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Specifics of Probabilistic Forecasting of Senior Preschool Children

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Abstract

The article deals with the results of empiric research aimed at studying the peculiarities of forecasting senior preschool children. The object of the study is children of the senior preschool age of 6-7 years. The results of a survey divided the children into two groups: a group of correction and a general education group, the level of the children's mental development corresponds to the age standard. The main research methods involved observation, interviewing and psychological diagnosis. The date obtained proves the fact that children who are behind in their mental development, need special psychological assistance to develop their predictive abilities.

1. Introduction

Among modern preschoolers there is a growing number of children with delays in mental development arising largely from speech and hearing defects, visual impairment and other diseases. These children need psycho-pedagogical correctional support, since most of them are found to have not only complicated defects but also

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behavioral problems and possess an underdeveloped intellectual and cognitive sphere. This adds relevance to the issue of studying the individual peculiarities of children's cognitive sphere in preschool educational institutions.

In learning the surrounding world and studying its realities a child and an adult alike perceive, process and structure the information received. Any cognitive activity includes, to a varying degree, the probabilistic forecasting of future events and readiness to perceive and anticipate things. The process of probabilistic forecasting is considered to be a mechanism which provides a speedy and accurate perception of sensory information, peculiarities of its processing and is associated with the frequency of occurrence of certain objects or events in a child's past experience. All events that happen in a child's life are interconnected and fixed in his memory, thus forming a probabilistic connection between separate events.

Our research is based on the works by L.A. Regush [2] who studied the structures of the cognitive forecasting ability and defined it as a combination of mental qualities that determine a successful solution of forecasting tasks (L.A. Regush, 2003 and L.I. Peresleni et al.) [1] who considered the relationship between forecasting processes and the peculiarities of the main mental functions (voluntary attention, memory, perception, thinking). (L.I. Peresleni, 1990).

2. Method

The specifics of forecasting among senior preschool age children can be determined through empiric research. In collaboration with E.A. Smirnova, a student of psychology at the Institute of Management, Business and Law in Rostov-on-Don, we conducted a study whose objects were senior preschool age children (6-7 years). The results of a survey divided the children into two groups: a group of correction or a group for children with delayed mental development (18 kids) and a general education group, the level of its children's psychic development corresponding to the age standard (33 kids).

In her questionnaire the psychologist recorded the results of child observation and the information provided by the caregivers. The list of issues included the following: behavioral and learning difficulties; peculiarities of the emotional and volitional sphere, attention; peculiarities of a child's cognitive activity; the presence of any violations in the motor area; the hearing and vision impairments detected during the study; children's attitude toward success and failure in the process of a performing a task; as well as other specific features of behavior, character and educational activities (if there were any). The data obtained allowed us to draw a more complete portrait of the preschooler under observation.

The main research methods involved observation, interviewing and psychological diagnosis. As methodological tools we used psycho-diagnostic techniques that are included in "Psycho-diagnostic complex (PDC)", that was elaborated and successfully tested by L.I. Peresleni, E.M. Mastyukova, L.F. Chuprov and enables to reveal peculiarities in the individual development of a child's cognitive activity. We also used a questionnaire which provided information enabling us to analyze a child's condition at the time of the survey, the specifics of a child's behavior and cognitive activity; methods developed by L.I. Peresleni and V.L. Podobed to investigate the peculiarities of forecasting activity; methods to diagnose verbal and logical thinking developed by E.F. Zambatsavichene and based on R. Amthauer's verbal sub-tests modified by L.I. Peresleni and E.M. Mastyukova; a technique using split images developed by L.I. Peresleni, O.I. Shuranovaya (L.I. Peresleni and others, 1990). To determine the significance of differences, a non-parametric U Mann-Whitney test was used.

3. Results and Discussion

The analysis of peculiarities in senior preschoolers' mental processes, conducted on the basis of empiric data, showed the following. Children in the correction group tend to make mistakes in "foretelling" in the process of forecasting activity more often than those in the general education group ($U = 178.500$, $\rho \leq 0.05$) (Table 1). It is more difficult for them to keep in mind their forecasts, to compare them with the order of the elements presented and to make logical conclusions about the correct letter sequences. According to the research by L.I. Peresleni and others, poor efficacy of forecasting correlates with weak data fixation and inadequate volitional attention.