

# Visual Perceptual Skills in Normal Children Aged 7 to 13 Years in Tehran City

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## Abstract

**Objective:** This study was aimed to determine visual perceptual skills of normal children aged 7 to 13 years in Tehran, comparing visual perceptual skills between boys and girls, age groups and students of different educational areas and finding the correlation among subtests with each other and subtests with total test.

**Materials & Methods:** In this cross sectional study 788 children aged 7 to 13 years old from 40 elementary and high schools of 5 districts of Tehran were selected by simple randomized and proportional to size method of sampling. Subjects were categorized in 3 age groups and then they were assessed by TVPS-R. The data were analyzed by statistical tests including Kolmogorov Smirnov, Bartlett, Analyze of variances, Independent T test, Kruskal-Wallis, U mann-whitney and Spearman correlation coefficient in SPSS software.

**Results:** According to results, standard scores for all visual perceptual skills were about the average (Visual Perceptual Quotient=94.68). Analysis of data revealed significant differences among age groups in visual perceptual skills except Visual Memory and Visual Sequential Memory (from  $P=0.045$  for Visual Closure to  $P<0.001$  for Visual Form Constancy). Students of different districts in Tehran had significant differences in visual perceptual skills ( $P<0.001$  for all visual skills). No significant differences were found between girls and boys in five of visual perceptual skills but there was significant difference between them in Visual Form Constancy ( $P=0.009$ ), Visual Figure Ground ( $P<0.001$ ) and Visual Perceptual Quotient ( $P=0.011$ ). Correlation and total test was higher ( $Rho>0.617$ ) but it was lower among subtests to each other ( $Rho<0.508$ )

**Conclusion:** The results of this study determined the visual perceptual skills scores in normal children. These scores will play as criteria for next studies especially the ones related to abnormal children.

**Keywords:** Visual perception impairment/ Visual perceptual skills/ Normal children/ Visual discrimination/ Visual information processing