

**Comparative Analysis of Verbal and Non-Verbal Mental Activity
Components Regarding the Young People with Different Intellectual
Levels**

Abstract. The paper maintains that for developing the educational programs and technologies adequate to the different stages of students' growth and maturity, there is a need for exploring the natural determinants of intellectual development as well as the students' individual qualities affecting the cognition process.

The authors investigate the differences of the intellect manifestations with the reference to the gender principle, and analyze the correlations between verbal and non-verbal components in boys and girls' mental activity depending on their general intellect potential. The research, carried out in Siberian State Automobile Road Academy and focused on the first year students, demonstrates the absence of gender differences in students' general intellect levels; though, there are some other conformities: the male students of different intellectual levels show the same correlation coefficient of verbal and non-verbal intellect while the female ones have the same correlation only at the high intellect level.

In conclusion, the authors emphasize the need for the integral approach to raising students' mental abilities considering the close interrelation between the verbal and non-verbal component development. The teaching materials should stimulate different mental qualities by differentiating the educational process to develop students' individual abilities.

Keywords: general intelligence, verbal intelligence, non-verbal intelligence, correlation, gender differences.

References

1. Babaev Y.D, Rotova N.A, Szabados P.A, Babaev Y.D Determinants of the test of intelligence in terms of time constraints [Electron. resource] // Psychological studies. 2012. T. 5. № 25. p. 4. Mode of access: <http://psystudy.ru>.
2. Vinogradova V. Semenov V.A Comparative study of cognitive processes in both men and women: the role of biological and social factors // Questions of psychology. 1993. Number 2. p. 63-71.
3. Vygotsky, LS Selected psychological research. Moscow, 1956. 518 p.
4. Druzhinin V.N. Psychology general abilities. St. Petersburg.: Piter, 2008. 368 p.
5. Egorova M.S comparison of divergent and convergent features of cognitive children (age and genetic analysis) // Problems of psychology. 2000. № 1. p. 36-46.
6. Ereemeeva V.D Types of laterality in children and neurophysiological basis of individual learning // Questions of psychology. 1989. № 6. p. 128-135.
7. Ilyin EP differential psychophysiology of men and women. St. Petersburg.: Piter, 2003. 544 p.

8. Kabardov M.K, Matova MA Hemispheric asymmetry and verbal and non-verbal components of cognitive abilities // Questions of psychology. 1988. № 6. p. 106-115.
9. Covas J.V, Tikhomirov T.N, Malyh S.B Problem of stability and variability of general abilities in psychogenetics / / Questions of psychology, 2011. № 6, p. 67-77.
10. Konovalov V.F, Otmakhova N.A Features hemispheric interactions for imprinting information / / Issues. psychology. 1984. № 4. p. 96-102.
11. Leites N.S Age endowments and individual differences. Moscow-Voronezh, 1997. 448 p.
12. Khomskaya D. Study of the biological basis of the psyche in terms of neuropsychology / / Questions of psychology. 1999. № 3, p. 27-37.
13. Khomskaya D.F, Efimova I.V, Sirotkin E.B Hemispheric asymmetry and voluntary regulation of intellectual activity // Questions of psychology. 1988. № 2. p. 147-151.
14. Yasyukova L.A Test structure of intelligence Amthauera R. (IST): a method guide. St. Petersburg.: Imaton, 2002. 80 p.
15. Bogen J. E. The other side of the brain, VII: Some educational aspects of hemispheric specialization / / UCLA Educator. 1975. V. 17. P. 24-32.
16. Kumar D., Kapila A. Problem solving as a function of extraversion and masculinity / / Pers. and Individ. Differences. Oxford, etc. 1987. V. 8. Number 1. R. 129-132.
17. Maccoby E. E., Jacklin C. N. The psychology of sex differences. Oxford: Oxford Univ. Press. 1975. 271 p.
18. Selkow P. Male / female differences in mathematical ability: A function of biological sex or perceived gender role? // Psychol. Rep. Missoula. 1985. V. 57. Number 2. R. 551-557.
19. Visser D. Sex differences in adolescent mathematics behavior // South. Afr. J. of Psychol. 1987. V. 17. P. 137-144.