

# EFFECT OF THE USE OF SIX THINKING HATS TECHNIQUE IN EDUCATION ON ACADEMIC ACHIEVEMENT: A MIXED-META METHOD RESEARCH

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## ABSTRACT

As the world rapidly changes and develops, students are finding it increasingly difficult to achieve their goals. In this era where traditional education methods are being scrutinized for their impact on academic success, educators are exploring various teaching techniques to improve academic outcomes. The Six Thinking Hats Technique (STHT) is one of the teaching techniques. The study aims to examine the effects of STHT applications on the academic achievement of students through mixed-meta method. Meta-analysis is used for this purpose, which provides the analysis of quantitative data, and meta-thematic analysis, which provides the analysis of qualitative data, within the framework of the mixed-meta method. Quantitative data within the scope of meta-analysis were analyzed with the CMA and MetaWin programs. As a result of the analysis, the effect size was found to be  $g = 1.071$ , which means a large degree of effect. This finding indicates that STHT applications have a significant positive effect on academic achievement. In the meta-thematic analysis process, the data were analyzed through the Maxqda program, and various codes were created in the context of the positive aspects of STHT. Several codes were identified, including the improvement of expressive skills, the acquisition of speaking skills while following social etiquette, the ability to articulate emotions, thoughts, dreams, impressions, and experiences, the opportunity to utilize debate and other discussion techniques, and the enhancement of communication abilities.

**Keywords:** Six Thinking Hats Technique, Academic Achievement, Mixed-Meta Method, Meta-Analysis, Meta-Thematic Analysis, Effect Size.

## INTRODUCTION

The Six Thinking Hats Technique (STHT) is a popular teaching method that aims to enhance critical thinking, creativity, and problem-solving skills among students. In recent years, there has been a growing interest in examining the effectiveness of STHT on academic achievement. Since ancient times, the most basic feature that distinguishes individuals from other living

species is their ability to think. People can perform mental processes such as understanding, decision-making, and problem-solving. The foundation of science and technology is the thinking ability of human beings. In this age of rapid advancement in science and technology, even higher-level thinking, has become a necessity. This fact makes educational approaches based on mental skills important in the field of education (Güneş, 2012). Education is the only way for individuals to keep up with the developing and changing world. Among the techniques that reveal mental processes and thinking skills in education, STHT is at the forefront (Aslan, 2017).



This paper has objectives related to SDG

