

## Reference

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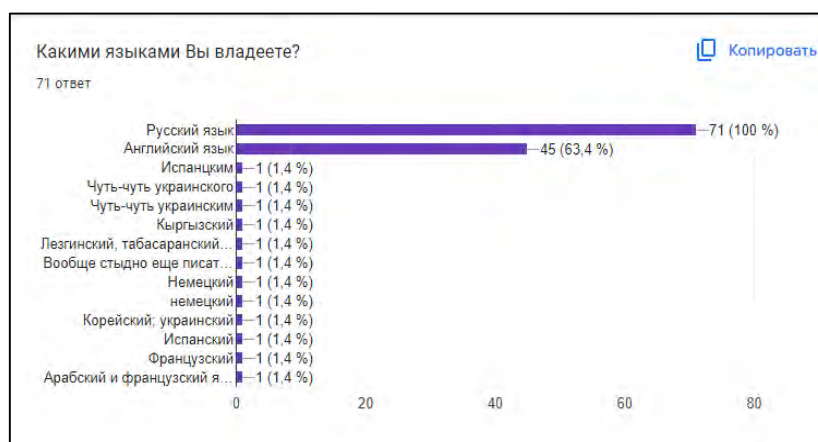
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## THE COGNITIVE EFFECTS OF LANGUAGE LEARNING: HOW ENGLISH SHAPES THE BRAIN

### Когнитивные эффекты изучения языка: как английский язык формирует мозг

English, like any other language, is a constantly evolving system, which complicates the process of learning the language and assimilating information [1]. The purpose of this work is to consider the influence of the English language on the formation of cognitive effects in thinking. Cognitive effects are cognitive distortions in which a person may overestimate his own qualities and abilities in relation to the same qualities and abilities in other people [2].

As part of this work, an experiment was conducted. The main objective of the experiment is to observe how knowledge of the English language affects the formation of thinking. The experiment involved people of different ages from 7 to 50 years. Among the participants there were those who spoke in English and those who did not speak in it. The respondents could understand that they had to answer in English only from the questions contained in the survey, for example. On the graph you can see that 45 people surveyed knew English, that is, 63.4% of all respondents (picture 1).



Picture 1

The experiment revealed the influence of cognitive effects on decision making. Thus, some of the people who did not speak in English, but understood that they still needed to give some kind of answer, answered in their native language, that is, Russian. This suggests that the brain strives to solve the problem by any means, in particular, using the knowledge that they have. In percentage terms, the share of these people was 11.6%. The age range of people who belong to this category is 45–50 years.

Also, among people who studied English, the correct answers to the questions were given by those who studied the language for 10 years and above. This suggests that long-term language learning contributes to the development of critical thinking, logic and the formation of new thinking. Respondents had to indicate female or male number of the given words were. Thus, those who had previously studied English were able to give more correct answers (picture 2).



**Picture 2**

People who did not study English relied on knowledge from the Russian language. Also, knowledge of the language was influenced by age; people over 45 years old, in most cases, did not speak in the language, so when completing the survey they relied on their knowledge of the Russian language and thought based on the experience of their native language [3].

### **References**

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