**Abstract**

An analogical reasoning computer test was adapted in order to prevent memory overload for students with moderate intellectual disabilities (IQ: 50-55 to 40-45). They are presented with a touch screen on which they see the A, B and C terms of the matrix. The test is composed of two versions. The first one is a classic version, which is similar to traditional analogical reasoning tests: participants see the A, B and C parts of the matrix and have to choose the right picture among several possibilities. The second version of our test is a construction version. There, participants have to construct the answer by choosing the different elements composing it. All components are shown on the lower part of the screen, together with incorrect components. The test is also composed of several levels of difficulty, 4 to be precise, from 2 relations to 5 in the last level. The more the relations, the more memory is overloaded, which leads to lose part of the information. Construction version design allows participants to create external memories and therefore to prevent memory overload, which is not the case in the classic version, because all the relations have to be maintained in memory all the time. Performances of students with moderate intellectual disabilities were compared to those of typically developing children of the same mental age. Results of our test are positive: in the construction version, students with moderate intellectual disabilities solved the items as well as the children, due to the external memories. However, in the classic version they got lower results.