is present with a consonant-vowel combination which must be segmented into it's individual sounds and spoken aloud.

☐ **Phonemic Segmenting Written**
This task develops the ability to segment auditorily presented words and write down the individual phonemes.

☐ **Phonemic Identification**
This task develops the ability to isolate and verbalize a specified phoneme within a word.

☐ **Phonemic Elimination**
This task develops the ability to verbalize a word after eliminating a specified phoneme within that word.

☐ **Phonemic Addition**
This task develops the ability to generate new words by replacing the vowel sound.

☐ **Phonemic Reversal**
This task develops the ability to hear a word and either verbalize or write down the individual phonemes in reverse order.

C. Visual and Verbal Memory

These training modules can be used to work on Language and Visual Processing skills as well as Memory.

☐ **Visual Word Memory**
This task develops the ability to memorize a list of visually presented unrelated words.

☐ **Auditory Word Memory**
This task develops the ability to memorize a list of auditorily presented unrelated words.

☐ **Visual Association Word Memory**
This task develops the ability to memorize a list of visually presented words utilizing an association strategy. ***If the Patient will be working on Visual and Auditory Word Memory, then these tasks should be completed before performing Visual Association Word Memory.***

To perform this task, the Patient will need to develop a "room list" which involves picking four rooms in the person's house (that are labeled first, second, third and fourth) then identifying and mentally visualizing five objects in each room that can be visualized in sequence, as if looking around the room from left to right. In the end, the person will have a list of 20 objects that they can visualize in their mind in sequence, starting with the first room, then the second room, etc. The trainer should download the "Room List" from the Reference Materials (Trainer Orientation section) and write down this list for reference when performing this task.

☐ **Auditory Association Word Memory**
This task develops the ability to memorize a list of auditorily presented words utilizing an association strategy. ***If the Patient will be working on Visual and Auditory Word***

Memory, then these tasks should be completed before performing Auditory Association Word Memory.

To perform this task, the Patient will need to develop a "room list" which involves picking four rooms in the person's house (that are labeled first, second, third and fourth) then identifying and mentally visualizing five objects in each room that can be visualized in sequence, as if looking around the room from left to right. In the end, the person will have a list of 20 objects that they can visualize in their mind in sequence, starting with the first room, then the second room, etc. The trainer should download the "Room List" from the Reference Materials (Trainer Orientation section) and write down this list for reference when performing this task.

☐ **Visual Word Pairs**
This task develops the ability to memorize a list of visually presented word pairs.

☐ **Auditory Word Pairs**
This task develops the ability to memorize a list of auditorily presented word pairs.

☐ **Visual Story Memory**
This task develops the ability to recall a visually presented narrative story.

☐ **Auditory Story Memory**
This task develops the ability to recall a verbally presented narrative story.

☐ **Spatial Figural Memory**
This task develops the ability to memorize the spatial location of geometric figures within a grid.

☐ **Spatial Picture Memory**
This task develops the ability to memorize the spatial location of pictures within a grid.

D. Executive Functions

☐ **Concentration Inhibition - Auditory**
This task develops Concentration and Response Inhibition. The Patient must attend to the random presentation of high and low tones, clicking the mouse whenever the high tone is played. Distracter sounds are presented on later levels.

☐ **Concentration Inhibition - Visual**
This task develops Concentration and Response Inhibition. The Patient must attend to the random presentation of large and small squares, clicking the mouse whenever the small square appears. Later levels utilize multiple targets and distracter stimuli.

☐ **Divided Attention-Letter Discrimination**
This task develops Rapid Visual Discrimination, Concentration, Response Inhibition, Conceptual Tracking and Divided Attention. This tasks requires that the Patient rapidly tab through non-target letters and hit a specific key on the keyboard when a target letter is encountered. On later levels there are up to four target letters, each paired with a different letter on the keyboard. This requires conceptual tracking to use the correct key for each target letter.

☐ **Divided Attention-Auditory Calculations**
This task develops Divided Attention, Concentration, Immediate Memory, and Simple Computations. The computer initially presents two auditory numbers which the Patient must add (subtract or multiply) together and verbally provide the answer. The computer

then presents a new number which must be added to the last number that was previously presented, not to the answer that the Patient gave. The answer that they gave is irrelevant. The object is for the Patient to hold the last number given by the computer in memory while they give their response so that it is available to be added (subtracted or multiplied) to the next number provided by the computer. It may be necessary to train the Patient on the Basic Math modules so that they can perform this task. An example of how this task progresses is presented below:

Addition

3 +
4 = 7
+
2 = 6
+
7 = 9

Subtraction (On this type of problem, the answer is the difference between the numbers. The answer is an absolute number, not a negative number)

3 -
1 = 2
-
5 = 4 (Note: 1 minus 5 is actually a negative number. 4 is the difference between the numbers)
-
2 = 3
-
7 = 5

Multiplication

2 x
3 = 6
x
1 = 3
x
5 = 5

The Trainer will need to provide whatever feedback is necessary after an error is made so that the trainee can resume the task correctly.

☐ **Divided Attention-Visual Calculations**

This task develops Divided Attention, Concentration, Immediate Memory, and Simple Computations. This task is the same as Divided Attention-Auditory Calculations. The computer initially presents two numbers on the computer screen which the Patient must add together and type in the answer. The computer then presents a new number which must be added to the last number that was previously presented, not to the answer that the Patient gave. The answer that they gave is irrelevant. The object is for the Patient to hold the last number given by the computer in memory while they give their response so that it is available to be added (subtracted or multiplied) to the next number provided by the computer. It may be necessary to train the patient on the Basic Math modules so that they can perform this task. See the example of this task above under Divided Attention-Auditory Calculations.

☐ **Color Arrows**

This task develops Concentration, Conceptual Tracking and Shifting Sets. The Patient is presented with colored arrows presented in different directional orientations. The Patient

must call out the color or the direction of each arrow, depending on the level. The Trainer should download the "Color Arrows Answer Sheet" from the Reference Materials *(Trainer Orientation section)* and use it to score the patient's responses. This task can be very challenging for the Trainer to fluidly input the data and correct incorrect responses by the patient. The Trainer will be required to input whether the patient's response is Correct or Incorrect by typing 1 for Correct or 2 for Incorrect. The Trainer should try to input the response quickly so that the box highlighting the item moves forward appropriately. If the patient makes an error, the Trainer should also quickly call out the correct response from the answer sheet, while inputting 1 or 2, before the patient gives the next response. The patient should keep going, even when corrected, and try to stay on beat.

☐ **Color Words**

This task develops Concentration, Conceptual Tracking and Shifting Sets. The Patient is presented with the words black, blue, red and yellow in colored font that is different than the word. The Patient must call out the word or the color of the font it is printed in, depending on the level. Like Color Arrows, this presents the same challenge for the trainer to input the Patient's responses and provide error feedback. The Trainer should download the "Color Words Answer Sheet" from the Reference Materials *(Trainer Orientation section)* and use it to score the patient's responses. As with Color Arrows, the Trainer will be required to input whether the patient's response is Correct or Incorrect by typing 1 for Correct or 2 for Incorrect. The Trainer should try to input the response quickly so that the box highlighting the item moves forward appropriately. If the patient makes an error, the Trainer should also quickly call out the correct response from the answer sheet, while inputting 1 or 2, before the patient gives the next response. The patient should keep going, even when corrected, and try to stay on beat.

☐ **Number Color Sequencing**

This task develops Sequencing, Shifting Sets, and Response Inhibition. The Patient must click on a random array of numbered and colored dots in sequence within a time limit.

☐ **Conceptual Reasoning**

This task develops Conceptual Reasoning skills. The Patient must analyze an array of figures and identify sets of three figures that are conceptually related. Please download the file "Understanding Conceptual Reasoning" from the Reference Materials page *(Trainer Orientation section)* for an explanation of how this task works.

☐ **Deductive Reasoning**

This task develops Deductive Reasoning skills. The Patient must develop and test hypotheses, and use feedback about the accuracy of the guesses to figure out the solution. Please download the file "Understanding Deductive Reasoning" from the Reference Materials page *(Trainer Orientation section)* for an explanation of how this task works.

☐ **Post Office**

This task develops Planning and Organization Skills. The Patient must deliver mail to specified addresses on a map and, when directed, pick up mail from one or more mailboxes. Some levels require that the Patient find the shortest route to deliver mail, sometimes within a time limit. Further the Patient may not move backwards or retrace their path. ***Before attempting any level of this task, the Patient should study the map on the screen so as to become familiar with the system used for the street names and numbering.*** Further, once a level has been started, the Patient should first study the addresses to be delivered to and plan a route before moving the mail truck. Note that the addresses are not listed in the order of delivery.

E. Academic Skills / Basic Math

These training modules were not developed to improve academic achievement. They are designed to train the basic math skills needed to work on certain training modules (i.e. Divided Attention-Auditory Calculations). They should be used any time math skills appear to be interfering with task performance.

☐ **Basic Addition**
This task develops basic addition skills.

☐ **Basic Subtraction**
This task develops basic subtraction skills.

☐ **Basic Multiplication**
This task develops basic multiplication skills.

F. Motor Skills

This group of training modules works on Fine Motor Speed and Coordination, Visual-Motor Integration and Gross Motor Coordination. Some of these tasks must be administered directly by the Trainer. Therefore, the Trainer needs to be proficient at both performing the skills for demonstration purposes, but must also be able to recognize when the patient is not performing the task correctly. On those tasks administered by the Trainer, you should not pass the patient on a level until the task can be performed smoothly and efficiently. It is not enough that no errors are made.

☐ **Finger Tapping Speed**
This task develops Fine Motor Speed. This is a computer administered task.

☐ **Fine Motor Sequencing**
This task develops Fine Motor Sequencing skills. This task is administered directly by the trainer.

☐ **Visual-Motor 1**
This task develops Visual Scanning, Visual Tracking and Visual-Motor Integration. This is a computer administered task.

☐ **Visual-Motor 2**
This task develops Visual Scanning, Visual Tracking and Visual-Motor Integration. This is a computer administered task.

☐ **Gross Motor Coordination**
This task develops Upper and Lower Extremity Coordination, and the ability to crossing midline. This task is administered directly by the trainer.

G. Language Processing

☐ **Confrontation Naming**
This task develops word finding ability. The patient is presented with pictures and must provide the correct name for each picture.

☐ **Verbal Commands**
This task develops the ability to follow multi-step commands. The patient must follow commands to place different colored shapes in a grid.

There are several visual processing, executive function and verbal memory tasks that work on language processing.

- ☐ **Spatial Number Visualization**
- ☐ **Spatial Visualization**
- ☐ **All of the Verbal Memory Modules**
- ☐ **Color Arrows**
- ☐ **Color Words**