

“The role of argumentation in constructing child hypotheses on the structure and operation of live organisms”

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This research is based on the socio-psychological concept of intellectual development theorized by A.N. Perret-Clermont and colleagues, following the works of J. Piaget and L. Vygotsky on the role of social cooperation in children’s intellectual development

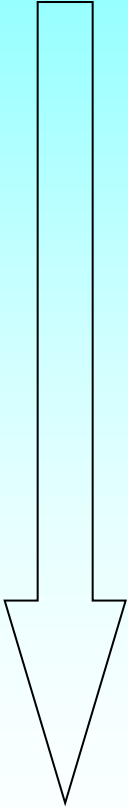
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The main goal of the research is to reveal the conditions which facilitate children’s abilities to work out meaningful hypotheses about the structure and operation of live organisms.

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Three levels of hypotheses

(by Egorova)

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- “Autistic” hypotheses (the main basis for this hypotheses is fantasy)
 - “Egocentric” hypotheses (not considering all situation as a whole, aligned on one of conditions which depends on subjective preferences and last experience)
 - “Meaningful” hypotheses (the main basis is objective criteria combined among themselves)

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The hypotheses of the research is that group discussions are the condition to permit children to move from low level (autistic) ability in making hypotheses to high level (objective).

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- We organized the group of children (4-6 people). In this group we conduct discussion. (named “The child laboratory”)
- Participants are children of 1-st and 2-nd year of education in primary school (6-8 years old).
- Children involved in this research are recruited at the Center of Psycho-Pedagogical Rehabilitation and Correction.
- The main topic of discussion structure and operation of live organisms.
- This topic of discussion is part of school curriculum on education in “biology” or “surrounding world”.

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Procedure for collecting data.

- Video recording
- Observation
- Analysis the argumentation in group discussion

Example of the task

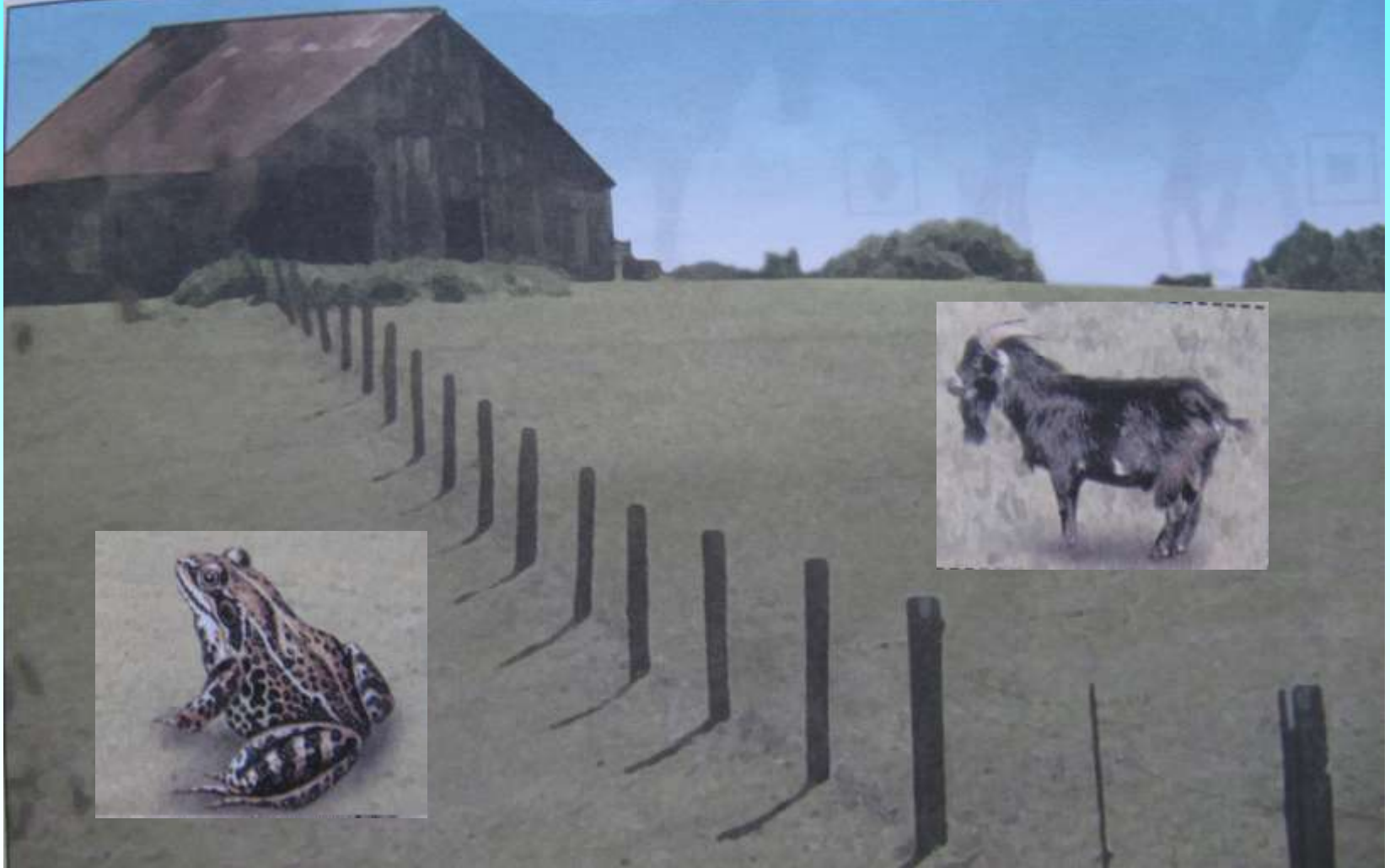
Who lives in a forest?

Who lives on a farm?





Кто живёт на ферме?





Thank you
for your
attention!