Chapter 10

Reflection of Chaos and Complexity Theory Properties within Classroom Discipline

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ABSTRACT

Chaos and complexity theory has been used in the study of the natural sciences for over thirty years. Throughout the years, experts from various fields have used it as a new way to view the world around them, including its applications to the field of education and subsystems within the education system. However very few studies have been conducted on the application of chaos theory to classroom discipline. The field of classroom discipline, like the natural world, can also be observed from this perspective because it exhibits many features of chaotic/complex systems. Classrooms are often described as complex, dynamic and unpredictable environments. This makes it difficult for teachers to understand and manage classroom discipline. This paper explores the complexity of classroom discipline and how the principles of chaos and complexity theory reflect on classroom discipline. This would help inform management strategies and alternatives that would in turn enhance and improve student academic achievement and overall performance.

INTRODUCTION

The Complex Nature of Todays Classrooms

Today's schools are becoming increasingly diverse. As describes by *Tomlinson* and Allen (2000), today's classrooms consists of students from multiple cultures, some of whom are trying to bridge the languages and behaviors of two worlds. Students with very advanced learning skills sit next to students who struggle mightily with one or more school subjects. Children with vast reservoirs of background experience share space with peers whose world is constrained by the few blocks of their neighborhood.

As suggested by Howell & Nelson (1999), today's educators are expected to cater for the diverse needs of all students, including those with emotional and behavioural challenges (disorder). Some experts have referred this as inclusion. As defined by *Tomlinson* and Allen (2000), Inclusive education is about how we develop and design our schools, classrooms, programs and activities so that all students learn and participate together. Furthermore, it is also important to note, that the physical placement of students with special needs (disabilities) in general education classroom is not and end of itself, but rather a means to an end. The movement towards the inclusion combines with recent mandates requiring all learners to meet established curricular guidelines makes it increasingly challenging for educators to meet their moral and ethical responsibilities (Jones, Jones & Vermitte, 2013).

Technology is everywhere, incorporated in almost every part of our lives. It affects how we shop, socialize, connect, play, and most importantly learn. With their great and increasing presence in our lives it only makes sense to have mobile technology in the classroom. The use of technology in the classroom has become the most debating topic among the educators and decision makers (Edutopia, 2008). Traditional black boards have been replaced by smart boards, multimedia projectors. Students carry personal laptops and tablets instead of books. It is important that school wireless networks keep up with the ever changing technology in order to keep up with the students. From the ease of communicating with their teachers via e-mail, to quickly accessing an overabundance of information online about a particular topic they have learned about in class, technology is needed in today's classroom (Wainwright, 2015)

Discipline and Effective Classroom Environment

Discipline is one of the most important and useful skills everyone should possess. This skill is essential in every area of life, and though most people acknowledge its importance, very few do something to strengthen it. The success of teaching and

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