



nesplora aula
**GUIDE TO THE
INTERPRETATION OF THE
NESPLORA AULA REPORT**

MAIN INDICES

Profile: Inattentive girl with slow reaction time	Pag. 3
Profile: Girl without attention problems	Pag. 4
Profile: Boy with slow reaction time	Pag. 5
Profile: Boy with tendency towards impulsivity, without attention problems	Pag. 6
Profile: Boy with ADHD diagnosis, combined type (hyperactive, impulsive, inattentive)	Pag. 7

DISTRACTORS

Profile: Inattentive girl with slow reaction time	Pag. 9
Profile: Girl without attention problems	Pag. 10
Profile: Boy with slow reaction time	Pag. 11
Profile: Boy with tendency towards impulsivity, without attention problems	Pag. 12
Profile: Boy with ADHD diagnosis, combined type (hyperactive, impulsive, inattentive)	Pag. 13

TASKS

Profile: Inattentive girl with slow reaction time	Pag. 15
Profile: Girl without attention problems	Pag. 16
Profile: Boy with slow reaction time	Pag. 17
Profile: Boy with tendency towards impulsivity, without attention problems	Pag. 18
Profile: Boy with ADHD diagnosis, combined type (hyperactive, impulsive, inattentive)	Pag. 19

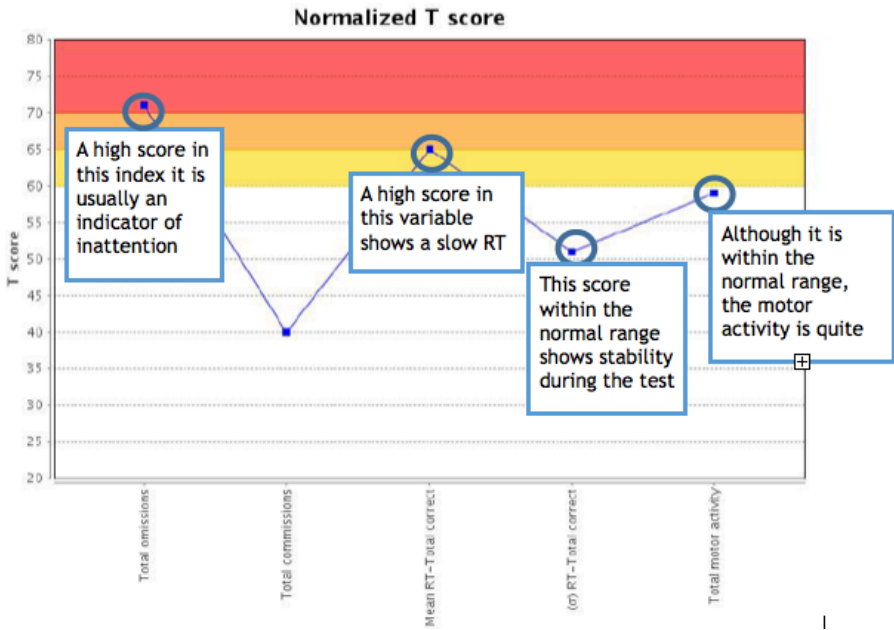
AUDITORY AND VISUAL SENSORY CHANNELS

Profile: Inattentive girl with slow reaction time	Pag. 21
Profile: Girl without attention problems	Pag. 22
Profile: Boy with slow reaction time	Pag. 23
Profile: Boy with tendency towards impulsivity, without attention problems	Pag. 24
Profile: Boy with ADHD diagnosis, combined type (hyperactive, impulsive, inattentive)	Pag. 25

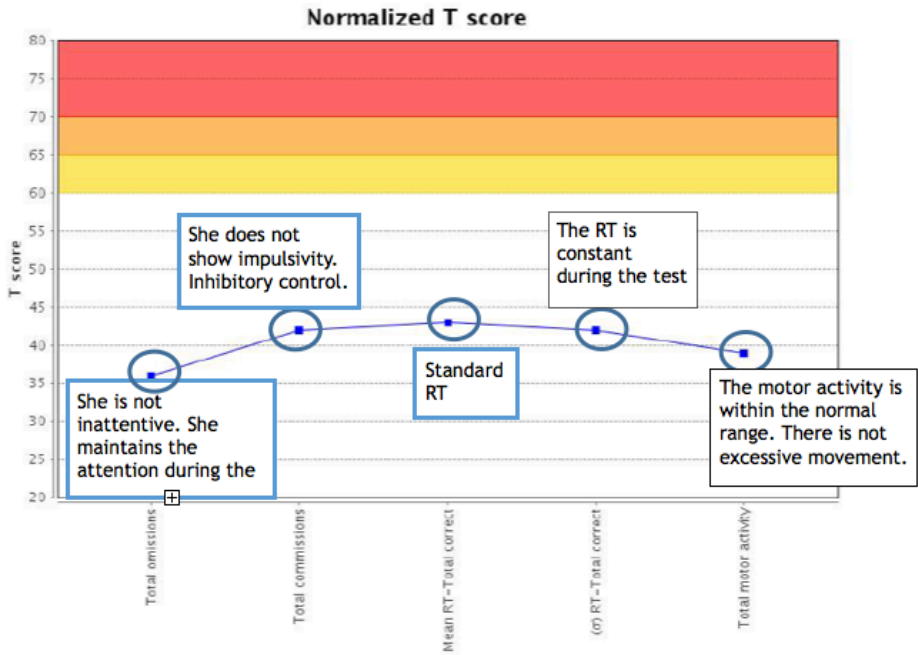
RELATED INDICES OF NESPLORA AULA

Pag. 26

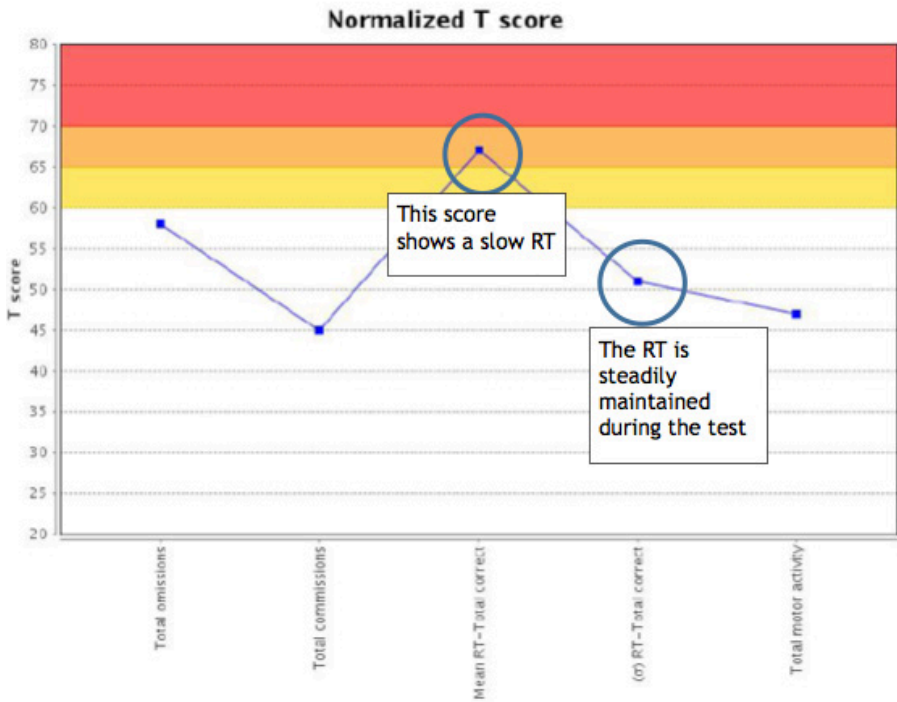
The **MAIN INDICES** of Nesplora Aula provide a global view about the performance of the child. However, it is necessary to go deeper into the other scores in order to know the complete attentional profile.



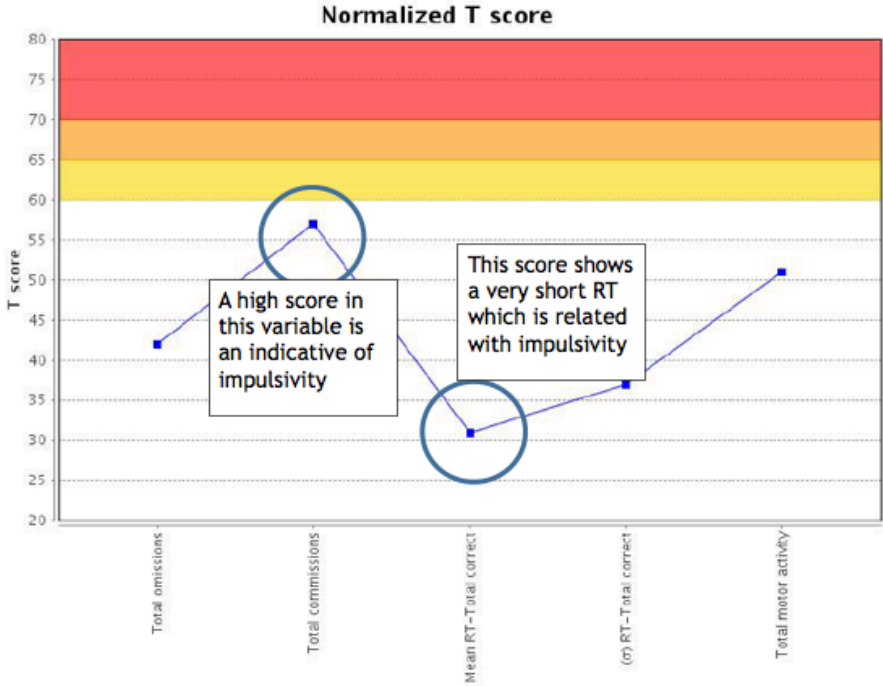
Profile: Inattentive girl with slow reaction time. The score on the omission index is very high so, it would show inattention. On the other hand, we can see that the reaction time (RT) (length of time that has elapsed since the stimulus appears until the child responds) is slow. Moreover, it is constant during the test since the deviation of the RT it is not too high. When the score of the motor activity is not too high, it could be because of the distractor or it could be sterile movement. Furthermore, we should note in this case that the score obtained in the commission's variable may be influenced by the high score of the omissions. If the girl does not pay attention during the task and she does not press the button for her inattention, she has no choice to make commission errors.



Profile: Girl without attention problems. In this case, the girls does not show inattention (low score in omissions), neither impulsivity (low score in commissions). She has a normal and steady RT and, her motor activity is also right. Considering the other graphics, the complete profile of the girl can be known in order to give some information about her learning mode. In this way, we can adapt the learning strategies to her profile and get a better performance.

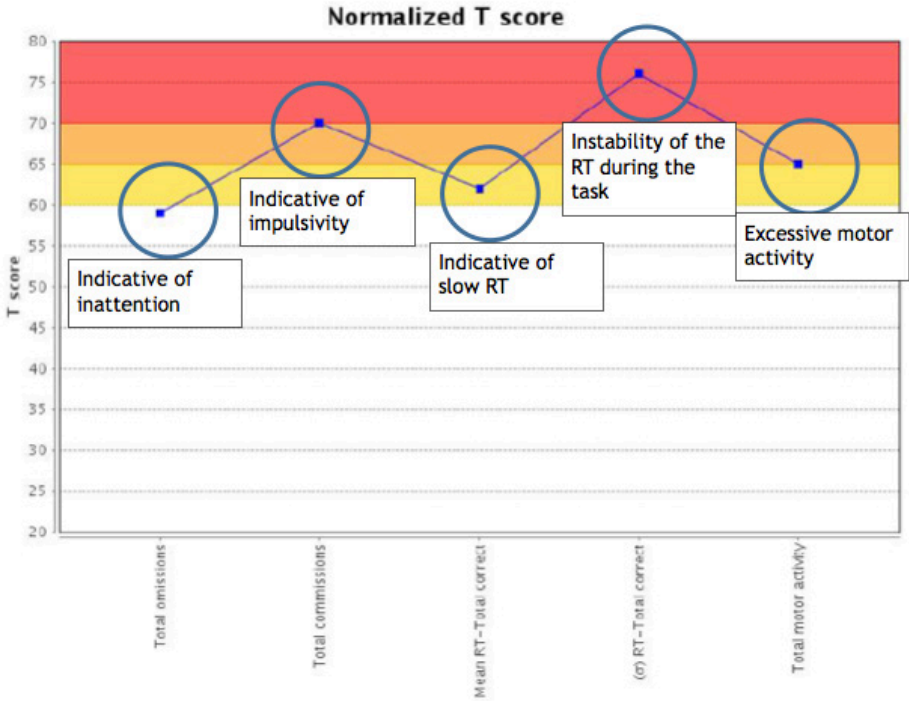


Profile: Boy with slow reaction time. In this case, the score on the omissions index, which is related to inattention, is close to the cut-off point, but it is still within the normal range. In this graphic, the focus is on the slow reaction time of the boy in the correct answers. Furthermore, we can see that this index is constant during the test, therefore, we could say that this is a slow RT profile but unaccompanied by inattention, impulsivity and neither, by hyperactivity.



Profile: Boy with tendency towards impulsivity, without attention problems.

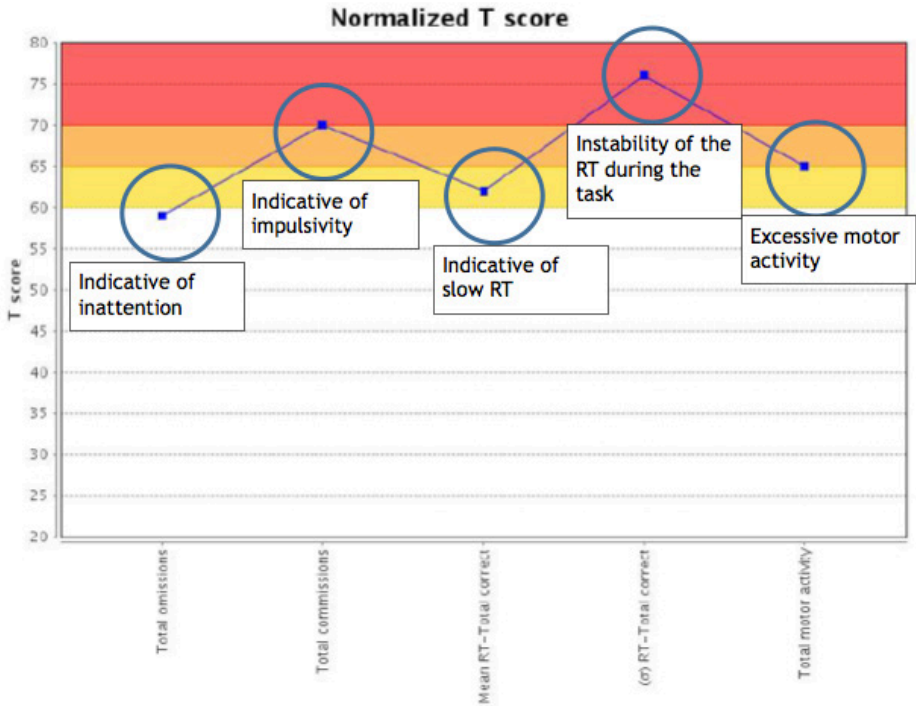
In the overall profile of this boy, we can see that he gets a higher score on the commission's index than his reference population and, this score indicates tendency towards impulsivity. The RT time in cases of impulsivity is usually shorter, they normally respond rapidly to the stimuli. Moreover, the RT during the test is constant. In terms of omissions, he gets a normal score so, we can say that he has not sustained attention problems. He has not an excessive motor activity either.



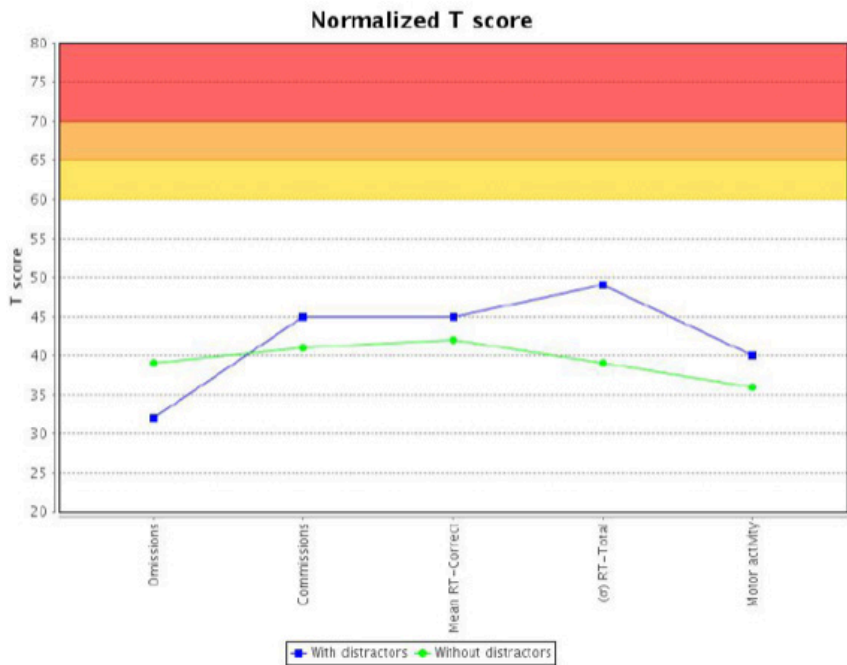
Profile: Boy with ADHD diagnosis, combined type (hyperactive, impulsive, inattentive).

The scores displayed in this graphic, show the performance of a boy with ADHD combined type diagnosis in Nesplora Aula test. If we analyse the variables separately, first of all, we can see that the child has obtained a score on the omissions index (associated with inattention) which is in the limit of normality. On the other hand, the score obtained on commissions is high, that is, he has pressed the button many times when he should not and this can be indicator of impulsivity. Apart from that, we can see that the RT of the child is high and it is not constant during the test; this inconstancy is often associated with a cyclic operation of the attention. Lastly, we can see that the motor activity is excessive. Observing the other graphics, we could know in which situations the boy shows more difficulties.

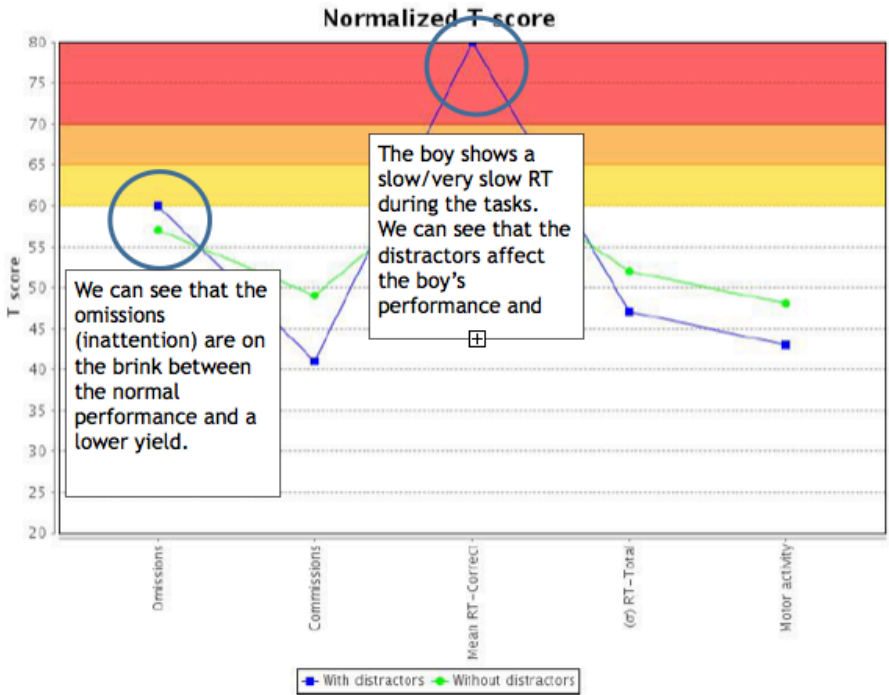
The **DISTRACTORS** of **Nesplora Aula**



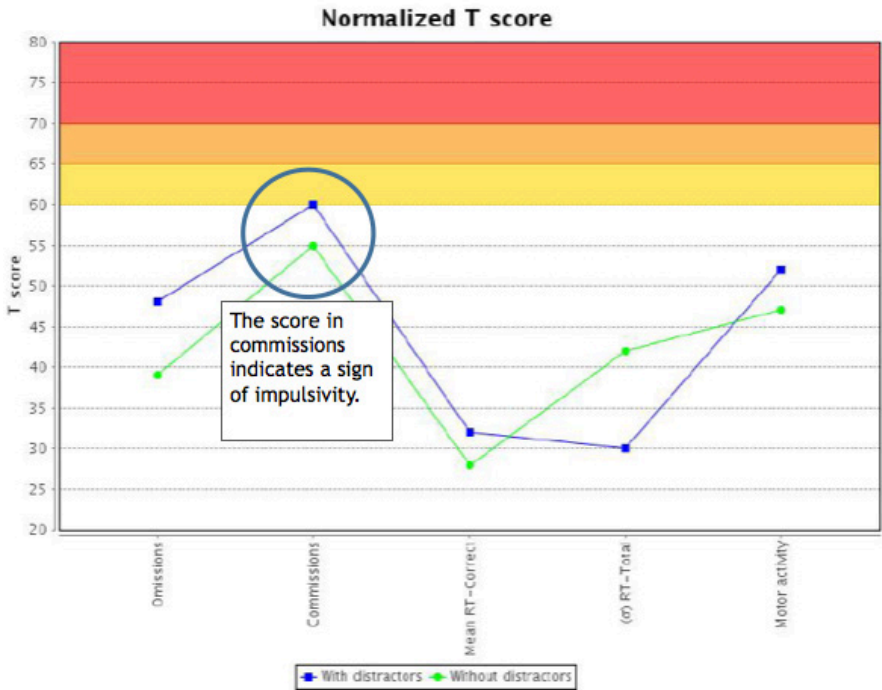
Profile: Inattentive girl with slow reaction time. As in the main indices, this girl shows inattention (omission errors) and a slow RT during the test. We can observe that the deviation of the RT varies more in one condition than in the other; with distractors, the RT is less constant. The typical distractors of the environment may affect the performance of the girl in the tasks. Even then, her performance is within the normal range and there is not a notable difference between these two scores. The motor activity of the girl should be taken into account since it is on the brink.



Profile: Girl without attention problems. This girl shows a profile without attention problems, either impulsivity or excessive motor activity. The performance of the girl with distractors as well as without them, is fine during the test.

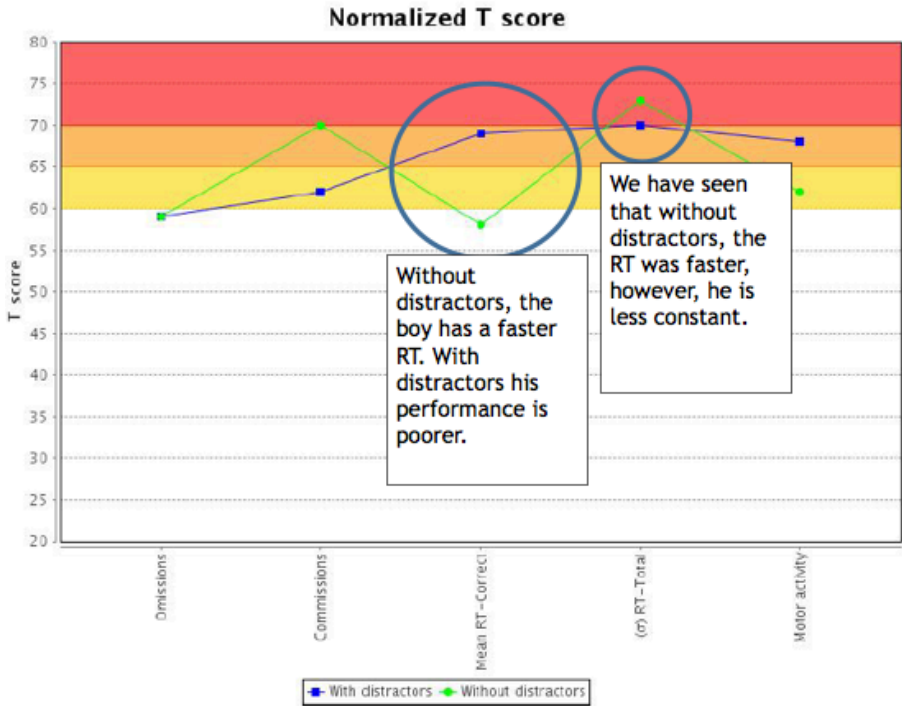


Profile: Boy with slow reaction time. In this case the most remarkable score, is the RT of the boy during Nesplora Aula test. We can see that with or without distractors, the boy has a poor performance but, in the condition with distractors, his RT increases. This indicates that the distractors affect in the increase of the RT of the boy.



Profile: Boy with tendency towards impulsivity, without attention problems. As previously stated, commissions are related to impulsivity and, in this case, we can see that the boy gets a high score in this index in comparison with the rest of scores, especially in the presence of distractors. Anyway, we can observe that the deviation of the RT is more consistent with distractors.

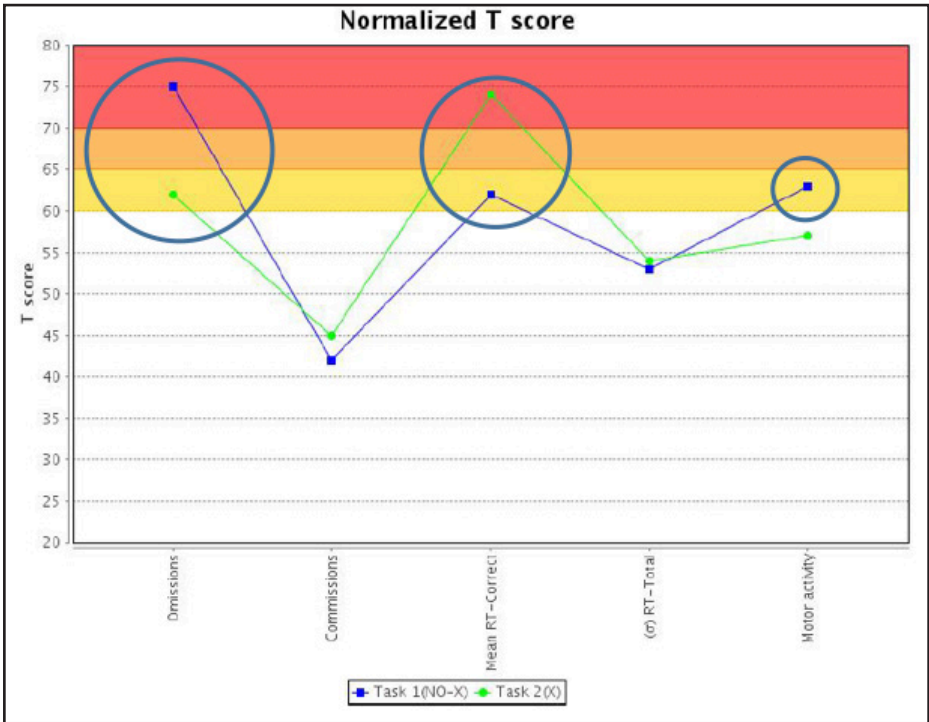




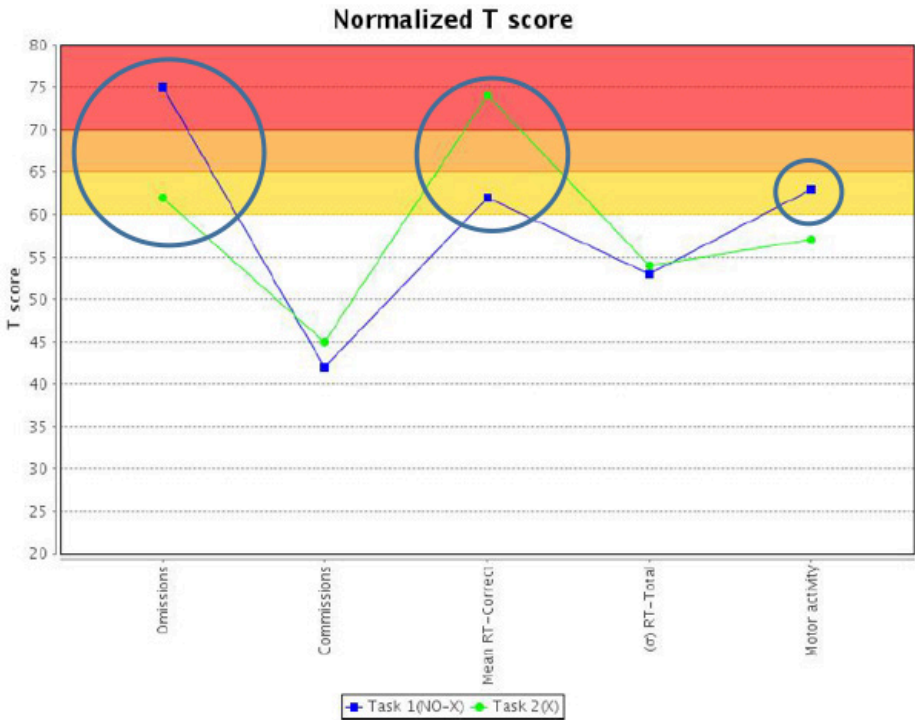
Profile: Boy with ADHD diagnosis, combined type (hyperactive, impulsive, inattentive). Comparing the two conditions of this graphic, that in presence of distractors, he commits less commissions but his RT increases. The scores indicate impulsivity, inattention, slow RT (especially with distractors) and excessive motor activity.

The **TASKS** of Nesplora Aula

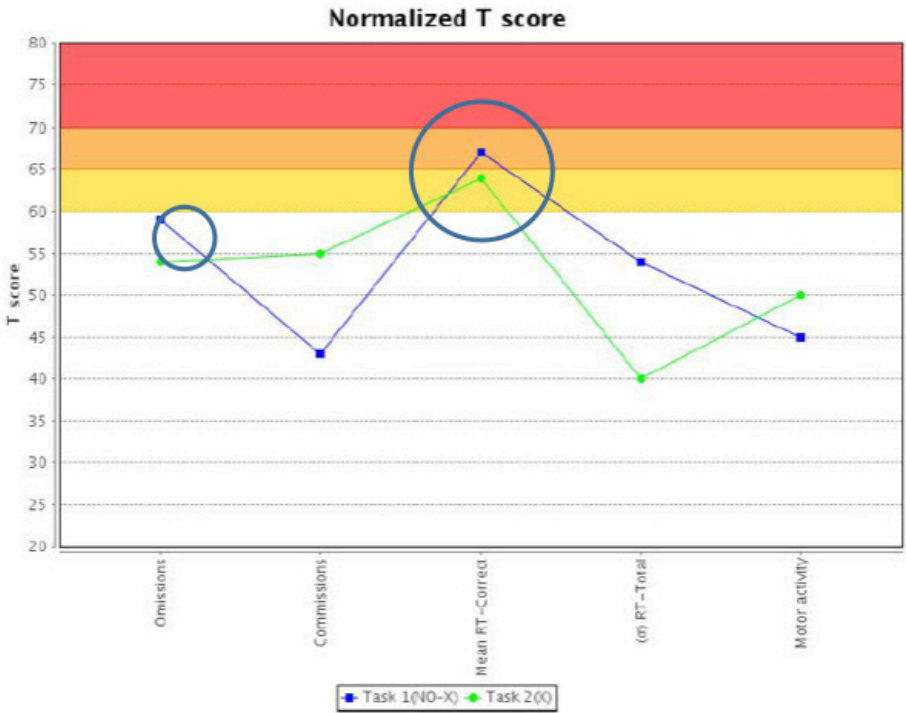
TIPE OF EXERCISE (NO-X/ X). The first task requests many responses, which generates hyperstimulation. In contrast, the second one, which requests less responses, generates a hypostimulating situation where, in general, is more difficult to maintain the sustained attention. This sequence tests the self-regulation capabilities of the child.



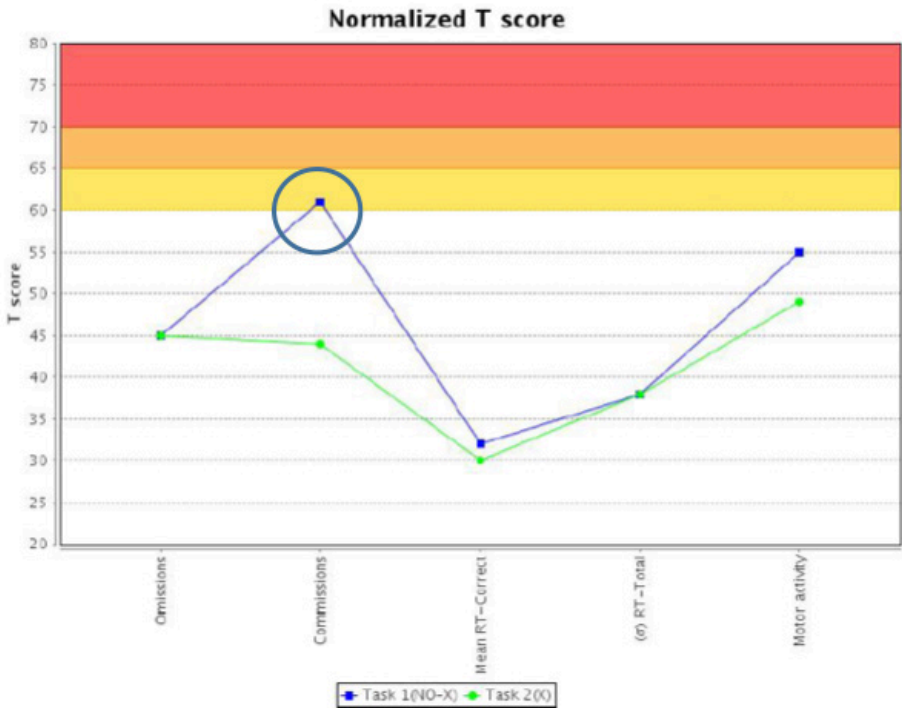
Profile: Inattentive girl with slow reaction time. Her inattentions stands out in this graphics, above all, in the No-X task where, despite the hyperstimulation, she does not respond to many stimuli. Her RT also stands out, especially in the X task where she only has to respond with the target stimuli. The motor activity should be observed in other graphics since it is higher in the No-X task.



Profile: Girl without attention problems. In this case, the girl achieves good results in all the indices of the test. We can see that the constancy of the reaction time varies slightly in the different tasks. In the first task (No-X), which is more stimulating than the second one, the RT is more inconstant in comparison with the normative group. In any case, the results obtained show good ability to concentrate, good capacity for inhibition, adequate RT and she does not show excessive motor activity.



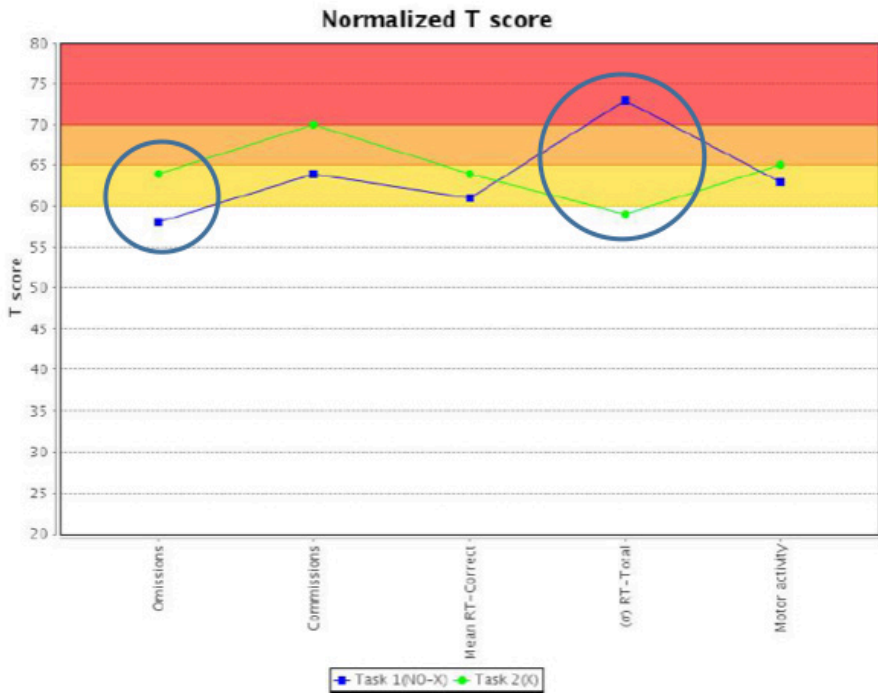
Profile: Boy with slow reaction time. As can be seen in the results obtained, the most remarkable index is the slow reaction time of the boy assessed. The time between stimuli changes depending on the answers of the child and, this way, we obtain a reliable RT index. The boy does not show impulsivity and either, an excessive motor activity. The index of omissions should be observed in other graphics since it is on the limit, mainly, in the No-X task.



Profile: Boy with tendency towards impulsivity, without attention problems.

In this case, we can observe a clear example of different execution in the tasks in a certain variable. The score of the commissions, which is related to impulsivity, varies so much from No-X task to X. In the No-X task is required to press the button more times than in the X task, consequently, it is easier for a person with tendency towards impulsivity to make commission mistakes because of the inertia of the previous task.

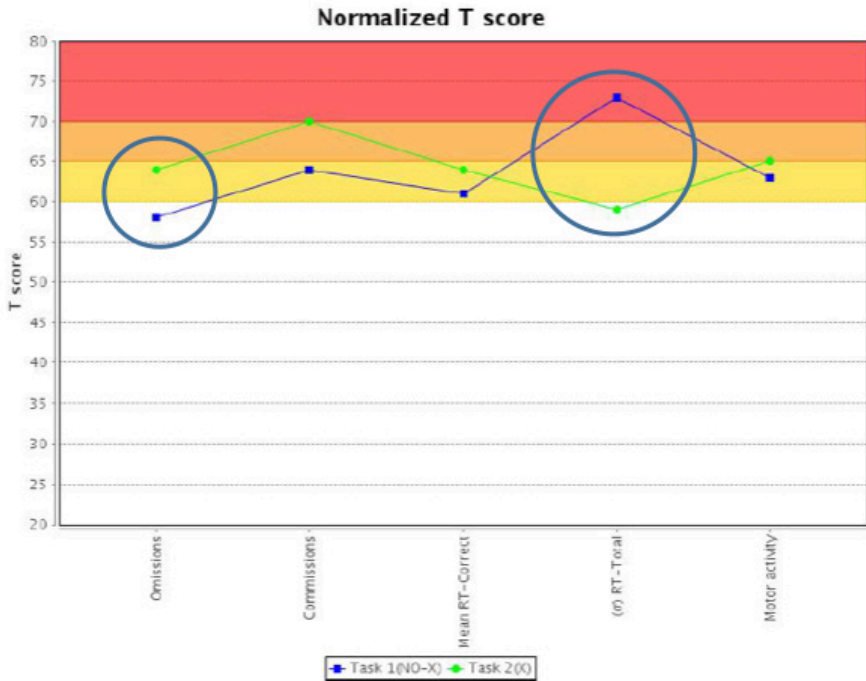




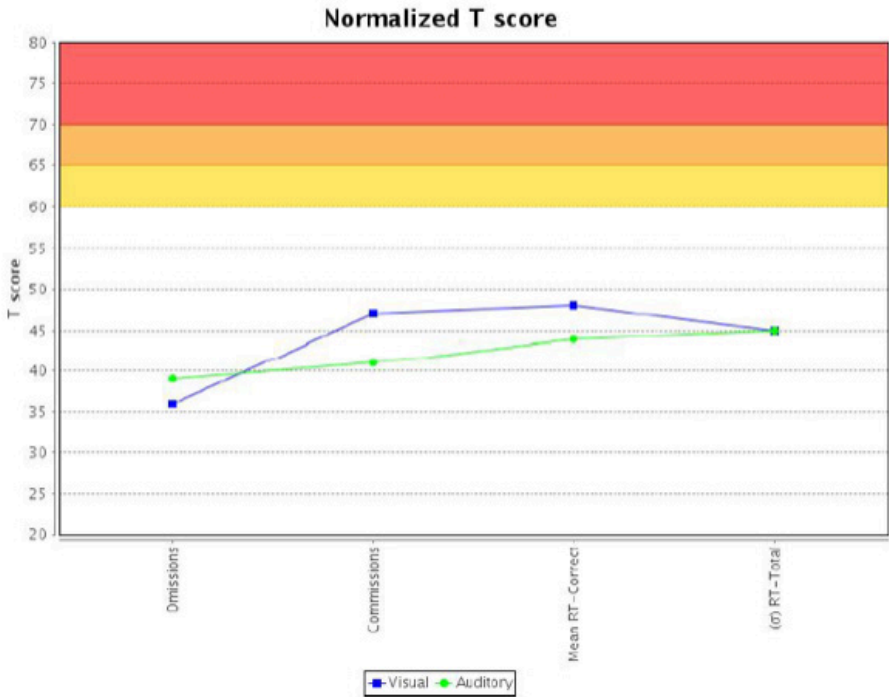
Profile: Boy with ADHD diagnosis, combined type (hyperactive, impulsive, inattentive). He shows a little better performance in the No-X task, although the deviation of the RT is higher in this condition. The inconsistency in the task may be the result of responding constantly for a period of time, consequently the response rate increases and, when he makes a mistake, he starts responding slower again. Anyway, we can observe in the graphic that the scores obtained in the test indicate inattention, impulsivity, slow RT and excessive motor activity.

Sensory Channels

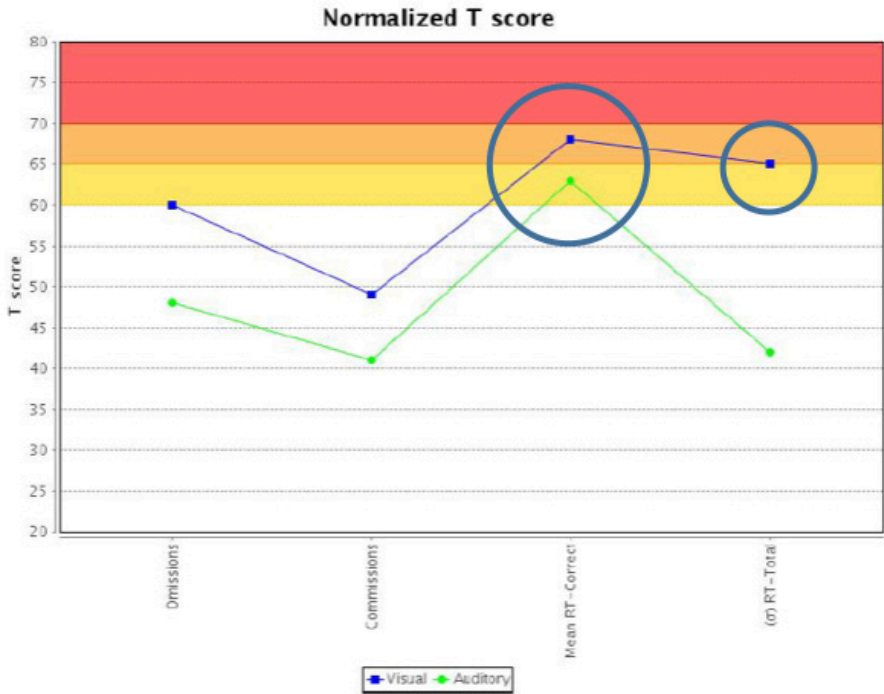
Auditory and visual processing



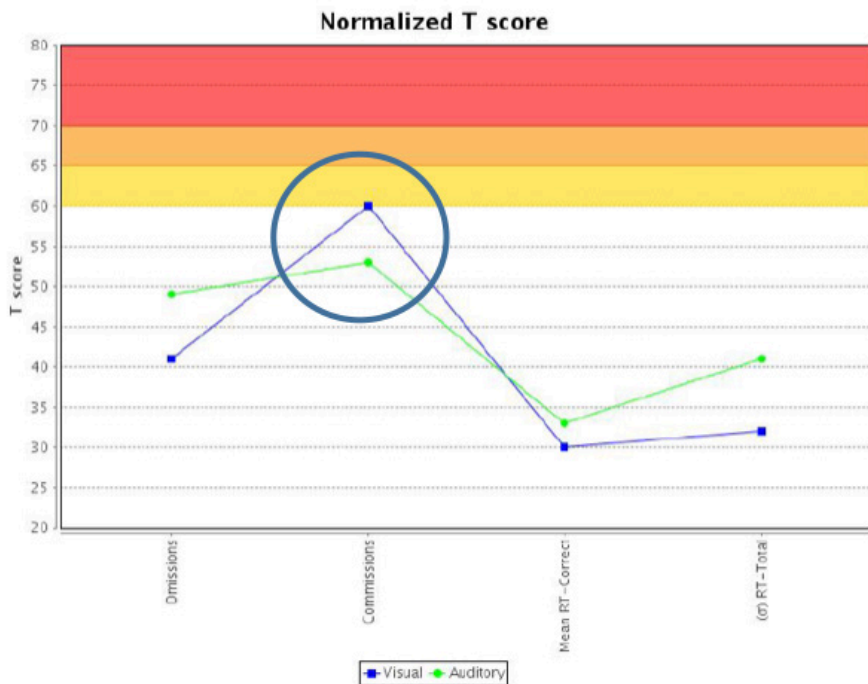
Profile: Inattentive girl with slow reaction time. This girl shows the same profile in both sensory channels. The inattention and the slow RT predominate in both conditions but especially, in the visual processing where, her performance is poorer than the normative population's performance.



Profile: Girl without attention problems. In this case, the girl does not show any attentional or impulsivity problems, neither slow RT. We can see that she processes the auditory and visual information properly during the test and, she obtains similar scores with both types of stimuli.

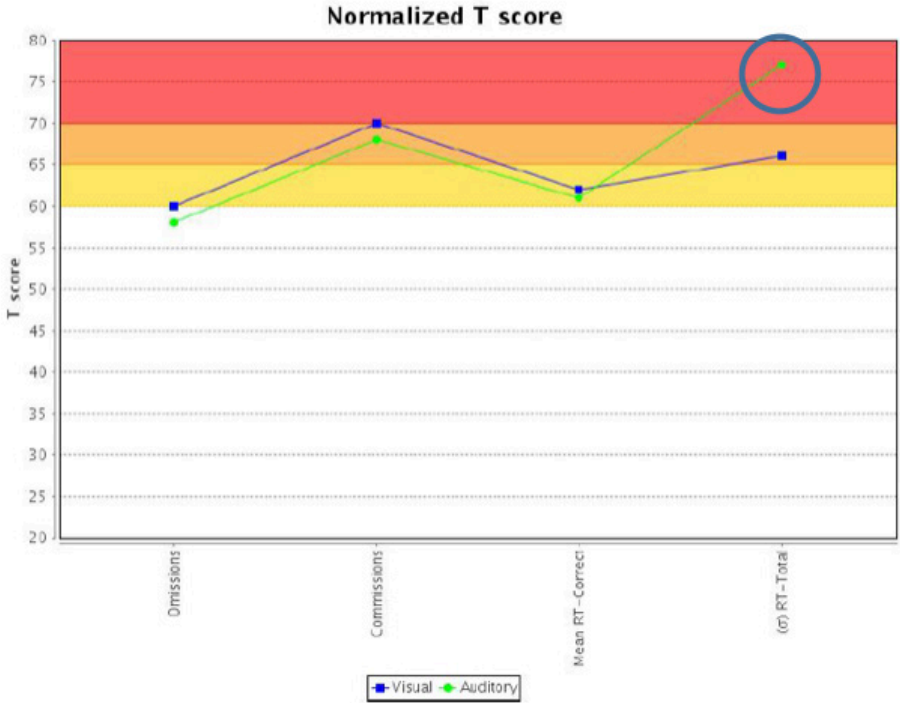


Profile: Boy with slow reaction time. In this occasion, we can observe that the boy processes better the auditory information than the visual one, and he obtains higher scores in that condition although, he has a slow RT in comparison with his reference group. Moreover, with the visual stimuli he has a greater variation of the RT. Note that punctuation of such characteristics can be helpful to design a potential intervention with the children. For example, in this case, it would be useful to use auditory strategies at school, for studying, etc.



Profile: Boy with tendency towards impulsivity, without attention problems.

Note that he has a similar profile with both sensory channels. Nevertheless, the score on the index of commissions (impulsivity) is higher than the other scores as compared with the normative sample, particularly with the visual stimuli. It seems that with the auditory stimuli he has a greater inhibitory control. It would be necessary to analyse the whole report to get information about the behaviour and the profile of the boy in different conditions.



Profile: Boy with ADHD diagnosis, combined type (hyperactive, impulsive, inattentive). The performance of the boy during the task, with auditory stimuli as well as with visuals, has been very similar. We can note that with the auditory stimuli his RT is less constant. Even so, the punctuations of this graphic do not only indicate that variation but also attentional difficulties, impulsivity and slow RT.

ASSOCIATED INDICES OF NESPLORA AULA

The Nesplora Aula's report, shows different variables that measure sustained attention, visual and auditory attention, impulsivity, motor activity, distractibility, attention focus quality and the response time. There are some indices that can influence others and many times they are presented together in certain cognitive profiles. Down below the most common and relevant indices are presented.



Commissions and omissions: It must be taken into account that when people make omission mistakes they are losing the opportunity of making commissions mistakes. If they do not press to the stimulus, either in a correct or an incorrect way, there is no option to make commissions. It can also happen the same in an inverse way. If a person makes too much commissions (for instance: he or she presses in an impulsive or random way) he or she does not have the choice of making omissions.



Omissions, distractors and attentional focus quality: A high punctuation in the variable omissions could be indicator of inattention. On the other hand, the quality of the attentional focus give us information about the mistakes the people have made when they have the attentional focus well directed; in other words, the mistakes they have made while they are looking to the blackboard where the stimuli are presented. It is common that these two indices appeared together because of a bad punctuation in the attentional focus quality may be caused by inattention generated by intern stimulus of the person. The person might be seeing the blackboard when the stimulus are presented, but he or she might not be paying attention to them.



We can add to these information the results obtained in the execution with and without distractors. When the distractors of the test do not affect to the execution of a person with an inattentive profile (high punctuation in omissions) but the results of the attentional focus quality are not good, it could be an indicator of inattention not caused by external stimulus but by internal ones.



Impulsivity and high RT: People who answer to the test in an impulsive way usually answer in so quickly. Furthermore, it is habitual to see profiles with a high punctuation in commissions and a rapid response time.



Inattention and variation in RT: Attention works in cycles so in the cases of inattentive profiles is habitual that they pay attention for a while, then they get distracted... so it is logic to obtain a high deviation in the reaction time. Since these people make the test without paying attention in a constant way and without answering in the same way to the stimuli, the RT is inconstant.





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