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Autism: Language Strategies for Learning With a Visual Brain

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Visual Language Strategies for Individuals with Autism Spectrum Disorders


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How Does a Person With ASD Learn?

- The receiving ability of the sensory system is fine, but integration of the system to assign meaning is difficult
- Acoustic patterns alone do not develop language
- Visual patterns can form concepts but concepts can't get translated
- Movement connects both space and patterns of sight into visual concepts


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How Does a Person With ASD Learn?

- Programs that emphasize motor access to behavior, academics, and socialization provide the most meaning and therefore the most learning, although educators typically do not use fine motor movements such as writing as a way to access learning for students with ASD as a first resort.


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How Does a Person With ASD Learn Language?

- Language represents a person's underlying thoughts or concepts
- As the interaction between patterns and concepts increases, the child begins to acquire language; the symbols that represent concepts
- Language development is as mature as the child's conceptual development so language does not always develop without intervention


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How Does a Person With ASD Learn Language?

- A learner's underlying thinking is known as meta-cognition
- A learner's underlying way that language functions to represent thinking is meta-linguistic function
- Some children with ASD have difficulty acquiring language in any form and others have superior skills in acquiring some aspects of language **structure** but struggle with certain **functions** of language
- Different languages form to represent differences in thinking


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How Does a Person With ASD Learn Language?

- Children with ASD acquire a visual form of language and are expected to process and learn to translate English which is an auditory language
- Not being able to translate visual language into auditory meaning often results in miscommunication or socially inappropriate use of language


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How Does a Person With ASD Learn Language?

- Education in the U.S.A. is based on auditory properties of English even though most children do not think in these properties.
- We believe that 100% of individuals with ASD use a form of visual conceptualization and meta-linguistic function
- Their ability to become literate will depend on how educators understand how children with ASD learn language through their visual and motor systems


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How Does a Person With ASD Learn Language?

- Teaching children to be literate through auditory memory tasks such as spelling letters and sounds, producing sounds for speech development, or learning to read with an emphasis on phonics is frustrating for our students with ASD and may result in acting out or aggressive behaviors
- Connecting visual images with visual-motor patterns (speech or writing) helps students with ASD learn academic, social, and behavioral meaning

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The Four Stages of Cognitive Development Jean Piaget

Stage 1- Sensori-motor from Birth-2 years

This stage is characterized by the discovery of relationships between sensation and motor behavior.

Agency is about being an extension of the environment. The child laughs, cries, and has few words.

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The Four Stages of Cognitive Development Jean Piaget

Stage 2-Pre-operational from 2-7 years

This stage is characterized by the use of symbols to represent objects internally, especially through language.

Agency is about 'me'. This child does not share, interrupts; is learning many words. (I am the only person in the world. It's my table, my friends, my toys).

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The Four Stages of Cognitive Development Jean Piaget

Stage 3- Concrete Operational from 7-11 years

This stage is characterized by the mastery of logic and the development of 'rational thinking'.

Agency is about one who relates to others, understands the concept of 'we' and the meaning of rules, but not why the rules are in place, plays and shares well with others. (It is our table, our toys)

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The Four Stages of Cognitive Development

Jean Piaget

Stage 4 - Formal Operations from 11 years +
This stage is characterized by the development of abstract and hypothetical reasoning.

Agency is about having multiple ideas, taking another person's perspective, understanding the 'whys' about things, and understanding concepts that cannot be seen, touched, or felt e.g. being prepared, kind, respectful, government, responsibility.


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Viconic Language

- The process of imposing the characteristics of visual language onto an auditory way of thinking; so as to create effective language strategies, for someone who thinks in pictures, but uses English, is called "Viconic Language" (Arwood & Brown, 2002; Arwood & Kaulitz, 2007; Arwood, Kaulitz, & Brown, 2009).


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Viconic Language


Imposing visual language to translate English to visual thinking.

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ASD Thinking= Visual Motor Learning


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Examples of Viconic Language

- Oral cartooning
- Cartooning and writing the ideas
- Drawing, writing and bubbling ideas
- Hand over hand writing to create the shape in context of an idea
- Relational language for social development of conceptual meaning


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Examples of Viconic Language

- Oral cartooning--Language should be visual and specific to what the child sees so an individual with ASD can see himself move through space.
- Writing to the cartoons helps the child see the concepts and patterns for better cognitive understanding of social development.


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Examples of Viconic Language (cont.)

- Drawing, writing and bubbling ideas in order to make visual shapes into mental concepts for maximum meaning
- Hand over hand writing or watching the hand move allows the child to see or feel the shapes of meaning.
- Use specific and rich contextual language to show relational social development

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Viconic Relational Language


- Language that works to develop the relational messages of context (visual thinking) creates better cognitive development and social outcomes than working on specific skills.
- When contexts connect and thoughts overlap with language, more symbolic language is created in the form of a mini-visual movie in the head.

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**Another example of
Viconic Language:
Mabel Mini-Lectures**


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Increased Referential Language

- Use 'because' and 'so that' language
- Use specific referents eg: instead of saying, "good boy", or "good job", say, "Thank you for finishing all 10 of your math problems."
- Use **rich** language- say more, not less
- Use measurements words of space, time, quantity, and quality


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Increased Referential Language

- Use 'possibility' language to set the stage for future events
- Walk in the students' shoes-take their perspective
- Use consistent language-respond in similar ways to a behavior, but not exactly the same way (Arwood & Young, 2000)

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**Learning With a Visual Brain
in an Auditory World**

Visual Language Strategies For Individuals
With
Autism Spectrum Disorders
Ellyn Lucas Arwood, Ed.D. and Carole Kaulitz,
M.Ed., Autism Asperger Publishing Company,
March, 2007

Additional references: www.spiritone.com/~apricot
