Smart Toy Diagnosis Report

EXAMINEE: Gabe
AGE: 51
GENDER: male
DATE OF BIRTH: -

EXAMINER: Ameer
REPORT DATE: June 12, 2019

About the Smart Toy

Your child was just tested using the Smart Diagnostic Toy, Version 1.This device is a game in the form of a cube. Each face of the toy contains a triangle, circle, or square along with an LED that lights up to different colors and a button that records user input. In each 10 round game your child was prompted to press the button corresponding to a particular shape and color combination. The accuracy and timing of your child's responses were recorded along with the motion of the cube.
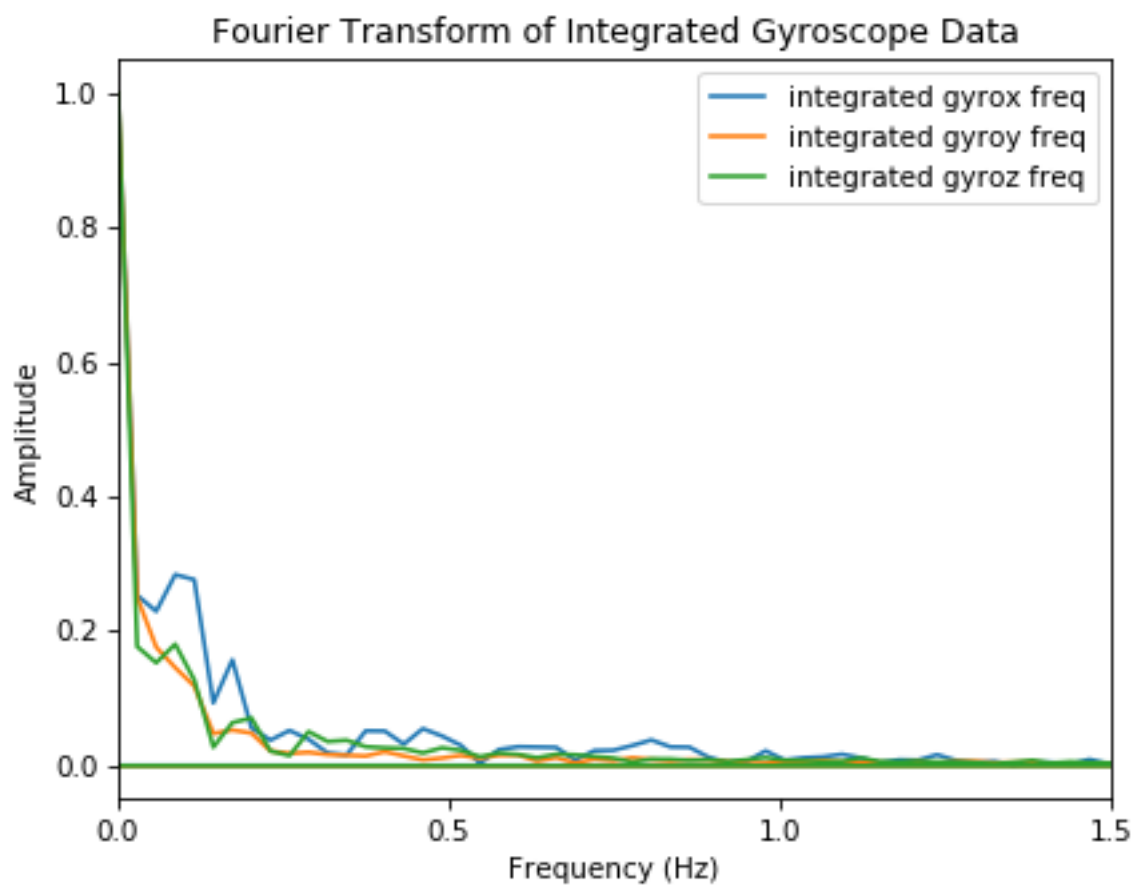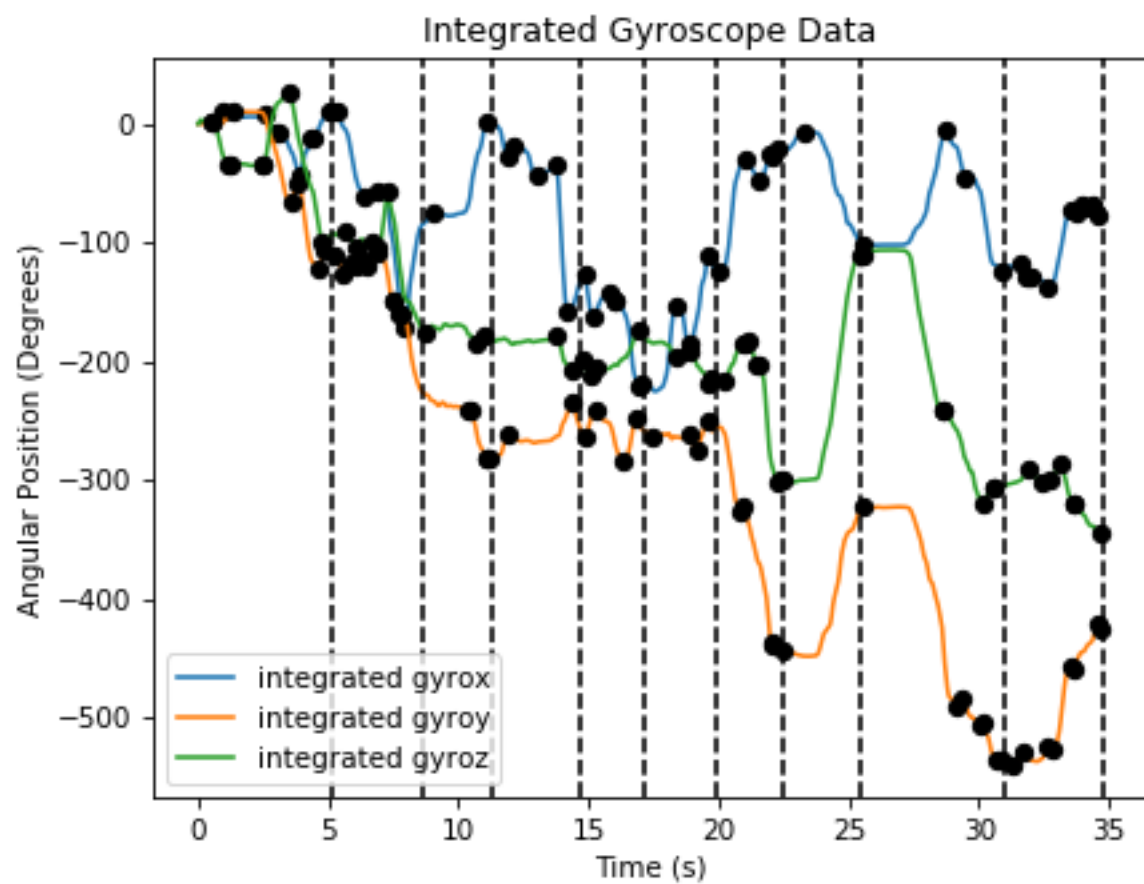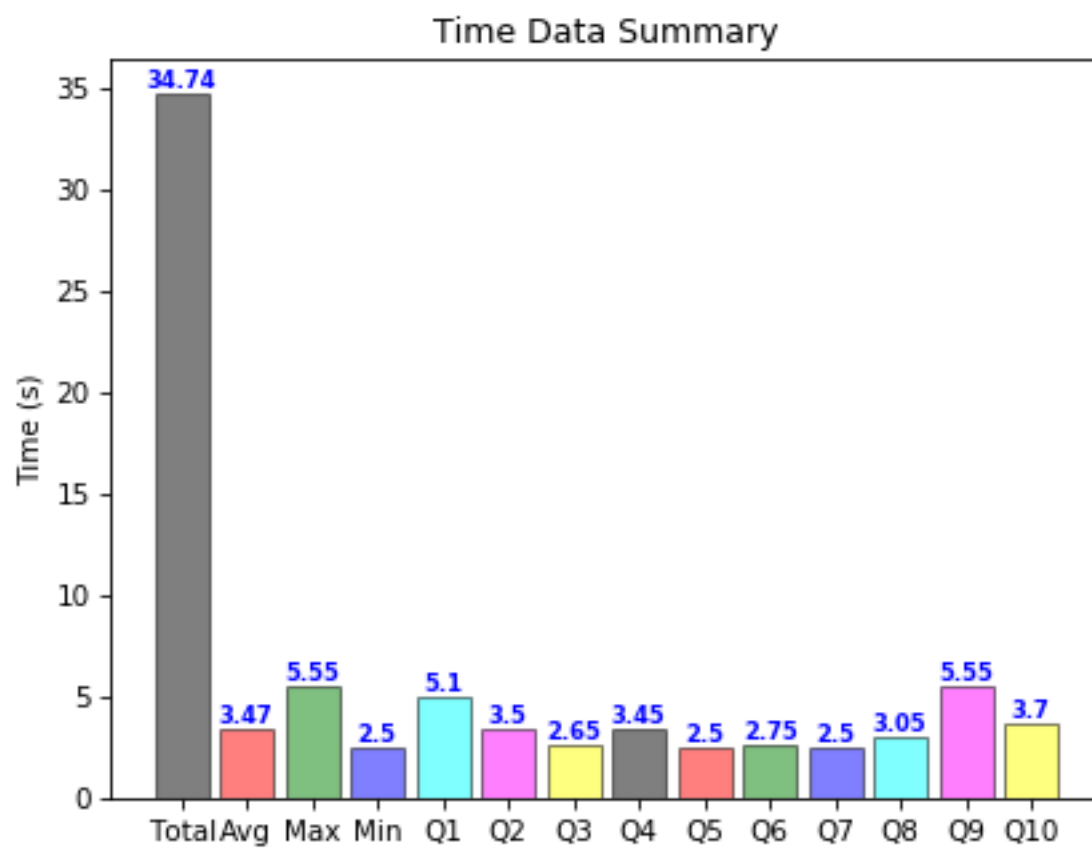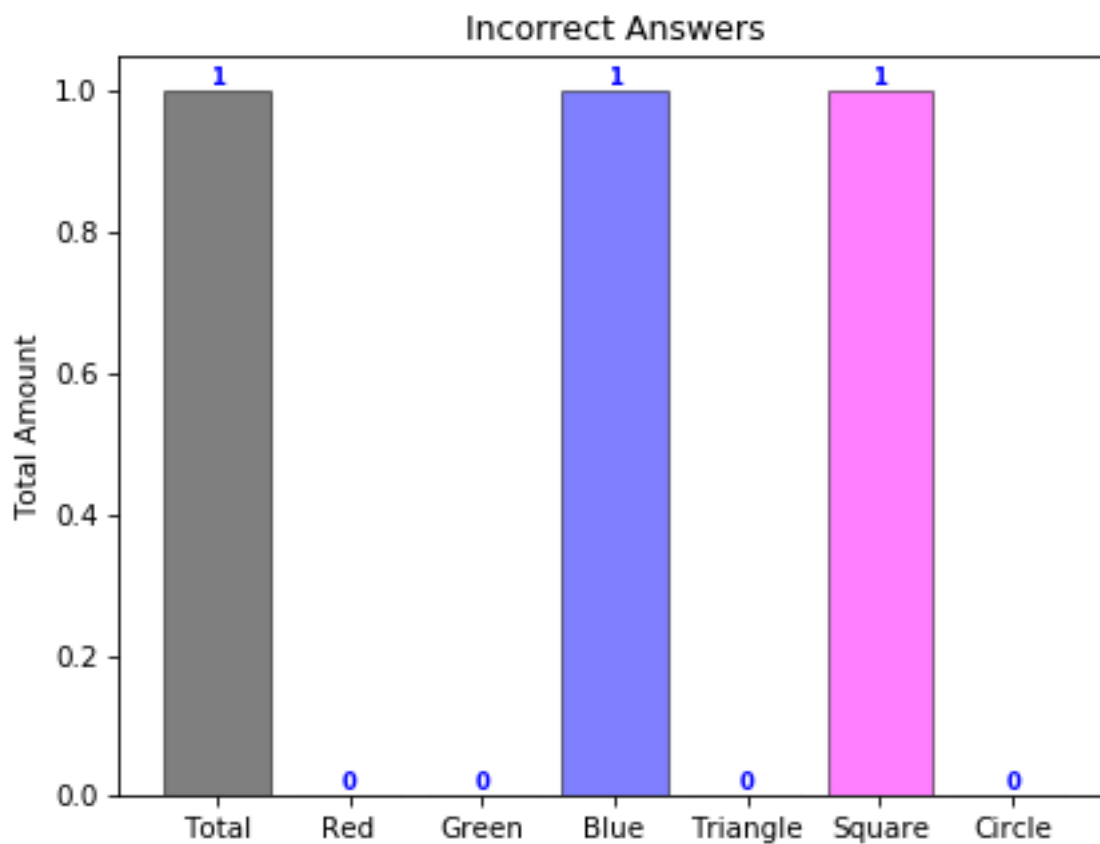
What is Being Monitored

The Smart Toy monitors a child's receptive communication skills, expressive communication skills, and fine motor skills.
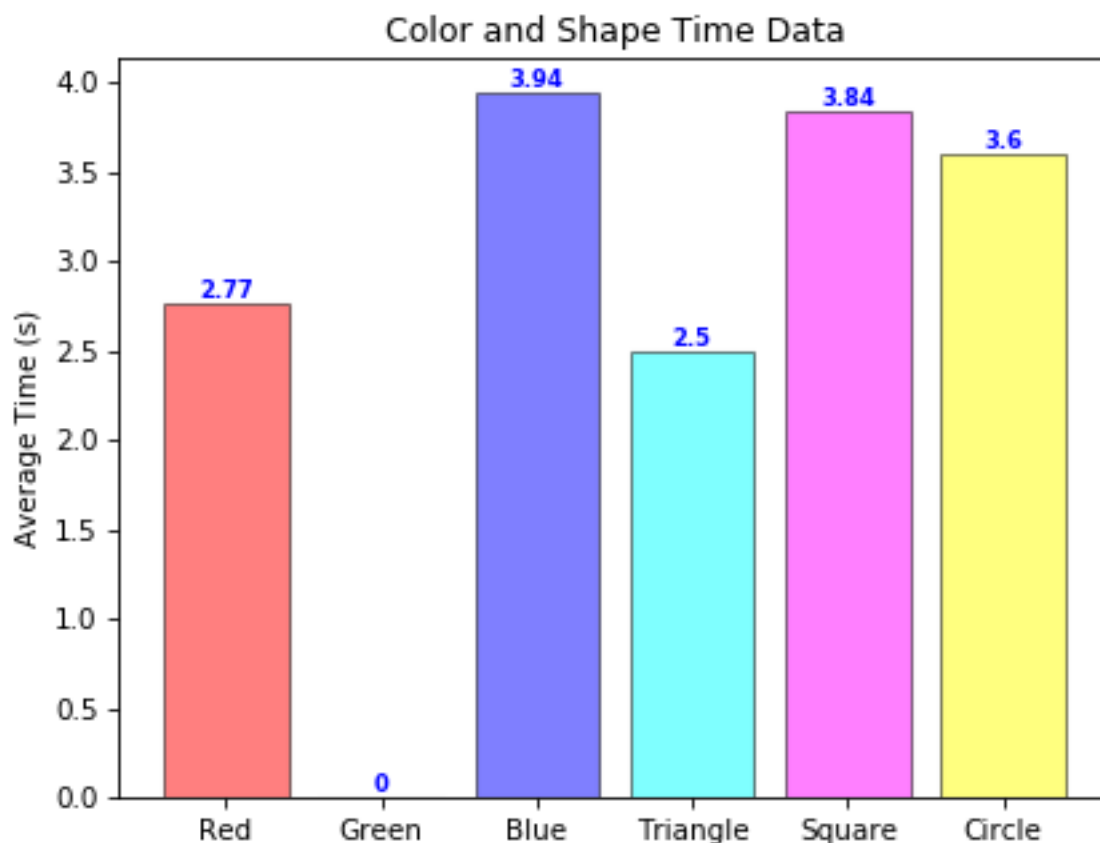
Receptive communication is the process of recognizing or understanding spoken words and directions. The examiner verbally prompts the child to do a particular task (in this case to press the button corresponding to a particular shape and color). The child is expected to understand the directions given and show that understanding by completing the task.

Expressive communication is the process of sending a message across or making something happen. The act of pressing any button on the cube or having any kind of response to the prompts is monitored. Fine motor skills refer to the movement or coordination of smaller muscles such as hands and fingers. The act of holding the cube, moving it around, and pressing its buttons are all activities that help give an insight into the child's fine motor skills.

Child's Results

Integrated Gyroscope Data

Angular Position (Degrees) vs Time (s)

Fourier Transform of Integrated Gyroscope Data

Amplitude vs Frequency (Hz)

Incorrect Answers

Time Data Summary

Color and Shape Time Data

	Score	Time (s)	Prompt	Response
1	1.0	5.1	Blue Square	Blue Square
2	1.0	3.5	Blue Square	Blue Square
3	1.0	2.65	Red Circle	Red Circle
4	1.0	3.45	Red Circle	Red Circle
5	1.0	2.5	Red Triangle	Red Triangle
6	1.0	2.75	Blue Circle	Blue Circle
7	1.0	2.5	Red Triangle	Red Triangle
8	1.0	3.05	Blue Square	Blue Square
9	1.0	5.55	Blue Circle	Blue Circle
10	0.0	3.7	Blue Square	Red Circle
Total	9.0	34.74	-	-

	Inflection Point Times (s)
Gx	[0.95 2.55 3. 3.05 3.9 4.35 4.45 5.05 5.1 5.3 6.4 6.9 7.95 9.05 11.1 11.9 12.1 13. 13.75 14.2 14.85 15.2 15.8 16. 16.05 16.9 17. 18.4 18.9 19.6 20.05 21. 21.55 22. 22.05 22.3 23.25 25.55 28.75 29.5 30.9 31.6 31.85 31.95 32. 32.65 33.6 33.75 33.95 34.3 34.4 34.55]
Gy	[1.35 3.55 3.85 4.6 4.85 5.25 5.6 5.85 6.05 6.25 6.45 6.9 7.45 7.5 7.7 7.8 10.4 10.45 11.05 11.1 11.2 11.9 14.35 14.9 15.25 16.35 16.85 17.45 18.85 19.15 19.6 20.85 20.95 22.05 22.1 22.45 25.6 29.15 29.4 30.05 30.15 30.7 30.75 30.85 31.35 31.7 32.65 32.85 33.55 33.65 34.55 34.7]
Gz	[0.5 0.55 1.15 1.25 2.45 2.5 3.5 4.75 5.7 6.05 6.7 6.9 7.3 8.75 10.7 11. 13.75 14.4 14.8 15.05 15.3 16.9 18.4 18.9 19.6 19.75 20.2 20.95 21. 21.1 21.5 21.55 22.3 22.4 22.45 25.45 25.55 28.6 28.65 30.15 30.55 30.6 31.9 32.4 32.75 33.15 33.65 33.7 34.65]

	Button Press Time (s)	Number of Inflection Points
1	5.1	21
2	8.6	21
3	11.25	10
4	14.7	9
5	17.2	15
6	19.95	11
7	22.44	18
8	25.5	4
9	31.04	18
10	34.74	26
Total	34.74	153
Avg	3.47	15.3

	Gx	Gy	Gz
Data Points	[695]	[695]	[695]
Sum	[-50802.72]	[-195981.28]	[-124142.67]
Mean	[-73.1]	[-281.99]	[-178.62]
Median	[-67.7]	[-266.5]	[-183.75]
Standard Deviation	[60.42]	[151.83]	[91.75]
Minimum	[-225.1]	[-539.02]	[-345.3]
Maximum	[11.6]	[9.98]	[26.65]

Rating	Total Score	Total Time (s)	Avg Inflection Points
0	0	>55	>70
1	1	50 - 55	63 - 70
2	2	45 - 50	56 - 63
3	3	40 - 45	49 - 56
4	4	35 - 40	42 - 49
5	5	30 - 35	35 - 42
6	6	25 - 30	28 - 35
7	7	20 - 25	21 - 28
8	8	15 - 20	14 - 21
9	9	10 - 15	7 - 14
10	10	0 - 10	0 - 7