AULA nesplora

Full name: Sandra Anonymous

Gender: Female

Chronological Age: 7 years-old

Date of Test Administration: 11/29/2010

This report is aimed to be used by the test administrator as a support for interpretation. This report must not be used as the unique resource for the clinical diagnosis or intervention.

Full name:	Sandra Anonymous
Gender:	Female
Date of birth:	10/06/2003
Chronological Age:	7 years-old

Date of Test	the 11/29/2010 at 10:56
Time to completion:	0:12:34
Used scale:	Female 7 years.

Clinician's notes concerning history, observation and other test data:

She is a chatterbox in the classroom, she does not pay attention to the teacher and she is always in a bad mood. They want to know if it could be due to ADHD.

Observation notes from the AULA administration:

No comments

1 AULA EVALUATION REPORT

1.1 General Description

AULA NESPLORA is a continuous performance test (CPT) performed in a virtual reality classroom. This is accomplished by having the child wear a specially developed set of glasses containing a visual screen, headphones and movement sensors. The AULA CPT is designed to evaluate multiple aspects of attention, impulsivity, distractibility, motor activity and processing speed.

The virtual classroom is presented to the child from the perspective of a pupil's desk. The program continuously shifts the child's view of the classroom based on their head movements, providing them with the impression of actually being inside the classroom.

On the virtual blackboard and through the audio input, a series of stimuli are presented. The child responds according to instructions provided by the virtual teacher. The test consists of two tasks. In the first task, the child presses a switch anytime the stimulus on the blackboard is different from the identified target stimulus. On the second task, the child presses a switch anytime he/she hears or sees the target stimulus.

The report generated by AULA NESPLORA provides extensive graphics, tables and narrative reports. Obtained T-scores and percentiles are presented. The following summarizes the interpretation of T-scores and percentiles:

T-SCORE	PERCENTILE	INTERPRETATION
20 - 30	<2nd	Very good performance
31 - 40	2nd - 15th	Good performance
41 - 60	17th - 83rd	Average
61 - 70	85th - 98th	Below average performance
71 - 80	98th - 99th	Poor performance

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Clinic Address, City

2 Main indices

Normalized T score
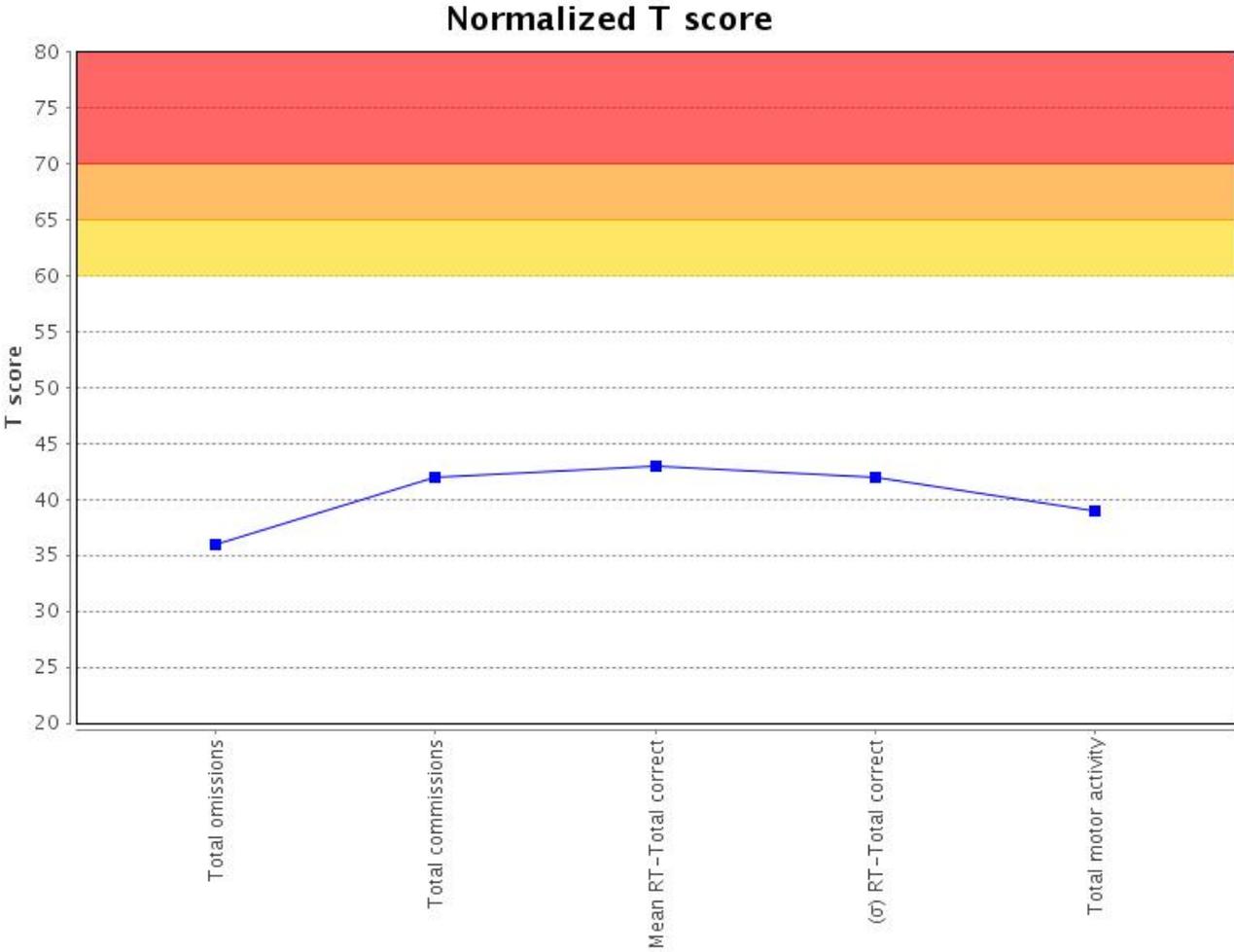
	Raw	Percentile	T scores
Total omission errors	6.0	8	36
Total commission errors	7.0	22	42
Mean RT-Total correct answers	910.04	23	43
(σ) Standard deviation RT-Total correct answers	341.03	20	42
Total motor activity	0.28	13	39

2.1 Index description

Total omission errors

Omission errors occur when Sandra must respond to the target stimulus but omits to do so. Omission errors are considered a measure of selective and unfocused attention. Sandra has obtained a score of 6 in Total omission errors. These data correspond to a percentile of 8 and a T-score of 36. This reflects a high performance.

Total commission errors

Commission errors occur when the target stimulus does not appear but the child presses the switch impulsively. Commission errors reflect a lack of response inhibition and lack of motor control Sandra has obtained a score of 7 in Total commission errors. These data correspond to a percentile of 22 and a T-score of 42 which indicates a normal performance.

Mean RT (Response Time) over Total Correct Answers

Mean reaction time is a highly reliable measure of processing speed and answer consistency. It also reflects attention ability. Sandra has obtained a score of 910.04 in Mean RT-Total correct answers. This data corresponds to a percentile 23 and a T score of 43 with respect to the normative sample, which indicates a normal performance.

(σ) Standard deviation from RT (Responde time) over Total Correct Answersal

Deviation of reaction time is a measure of variability and answer inconsistency, and it can be a measure of decrease in vigilance. Sandra has obtained a score of 341.03 in (σ) Standard deviation RT-Total correct answers. These data corresponds to a percentile of 20 and a T score of 42 with respect to a normative sample, which indicates a normal performance.

Total motor activity

Total motor activity is measured by the sensor from the glasses. It evaluates the child's head movements while he/she performs the exercise. That is, whether he/she has moved a lot or a little or in an unnecessary manner. Sandra has obtained a score of 0.28 in Total motor activity. This data corresponds to a percentile of 13 and a T score of 39 with respect to the normative sample, which indicates a high performance.
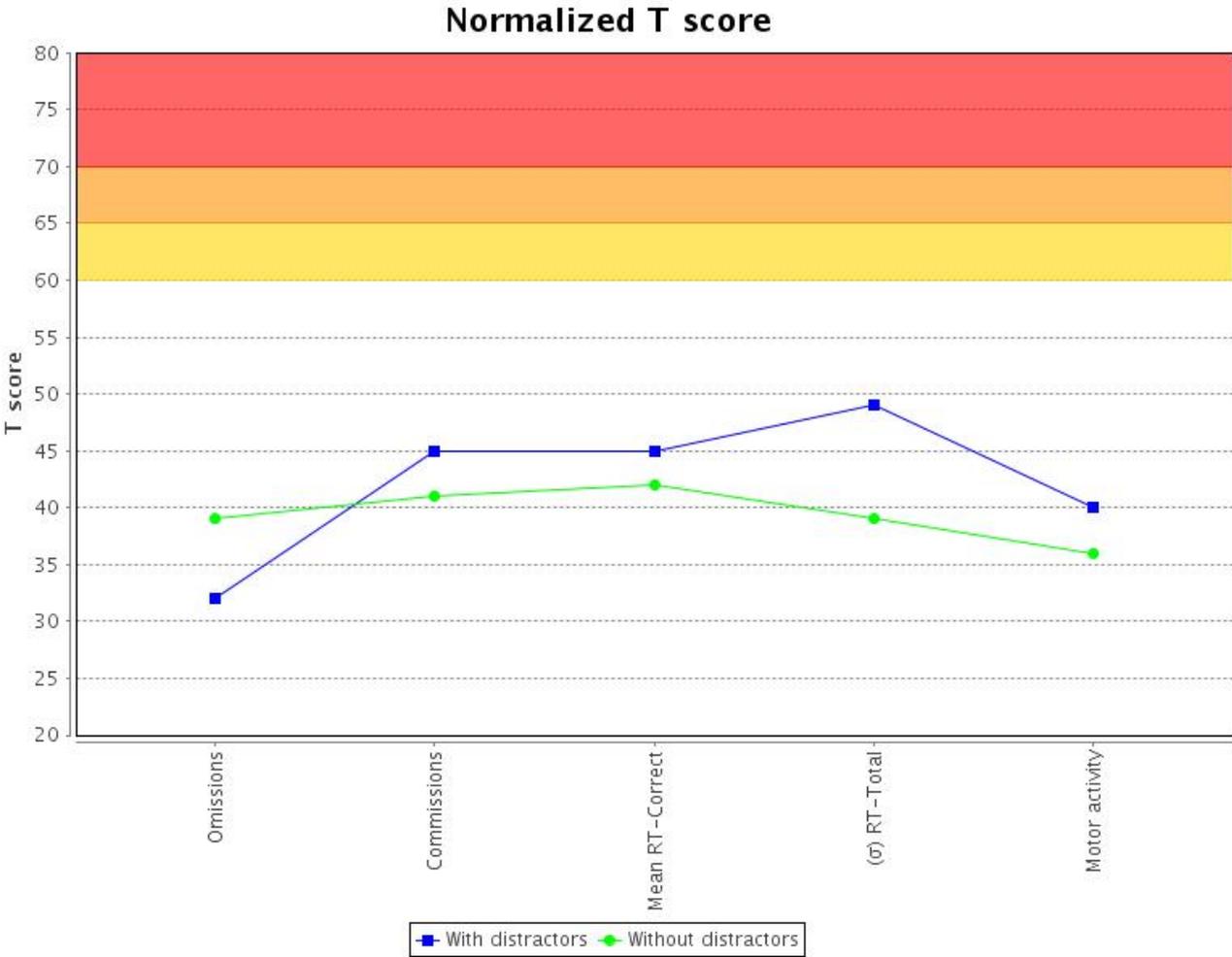
3 Task performance in presence and absence of distractors

AULA has analyzed Sandra's performance in the presence and absence of distractors. The following figure and table demonstrate how much the distractors affected Sandra during the test administration.


Normalized T score

|	With distractors			Without distractors		
	Raw direct scores	Percentile	T scores	Raw direct scores	Percentile	T scores
Omissions	1.0	3	32	5.0	13	39
Commissions	3.0	32	45	4.0	18	41
Mean RT-Correct answers	924.27	30	45	898.48	22	42
(σ) Standard deviation RT-Correct answers	381.98	47	49	303.22	13	39
Motor activity	0.3	15	40	0.29	9	36

3.1 Motor activity graphics with relation to the distractors

These graphics reflect Sandra's activity as compared to distractors. Peak of activity related to the distractor means that Sandra followed the distractor with his/her head, shifting attention away from the task.

Task 1
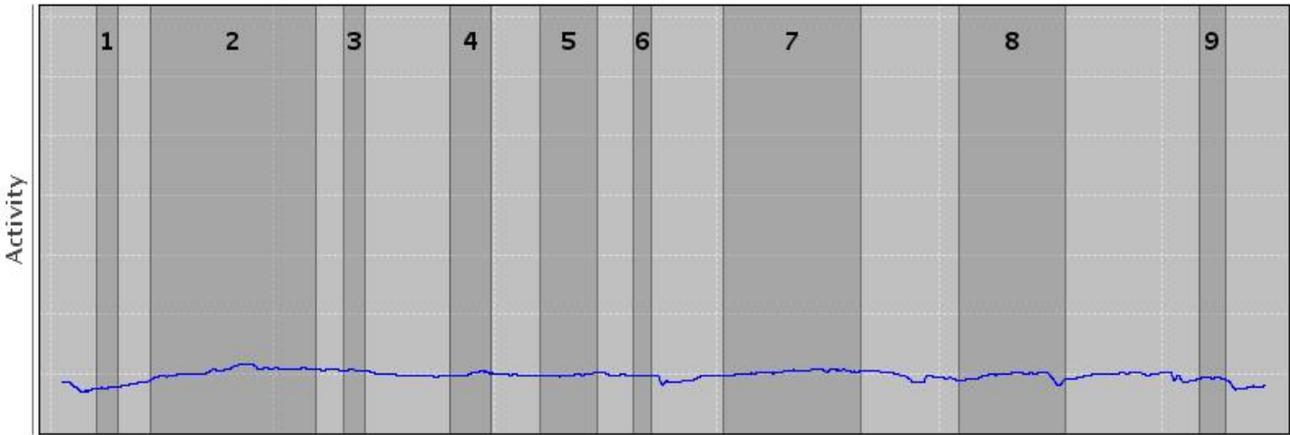
Task 2
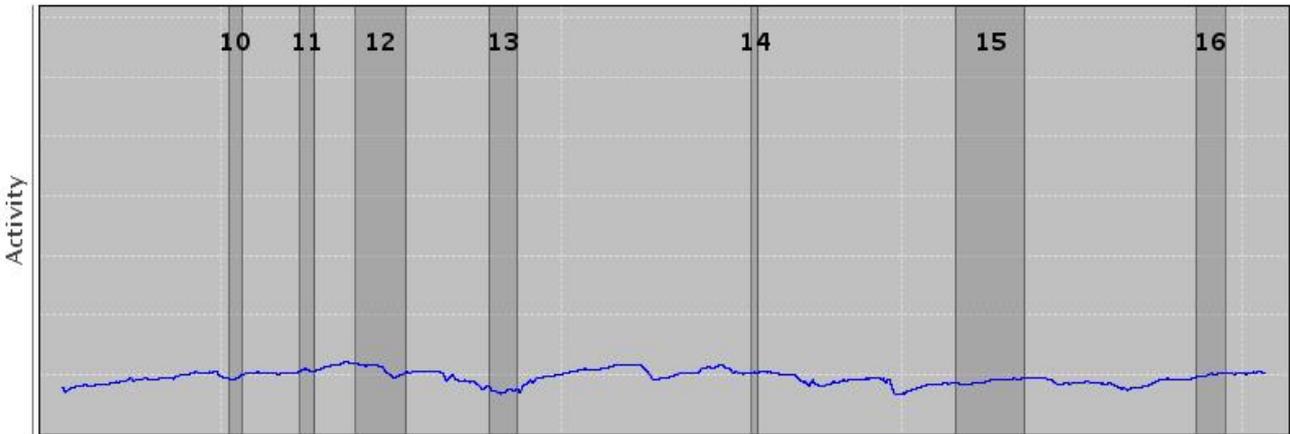
Task 1 (NO-X)

1. Paper ball
2. Teacher's walk
3. Whispering at the right
4. Teacher's ballpen drops
5. A boy passes a note
6. Someone coughs at the left
7. A boy handles a piece of paper to the teacher
8. An ambulance passes
9. The bell rings

Task 2 (X)

10. Whispering at the left
11. Someone coughs at the right
12. Step noise from the corridor
13. A kid at the left raises his hand
14. Someone is laughing
15. Somebody knocks on the door
16. A kid at the right raises his hand

Clinic
logo

4 Type of exercise

In AULA, Sandra performed two tasks. In the first task, Sandra must control impulses in the face of multiple stimuli. In the second task, a monotonous presentation of stimuli is designed to challenge sustained attention and concentration. The following table and graph demonstrate Sandra's performance task by task.

Normalized T score
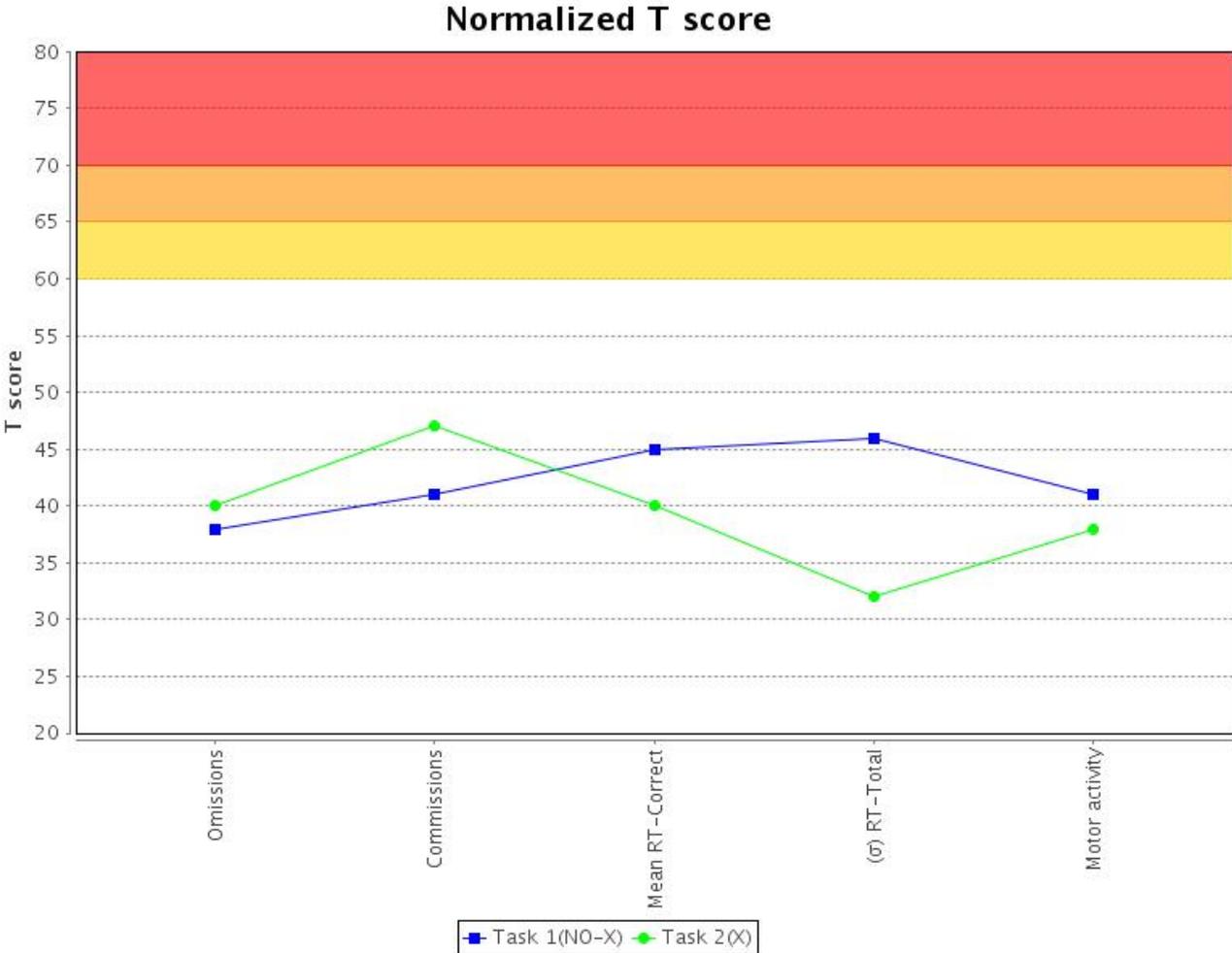
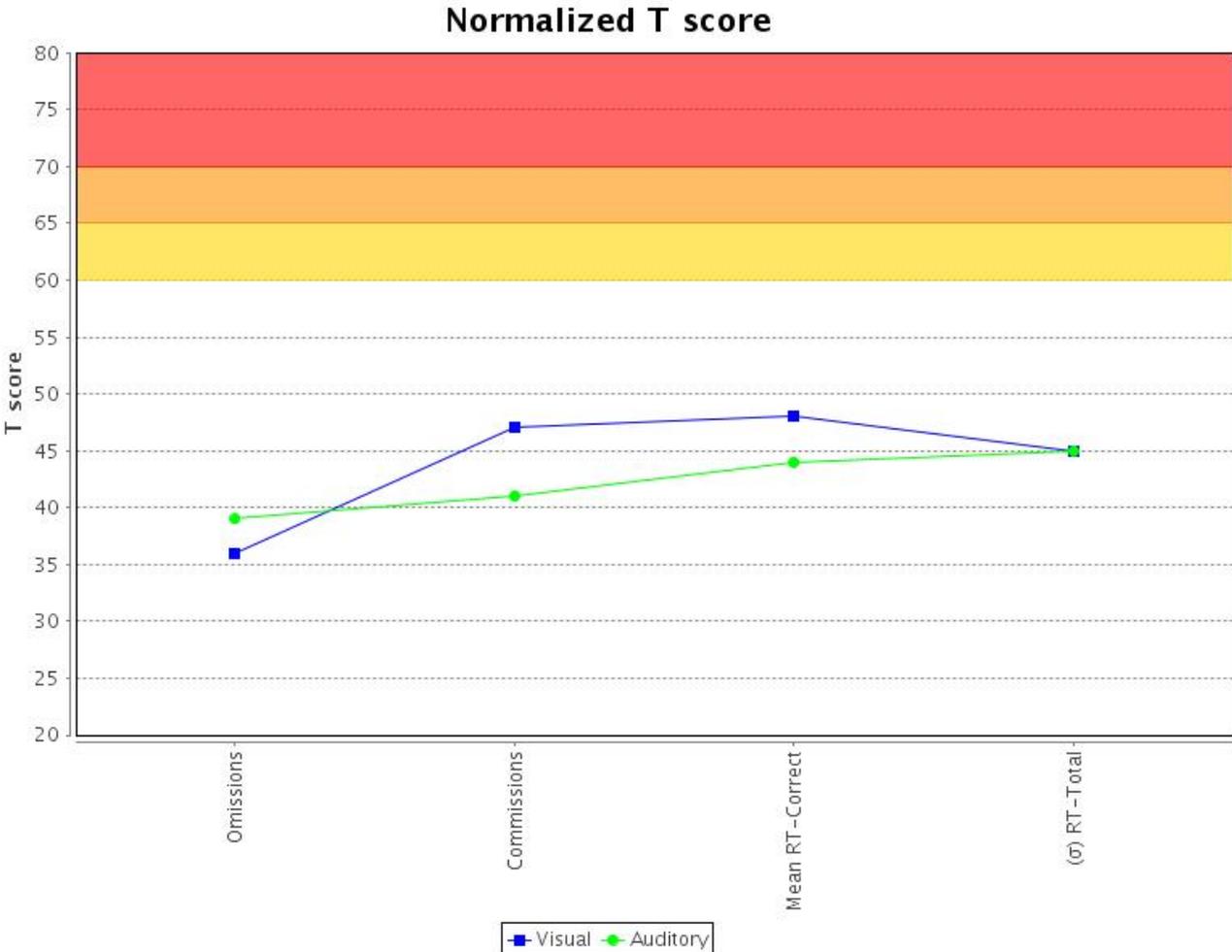|	Task 1 (NO-X)			Task 2 (X)		
	Raw direct scores	Percentile	T scores	Raw direct scores	Percentile	T scores
Omissions	5.0	12	38	1.0	17	40
Commissions	5.0	18	41	2.0	40	47
Mean RT-Correct answers	902.4	32	45	940.37	15	40
(σ) Standard deviation RT-Correct answers	364.33	32	46	223.34	3	32
Motor activity	0.28	18	41	0.27	12	38

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5 Auditory and Visual Sensory Channels

Sandra must respond to auditory and visual stimuli during the AULA tasks. The differences between auditory and visual processing is compared below in graph and tabular form.

Normalized T score

|	Visual			Auditory		
	Raw direct scores	Percentile	T scores	Raw direct scores	Percentile	T scores
Omissions	5.0	8	36	1.0	13	39
Commissions	5.0	37	47	2.0	18	41
Mean RT-Correct answers	780.73	42	48	1042.36	27	44
(σ) Standard deviation RT-Correct answers	284.91	30	45	342.96	30	45

6 Motor activity

The graphics below demonstrate Sandra's head movement throughout the test. The yellow framework represents the zone in which the virtual blackboard can be seen. Movement out of that zone makes it impossible for the child to correctly perform the visual task. The dot diagram below provides a visual image of Sandra's attention to the blackboard and to the general task. If Sandra has looked to the blackboard's zone and has not performed the task correctly, internal distractors should be considered (see Quality of Attention).

	Raw direct	Percentile	T scores
Total motor activity	0.28	13	39
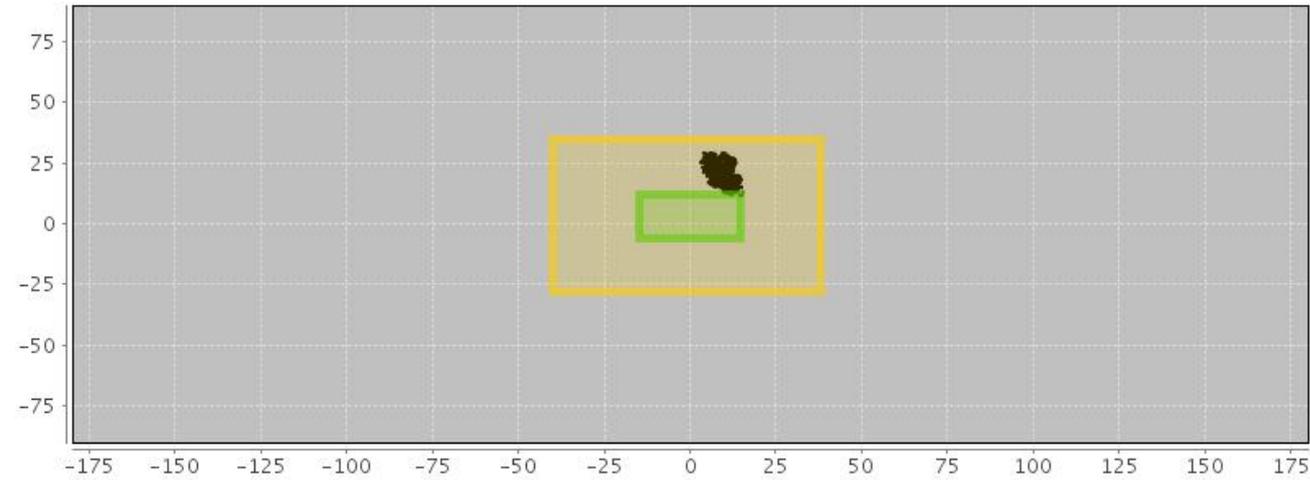
The index of motor activity can reflect many phenomena, including: a tendency to become distracted by external stimuli (see distractor graphic), motor activity with no relation to distractors or in the case of low a activity but poor task performance or possible internal distractors (see quality of attention graphic).
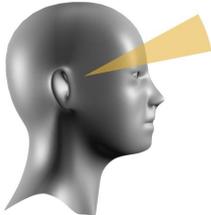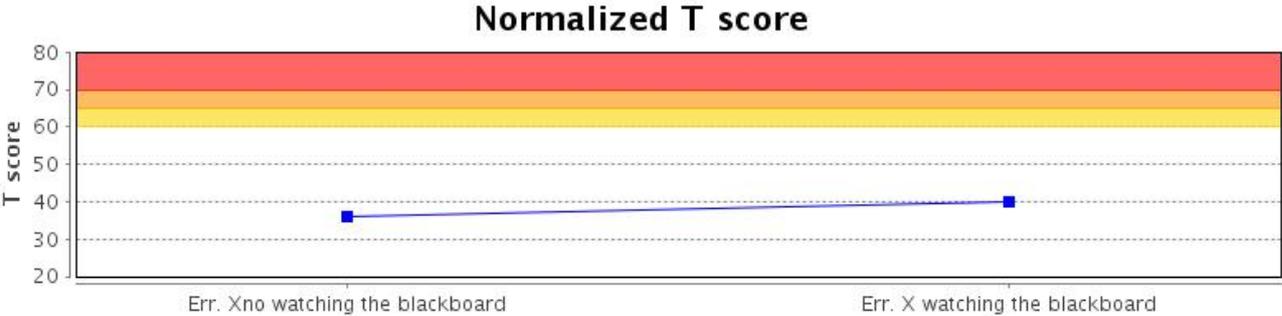
7 Attention focus quality

This measure unique to the AULA tasks, provides an observation of the child's attention when they are focused on the blackboard. These data compliment data from motor activity, providing input whether Sandra's performance varies depending on either internal or external stimuli.

	Raw	Percentile	T scores
Total errors in TASK 1 (X-NO) watching the blackboard	9.0	8	36
Total errors in TASK 2 (X) watching the blackboard	1.0	15	40

At 03 17 2014

Doctor Example

Sandra Anonymous

03/17/2014

Profile of Sandra Anonymous on 29/11/2010

T score

Total omissions
Total commissions
Mean RT-Total correct
(σ) RT-Total correct
Total motor activity
Vis omissions
Vis. commissions
Mean RT-Correct vis.
(σ) RT-Correct vis.
Aud. omission
Aud. commissions
Mean RT-Correct aud.
σ RT-Correct aud.
Omissions with dist.
Commission with dist.
Mean RT-Correct with dist.
σ RT-Correct with dist.
Activity with dist.
Omissions without dist.
Commission without dist.
Mean RT-Correct witho...
σ RT-Correct without dist.
Activity without dist.
Omissions Xno
Commissions Xno
Mean RT-Correct Xno
(σ) RT-Correct Xno
Activity Xno
Omissions X
Commissions X
Mean RT-Correct X
(σ) RT-Correct X
Activity X
Err. Xno watching t...
Err. X watching t...