



# MIND APPs Project, Interacting through Technology at Home

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## Tips for using the iPad® as an educational tool for children with Fragile X Syndrome (FXS) & Autism Spectrum Disorders (ASD)

The iPad® is an innovative device that allows us to interact with children with special needs with a technological approach. Current studies cannot yet provide consensus recommendations on using the iPad® for 1-on-1 therapy and the best suited applications protocol for their individual psycho-educational needs. However, since the emergence of the iPad®, professionals of all disciplines are implementing tablets-based interventions and using applications for improving therapy for people with ASD and FXS.

The iPad® is also widely used at home. Parents and other caregivers are integrating the iPad® in their daily-life routines to make transition easier, and to promote their children's learning environment. It is as much a tool for educational support, as well as an entertaining toy.

The main goal of this brief guide is to offer families some advice about how to use the iPad® or other tablets for educational purposes and how to interact through them with their children. If you are sharing the same interests, you are also initiating communication and joined attention. It is important to learn more about the way you are using the iPad®, because it can become a special tool for social exchange and learning challenges.

Below we present helpful advice to start using the iPad® at home with an educational and communication approach.



### 1. Setting up your device & understanding the APPs

First of all you need to handle your device – there are specific tricks to make it easier and safer to work with your children. New iPad® generations presents what

is called *Guided Access*, a special feature for facilitating learning in children with special needs.

Link:

<http://support.apple.com/kb/HT5509>

<http://bridgingapps.org/2012/08/ios6-guided-access/>

It is possible to block the volume display, and limit access to certain WebPages and applications. *Settings>General>Restrictions*.

Also, you can modify physical and motor conditions to facilitate our children to play with the iPad®. Just go to *Settings>General>Accessibility*.

Before presenting a new application to your child, you must be sure that you are familiar with it yourself, so you can encourage learning without mistakes.

Take your time to explore and play by yourself, so you can experience the challenges your child could have playing with this new app. You are the specialist- you have the best idea of how your child will like the app.

You can always present the app as a game for a first test run, and also have some of their favorite other apps to switch to before your child gets bored.

Setting up the device and understanding the apps prevents mistakes in learning.



## 2. The environment matters

In learning as well as in game time, your environment matters. You want to have a calm, comfortable context to start working with the iPad®, so your child understands you are starting a new setting. You can choose the room you like the most for interacting through the iPad®. You can play either on the floor or at the table; you can be sitting next to your child, or opposite. The only thing you need to guarantee is a smooth transition to a learning context. Let's consider beforehand where your child is going to feel more comfortable, and where you can promote the best environment for focus and concentration.

Visual cues help children with special needs to understand from the context what you are doing next.



### 3. Being in a good mood (I)



Interacting with your child is not always easy or possible, sometimes you feel tired or simply not in the mood at all for the iPad®; this is completely fine, and it is good that you are aware of this feeling. It is important that you feel confident and supportive enough to maintain an iPad®-centered interaction for a while, so you can provide your child with the help and support needed to learn. To avoid frustration, some apps related to writing, reading, maintaining attention, etc. should not be done at the beginning of a training if those are very challenging for your child, better be prepared to combine patience and teaching skills with some easier apps.



### 4. Being in good mood (II)

Your child also needs to be in a good mood for accepting your help and interaction through the iPad®. It is important to create a great first experience when working with the tablet, so we really want the first interaction to be under the best possible conditions to have fun and enjoy the time together. Do not try to play with your child if he or she is tired, worried or in the mood for another activity. Once we have started to introduce the iPad® routine, we then can introduce more iPad® activities and extend the time of interaction.

Being calm and happy encourages the learning process.

### 5. Prompts

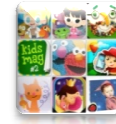


You can help your child to understand better when the iPad® is used for fun and relaxation, or when is used for educational games. We can implement different features depending on the age, developmental level and personal needs: **1) Verbal prompting**, using the same sentence when starting the intervention 'we are going to play together', 'it is time for sharing the iPad® together', 'iPad® for two'; **2) Visual prompting**, using different covers to promote the transition from play to “work” (i.e. red cover is for playing alone, blue cover is for working together). You can also add a sticker/image/pictogram when working and detach it when finishing. **3) Physical prompting**, taking your child's hand to make him or her understand you



are playing together, you can also guide them by taking his or her finger to point towards the screen.

You can combine different features according to your children's age and needs



## 6. Let's start by selecting proper applications based on their interests

When starting an iPad®-centered intervention at home you first need to select the apps that you think are the most motivating for your child. You can choose applications related to their hobbies and special interests: trains, dinosaurs, puzzles, washing machines, planes, animals, balls, cars, tools, etc. You can most likely find plenty of possibilities by searching through the App Store. Our research team can assist you if you have questions.

Learning through motivation.

## 7. Time for learning



If you followed the steps above you and your child are ready to start the learning process through the iPad® and you will feel more confident after each training. Learning is a slow process and takes time to happen (there is an African saying – “The grass does not grow faster, even if you pull at it.”). Just as in other interventions, there is no miracle cure; the training has to be frequent and consistent. It is necessary to consult a professional or receive advice from a specialist you trust, either from school, or community services. Our research team may know how to use applications and its main goals, also be familiar with specific therapeutic guidelines for your child. It is necessary to design an individual training protocol of apps matching your child's needs.

It is essential that we track and measure your child's performance and progress during the iPad® intervention. Linking 1-on-1 learning to your child's key priorities is crucial.



**Care Circles** app can help us to achieve this goal by creating a protected data network of families, professionals and schools. It allows us to create a personalized treatment plan by adopting strategies and sharing best practices from experts around the world, and to keep records and track progress.



Link: <http://www.carecircles.com/>

A successful iPad® program requires the full involvement of the family and professionals network.



## 8. Focus on interaction, taking turns!

Link: <http://www.handholdadaptive.com/>

Provides useful apps to help with the learning process: **Sharing Timer APP.**

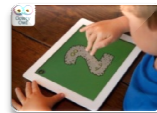
Link: <http://tocaboca.com/>

Provides great apps for playing and promoting interactions between you and your child.

Link: <http://www.pepiplay.com/>

Provides apps for sharing and practicing social skills and exploring the game together.

Choose a simple app to practice turns... FIRST, THEN... to establish this strategy is essential for a 1-on-1 iPad® intervention.



## 9. Scaffolding the process of learning

Start by providing as much support as your child needs, then, little by little, you should start reducing your support, and encourage your child's autonomy and self-reliance. 1-on-1 intervention requires understanding your child's strengths and weaknesses to improve the competence level. Sometimes it is useful to make a list of strengths and weaknesses to select and combine easy and challenging apps.



## 10. Rewards, creating the 'fun folder'

A reward box / treasure chest is required😊! Let's make a folder with "silly funny" apps your child loves to keep him or her motivated through the tough ones. It is very helpful for your child to know that he or she will enjoy playing with the TOP



TEN apps at some point during the intervention. It is recommended that the favorite apps remain hidden so he or she is not able to play whenever he or she would like to. See step 1.



### 11. Scheduling the time for 'iPad® together'

#### **First-Then Visual Schedule App.**

You can find applications for establishing sequences in the activities and during the session. You can also use a paper and pencil to draft your iPad® timetable.



### 12. Maintaining the routine

When starting a 1-on-1 iPad® intervention and you feel confident, you can start to maintain a routine and repeat the interaction twice during a week, and your child will be involved in building this habit. However, iPad® centered intervention is not always possible and it may not work with all children, especially if there are other in-home interventions. In that case, it is better to use the iPad® predominantly for fun, without insisting on educational interactions.



### 13. Including others (siblings, family members...)

Including others to play it is also possible. There are plenty of applications developed for sharing, and they allow more than 2 players. iPad® can be transform into a -game table to support play skills and turn taking. It can also scaffold cooperative play.



### 14. Limited iPad® use depending on the context

The use of the device is not always required. There are situations when you can promote other skills related to social behavior. The iPad® might be an excuse for starting an interaction, but you should encourage your child to play, learn and enjoy other toys, people and natural situations as well.



### 15. Managing unwanted behaviors: insistence on sameness, auditory self-stimulation, visual self-stimulation.

Some children with ASD and FXS like to repeat the same activity, video clip, or other stimulus over and over again. They may like specific sounds or sensations



and go over them without particular purpose. When any behavior is being non-functional you may need to redirect it, or stop it following some strategies: turning off the volume, changing the app, using headsets, activating *Guided access*, controlling brightness, etc. It is important to reduce undesirable behaviors to avoid the establishment of repetitive routines with the iPad®.



#### 16. Apps for motor control and touch practice

For implementing a good 1-on-1 iPad®- program we need to be sure that your child can master the motor control for using hands and fingers. There are some **apps** that can help to practice tapping, dragging, pressing, flipping, etc.

Type in your App Store:

Identify Thing

Wood Blocks/ Wood Blocks for Kids

Reactickles Magic

Happy Bubbles

I Love Fireworks

Magic Piano

Live Artist

Juno's Piano

Sam Phibian

Somatics

Dexteria Jr.

Dexteria





## Adolescence

<http://blog.asha.org/2014/02/11/top-ten-apps-for-adolescents-and-adults-with-developmental-disabilities/>

Name of App	Price	Lite/Free Version available?	Goals to be targeted
Conversation Builder Teen (Mobile Education Store LLC)	\$19.99	No	-conversation -pragmatics -abstract language -community based goals
Between the Lines Advanced (Hamaguchi Apps)	\$15.99	.99 cents	-conversation -expanding vocabulary -abstract language -problem solving -answering "wh" questions -interpreting body language
Community Success (Attainment Company)	\$39.99	Yes-Free	-expanding vocabulary -answering "wh" questions -improving community skills -sequencing -social skills -literacy
Read to Learn (Attainment Company)	\$39.99	Yes-Free	-life skills - literacy -narrative skills -social skills -sequencing -emotions, feeling
Talking Mats (Talking Mats Company)	Pro Version available 10 Euro per month (approx 14 dollars per month)	Taster-Free Lite-5.99 Euro	-conversation -turn taking -answering "wh" questions -social skills -staying on topic
Conversation TherAppy (Tactus Therapy Solutions Ltd.)	\$24.99	Yes-Free	-answering "wh" questions -can be used as part of an assessment -commenting -conversation starters -describing -feelings -prediction
Personal Social Skills-Workplace (Hanover Company)	\$1.99	No	-commenting -sequencing -social skills -appropriate behavior in workplace -expanding vocabulary
Social Success (Attainment Company)	\$39.99	Yes-Free	-life skills - literacy - narrative skills -social skills -sequencing -problem solving -answering "wh" questions
Difficult Situations Fun Deck (Super Duper Publications)	\$3.99	No	-problem solving -answering "wh" questions -conversation starter
I Get...Going to a restaurant Vocabulary (I Get It, LLC)	\$2.99	No	-can be adapted easily -can create your own social story -expanding vocabulary -sequencing - actions related to eating at a restaurant