

**INTERRELATION OF THE FINGER INDEX AND THE DEVELOPMENT OF SUBJECT-  
COGNITIVE ABILITIES OF SCHOOL CHILDREN**

S.M. Kaitova, I.R Dyo., Sh.R. Arutyunyan

Scientific Supervisor: PhD Kaitova Z.S., RUDN University, Russian Federation, Moscow,

Miklukho-Maklaya str. 8, 117198;

E-mail: [zinfira\\_kaitova@mail.ru](mailto:zinfira_kaitova@mail.ru)

**ВЗАИМОСВЯЗЬ ПАЛЬЦЕВОГО ИНДЕКСА И РАЗВИТИЯ ПРЕДМЕТНО-ПОЗНАВАТЕЛЬНЫХ  
СПОСОБНОСТЕЙ ШКОЛЬНИКОВ**

С.М. Каитова, И.Р. Дьё, Ш.Р. Арутюнян

Научный руководитель: к.м.н., доцент З.С. Каитова

РУДН, Россия, Москва, ул Миклухо-Маклая 8, 117198;

E-mail: [zinfira\\_kaitova@mail.ru](mailto:zinfira_kaitova@mail.ru)

**Аннотация.** *В настоящее время уделяют серьезное внимание антропологическому исследованию. Нами проведено исследование пальцевого индекса у школьников старших классов. В исследовании принимали участие 24 школьника, из них мальчиков – 10 и девочек – 14; средний возраст – 14,5 лет. Оказалось, что у большинства мальчиков пальцевой индекс ниже единицы. Школьницы с пальцевым индексом единица и выше единицы учатся лучше, занимаются активно спортом, интересуются танцами и музыкой. Однако, достоверной зависимости успехов по русскому языку от пальцевого индекса у школьников не обнаружено. Возможно, полученные данные связаны с маленькой выборкой исследуемого материала.*

**Introduction.** The success of any activity depends not only on the presence of a particular skill, but also on a combination of different abilities [1]. Human abilities should be divided into two parts: natural (biological) and specific (human). Many of the natural abilities are common in humans and animals: perception, memory, thinking, the ability for elementary communications at the level of expression [1-3]. In addition to natural abilities, humans possess specific abilities that have a socio-historical origin. Thus, human abilities include general and special abilities. Common abilities are those that determine the success of a person in the most diverse spheres of activity. Special abilities provide the person with success in the specific types of activity, for which special types of makings and their development are necessary. Among the special abilities one should distinguish educational and creative, theoretical and practical, subject-cognitive and interpersonal ones and etc. [4-6]. To measure the degree of the development [of] abilities there is a system of tests that increase in difficulty, which is called the "battery of tests" [2, 4, 7].

According to E.A. Klimov (2004), all human occupations can be divided into the following types: nature – human being (professions related to the study of living and inanimate nature, etc.); technology - human being (professions related to the creation, installation, assembly and adjustment of technical means, etc.); human being – human being (occupations related to medical care and legal protection of a person); human being - sign information (professions related to texts, figures, formulas, and tables, with drawings, maps, diagrams, audio signals); human being - artistic image (professions related to the creation, design, modeling of works of art, the manufacture of various products according to a sketch, a model, etc.) [1].

Nowadays, not all the graduates of high schools are prepared for the "adult" life and can independently implement the choice of the profession and realize the further education associated with it. It is difficult for high school students to orient themselves in various professional aspects [4, 6, 8]. Quite often a high school student while choosing a profession relies on someone else's experience, that is, information received from parents, acquaintances, from the media or Internet resources. Often, this choice leads to a feeling of personal dissatisfaction and a low level of professional adaptation.

The research questionnaires did not include a detailed study of the location of the pattern on fingers and on the skin of a palm. Schoolchildren selection was random and not entirely reliable, in order to reveal a clear pattern between personality traits and dermatoglyphic patterns. The purpose of the study was to identify the possible relationship between the finger index and the educational and cognitive inclinations of schoolchildren.

**Materials and methods.** Two main methods were used: questioning and finger index. The students of the 8th grade took part in the study. There were 24 children in total, 10 of them - boys and 14 - girls. The average age was 14.5 years. The questionnaire included the following questions: age and gender, academic achievement in mathematics and the Russian language, general academic performance, sports, music, vocals, dancing, drawing, hobbies and other items. Schoolchildren filled the questionnaires by themselves. They measured the length of the index, ring fingers, and calculated the finger index (the ratio of the length of the index finger to the length of the ring finger (2D: 4D)). The measurement was carried out only with the right hand, since all the children were right-handed.

**Discussion.** According to statistics, 25% of women have the equal length of the index (2D) and the ring finger, that is, the finger index corresponds to one. In 45% of women, the index (2D) is longer than the ring finger. Also 52% of males usually have longer ring finger (4D), that is, the finger index is less than one. The data obtained by us correspond to general statistics. The 80% of school girls have a finger index higher or equal to one. While 50% of schoolchildren have a finger index less than one.

Schoolgirls. Of the 14 investigated: 2D is longer in 4; The finger index (2D: 4D) is equal to one in 5 girls; 4D is longer in 5 schoolgirls. Overall academic performance: "Satisfactory" - 6; "Good" - 6; "Excellent" - 2. Russian language performance is better for girls with a finger index of one or higher. It is revealed that 10 schoolgirls out of 14 are engaged in sports and all have an index finger longer than a ring finger. It turned out that all the girls who are fond of music and dancing (4), singing (5), or study in the art school (5), have the index finger longer than the ring finger, that is, the finger index is higher than one.

Schoolboys. Out of 10 studied students, the index finger (2D) is longer in 4 boys, and the ring finger (4D) is longer in 6 pupils. It was revealed that the overall academic performance was "Satisfactory" in 3; "Good" - 5; "Excellent" - 2. The best performance in the Russian language and mathematics is noted in children with a long ring finger, that is, the finger index is less than one. Eight schoolchildren are engaged in sports, 5 of them have a ring finger (4D) longer than an index finger. Also revealed that all boys with a finger index above one (3) are interested in music.

**Conclusions.** Girls with a finger index equal to one (2D: 4D) learn better, do sports, are interested in dancing and music. Boys with a finger index less than one are engaged in sports and their overall academic performance is higher. Boys with a finger index above one are fond of music. We have not identified a reliable dependence of academic performance on the Russian language or on mathematics from the finger index. Perhaps

the results are related to a small sample of schoolchildren. 80% of schoolgirls have a finger index higher or equal to one. While 50% of schoolchildren have a finger index less than one.

Schoolchildren of the same class participated in the work. Children study together since elementary school and are already used to a psychological social atmosphere. Their school is ethnic, multinational and multicultural and where schoolchildren feel comfortable. They have been learning Korean from the first grade, and English - from the second grade. All children belong to an equivalent social group. Thus, the low overall academic performance in this group is due only to children's "self-indulgence". In addition, the lack of a significant dependence of students' success in subjects on the finger index is associated with the need to expand research methods. It is required to develop the dynamic monitoring of this group and organize practical recommendations for students in choosing a profession.

#### REFERENCES

1. Klimov, E. A. (2004) Psychology of professional self-determination: Textbook. MO RF. - St. Petersburg: Academy, p. 301.
2. Bogdanov, N. N., Solonichenko, V. G. (2002) History and main tendencies of development of dermatoglyphics. Identification and definition of personality characterization (dactyloscopy and dermatoglyphics). -M., pp. 36-58.
3. Gertrud, I. (2006) Hürlimann. Signs of hands - about the nature and type of personality: St. Petersburg. Publishing group "Weight", pp. 172-177.
4. Titova, Ye. P. (1975) Sexual development of adolescent girls with different somatotypes. Differential psychophysiology and genetic aspects. Theses of the symposium.
5. Lyakh, V. I. (2000) The motor abilities of schoolchildren: the fundamentals of theory and methods of development. M.: Terra-Sport, p. 192.
6. Klimov E. A., (2003) Anatomic-morphological patterns of the variability of a person's personality with a human sense and their interaction with a dermatological bond: Author's abstract, p. 50.
7. Edzhubova, Bogdanova, Kh. Nikitina, T. M., Kochetkova, N. I., Isaak, S. I. (2002) Finger Dermatographic and Physical Features. Papillary Patterns: Identification and Definition of Personality Characteristics (ed.), pp. 113-135.
8. Solonichenko, V. G., Bogdanov, N. N. (2002) Medical dermatoglyphics. Identification and definition of personality characterization (fingerprinting and dermatoglyphics), pp. 59-80.