

PRIMO



Case Study | Visually Impaired Population

Pinewoods Montessori School, Hillsborough, North Carolina, USA
July 2016

Age group

5 to 12 year olds

Group size

1-on-1 session

Session leader

Sharon Stroh-Cock

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“The visually impaired student was excited and proud with his success in programming Cubetto ‘All by myself!’”

Sharon Stroh-Cock, 2016



Activity

We introduced Cubetto to a visually impaired 5 year old child as part of a session within a larger group of children. The visually impaired student received an individual session to analyze his ability to code with Cubetto without support.

How was Cubetto used?

The visually impaired student was given the chance to feel each individual instruction block and talked with the facilitator about the direction each piece would send Cubetto. He turned Cubetto on and listened for the chime to indicate Cubetto was ready to work. The control board is large, making it easy to work with even if you can't see. When the child placed an incorrect instruction on the board, the facilitator prompted him by saying, "What direction will that piece send Cubetto?" He picked up the piece, felt it and correctly changed the coding block using sight and touch.

What worked best?

The ability to feel the directionality of the pieces and board, to hear Cubetto turn on, and the size of the board itself, definitely influenced the student's ability to successfully program Cubetto. In the single one-on-one session, the student was highly engaged in figuring out programs for Cubetto.

What skills did it develop?

The student began to develop fine motor skills, hand-eye coordination and problem solving. The student gained an understanding of simple computing language, and showed pride in his ability to correctly program and correctly debug when necessary.

What was challenging?

The student needed some instruction on how each piece works while holding them. Visually impaired students should be urged to feel the top of the pieces to ensure they have it set the way they want Cubetto to go.

How did pupils respond?

The student greatly enjoyed his individual time with Cubetto and, after initial support from the facilitator, indicated his excitement with his success in programming Cubetto, "by myself!"

How did the staff respond?

The teaching staff were very impressed with the design of Cubetto for sight impaired students, student engagement, problem solving, and time on task. The Primo Toys Teacher Guide is clear, the materials simple to use, and the board and pieces are extremely user friendly to the visually impaired being both large and tactile. Cubetto proved an effective learning tool for students with visual impairments and short attention spans.

