

# Top 10 Things to Know About the Fragile X Learning Style

These ten tips will help bring out the strengths of each child or adult and minimize or improve some of the struggles they may encounter in a learning environment. It's also important for educators to note that the neurobiology of Fragile X syndrome (FXS) causes a lack of focus and brings on anxiety when a person with Fragile X syndrome is given direct attention.

## 1. **Don't force eye contact**

Eye contact is difficult for those with FXS. It should only be stressed when teaching social skills. Eye contact with you may improve when the student becomes more comfortable with you.

## 2. **Functioning varies**

Engagement and performance is likely to vary greatly. Each person learns at a different pace due to the developmental delay that is symptomatic of FXS.

## 3. **People with Fragile X syndrome learn the whole rather than the parts**

Students with FXS they learn visually and do not succeed with phonetics. They are gestalt learners; good sight word learners, but have a terrible time with phonetics. They are motivated by the end result, and impatient with the process. Use backward rather than forward chaining; use checklists to show progress toward an end result.

## 4. **Allow and/or encourage frequent breaks**

Accommodate attention deficits by keeping tasks brief. Keep up a good pace – power breaks are *short* breaks.

## 5. **Understanding verbal input**

Provide some non-verbal alternatives for students during instruction, such as visual representations.

## 6. **Think "INDIRECT"**

There are times when students with FXS enjoy attention, but most often they are adverse to the limelight. Give compliments in the 3rd person about the student to others within earshot; use incidental learning; include the student in a small group while directing instruction to a peer; avoid direct, open-ended questioning: prompt "*The name of your teacher is....*" Vs "*who is your teacher?*"

## 7. **Transitions can be difficult**

Prepare for transitions by giving 10 and 5 minute prompts. In a primary school setting allow a child to be at the head or back of the line. Use social stories about routine changes. Provide a purposeful errand so the focus is on the outcome (eg. delivering an envelope) rather than the child moving from one place to another. When possible, limit the number of transitions.

## 8. **Include support services such occupational therapy, speech & language and physio**

Sensory integration, speech and language and motor deficits need therapeutic attention. Integrating activities that are *heavy work* (like re-arranging desks in the classroom, cleaning windows, moving stacks of books) and provide *vestibular input* (like going for a walk, doing wall pushups, swinging, and using a skateboard) throughout the day can sustain a calm, regulated nervous system.

## 9. **Notice environmental triggers**

Students with FXS often have sensory sensitivities to sound, light, textures, taste, and smell that provoke hyperarousal, which undermines focusing and the ability to learn. Make adjustments to the environment. (eg. dim lighting, allow use of muting headphones) as much as possible.

## 10. **Know FXS strengths**

Common strengths associated with FXS are a good visual memory, sense of humour, desire to be helpful, empathic nature, and gift for mimicry. People with FXS enjoy social contact and relationships, but miss social cues. Use visual cues, make learning fun, provide opportunities to be of assistance, encourage providing emotional support to peers, use modelling as a primary teaching technique – embed academics into useful and practical tasks, such as taking attendance (counting) or ordering from a menu (reading).

Adapted from "Top Ten Things for teachers to know about Fragile X syndrome" by Laurie Yankowitz, Ed.D. with input from Dr Marcia Braden PhD. March 2020