

Chapter 9

Storytelling as a Technique to Enhance Mathematical Understanding and Cultural Integration

Pham Sy Nam

 <https://orcid.org/0000-0002-1239-2377>

Saigon University, Vietnam

Danh Anh Vo

Giong Rieng High School, Vietnam

Pham Thanh Tu

Saigon University, Vietnam

Tran Thuy Nga

Vietnam Institute of Educational Sciences, Vietnam

ABSTRACT

This chapter explores storytelling as a pedagogical technique to enhance students' mathematical understanding while simultaneously fostering

DOI: 10.4018/979-8-3693-8317-9.ch009

cultural integration. Storytelling is an ancient, universal tool that makes abstract concepts more relatable and meaningful. When applied to mathematics education, storytelling can help bridge the gap between theoretical concepts and real-life experiences, making learning more engaging and effective. By incorporating cultural narratives into mathematical instruction, educators can also promote cultural awareness and appreciation, thereby enriching the learning experience. This research examines methods of applying storytelling in mathematics lessons and presents examples of how these techniques can reflect and integrate traditional culture. The findings indicate that storytelling improves students' ability to solve mathematical problems and deepens their appreciation for cultural heritage, highlighting storytelling's dual educational value in both cognitive and cultural domains. The chapter also considers the global applicability of these techniques, providing insights into how storytelling can be adapted to diverse educational contexts.

1. INTRODUCTION

In today's educational landscape, finding effective ways to engage students and help them grasp complex concepts is a key challenge for educators. Traditional teaching methods, particularly in mathematics, often struggle to sustain students' interest or make abstract ideas accessible. Mathematics, which frequently relies on theoretical constructs and abstract problem-solving, is a subject where students can easily become disengaged. This disengagement is particularly acute in subjects like algebra or geometry, where students may struggle to see how mathematical concepts apply to real-world scenarios. Consequently, many educators are turning to alternative teaching strategies that make learning more dynamic and interactive. Among these strategies, storytelling has emerged as a powerful pedagogical tool that can enhance understanding while also providing cultural context.

Storytelling is a technique as old as human civilization. For centuries, stories have been used not only to entertain but also to educate, convey values, and preserve cultural heritage. In the context of education, storytelling serves multiple functions. It can simplify complex ideas by embedding

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