**C10**

# Effects of Age, Gender, Diagnosis and Level of Intellectual Disability on Response Time in Children with Intellectual Disabilities

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**Introduction:** Response time(RT), i.e. the time taken to respond to a stimulus, is an essential component of our daily activities. The RT is found to be slower among children with disabilities compared to typically developing children. Among children with various disabilities, those with Intellectual Disabilities(ID) are found to have slower response time. Several factors are said to influence an individual's response time, which may vary among children with ID.

**Objective:** The study therefore aimed to evaluate the influence of age, gender, diagnosis and level of intellectual disability on RT among children with ID.

**Methods:** Children between 9 to 17 years of age, diagnosed with ID by their physician, were included in the study by simple random sampling. The study received ethical clearance and written informed consent was obtained from the parents of the participants. The study was performed within the premises of a special school to which all the children belonged. The participants RT(millisecond) was measured using an indigenously developed response analyzer by performing the simple response time experiment. The response analyzer had components of stimulus in the form of light to which the participant responded by pressing a hand switch. The time duration between the appearance of the stimulus and the pressing of the switch was considered as RT. Multiple regression analysis was carried out(SPSS 19.0) to see if age, gender, diagnosis or level of intellectual disability had an influence on the RT of children with ID.

**Results:** Seventy-five children(44 males) having mean age of 13.48(2.37)years participated in the study. The participants had a mean RT of 1028.23(636.39)milliseconds. Using the enter method it was found that age, gender, diagnosis and level of intellectual disability of the child explained a significant amount of the variance in the RT of the child ($F(4, 70) = 2.819$, $p < .05$, $R^2 = .139$, $R^2$Adjusted $= .090$). The analysis shows that among all the parameters only the level of intellectual disability significantly predicts the value of RT($\beta = .311$, $t(70) = 2.765$, $p < .05$).

**Conclusion:** The level of intellectual disability has a greater influence on RT than age gender or even the diagnosis of the variant of ID. Training methods to enhance motor abilities of children with ID need to be take the level of ID of the participants into consideration while planning for interventions.