

ABSTRACT

ACQUISITION OF MOTOR ACTIONS IN CHILDREN WITH COORDINATION PROBLEMS

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Admittedly children with motor difficulties have been target of concern on the part of researchers of a lot of areas. In literature some causes are pointed with respect to the difficulties of these individuals. Amongst them, it is possible to detach problems of visual and kinaesthetic perception, memory and also difficulties for the formation of action programs. In special the difficulties for the formation of action programs can represent a great impediment to the process of motor skills acquisition of these individuals. The present work had for objective to investigate the process of motor skills acquisition of children with motor difficulties. The premise of this study is that the that process depends on the formation of an action program organized in macro and micro-structure. Thus, 45 children with average of age of 9.4 years had taken part of this study. These children had been divided in three groups: GD (group of severe motor difficulties = 15 individuals); GR. (group of risk = 15 individuals) and GN (control group = 15 individuals). Two experiments had been developed. The first experiment had intention to identify and to characterize the performance plateaus of the different groups through the practice. The task consisted of reproducing the word "y" cursive for one hundred trials. Measures as the number of errors of legibility, linear space error, speed of execution, control of force and speed in the writing were used. It

had been used also measures to indicate the invariants characteristics of the action program, such as, number of fragments where the individuals had divided the graphical pattern, variability of the number of fragments, time and relative size of the first fragment of the figure. Generically, the results had pointed that, in comparison to the normal children, the children with motor difficulties had presented more errors of legibility and they had not presented a so regular performance in the analyzed measures. Also it had trend of this group to present greater values to the measures as the fragmentation and the variability of the fragments number. These results suggest difficulties in the formation of action programs. The second experiment had the intention to submit the individuals to disturbances to test the action program stability. The first disturbance was the execution of the task in the visual absence of feedback. The second disturbance corresponded to execute the graphical pattern "ykw" of a cursive form. The answers to the first disturbance had been similar between the groups in the biggest part of the variables. However with the second disturbance it had a trend of the groups with motor difficulty to present different motor answers of those presented by the normal children. The explanations for the differences can be associated to the stability of the program of action formed in each group.

keywords: Children with coordination problems, graphic skills, motor learning