

## **Investigation the Science Critical Thinking Skills in terms of Various Variables of Secondary School Students<sup>1</sup>**

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### **Abstract**

**Introduction:** While the importance of information increases; It is important to examine mental processes in the effort to obtain knowledge. For this reason, critical thinking skill, which is one of the sub-skills of rational thinking, has emerged.

**Aim:** The purpose of this research is to investigate the science critical thinking skills in terms of various variables of secondary school 5th, 6th, 7th and 8th grade students.

**Method:** In this research, the descriptive scanning method was used. The research was conducted in four different secondary schools in a metropolitan city in the fall semester of the 2023-2024 academic semester. The study group of the research consisted of 787 students (n5th grade = 193, n6th grade = 201, n7th grade = 208, n8th grade = 185).

**Findings:** As a result of the analysis of the data, the science critical thinking skills levels of secondary school students; it does not vary according to gender, age and mother's educational status, whether or not they take relevant courses. However, it has been observed that critical thinking skills levels in science courses differ in terms of secondary school students' positive attitude towards science class, their father's education level and grade level. It was noted that this difference was in favor of students who like science classes, follow a scientific journal. So these students had a high average success rate in science classes.

**Originality and value:** The findings obtained in this study may contribute to detecting and improving the current situation.

**Key Words:** Critical thinking, science, secondary school students

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