

Chapter 7

Planning Curriculum for Teaching Thinking Skills Needed for 21st Century Education

Harpreet Kaur Dhir

Hacienda La Puente Unified School District, USA

ABSTRACT

This chapter provides a method for meeting the educational demands of the 21st century. The Content through Action method (CTA) provides a process to plan integrated instructional units for connecting various subject matter areas. Based on the researcher's experience in designing interdisciplinary units, the chapter includes the CTA process of building a unit and the research-based rationale behind each step of the process. The literature review includes discussion of the Four Cs, the 21st-century classroom, the motivation of learners, and the teacher's role. The theoretical framework is built on the foundation provided by constructivism, heutagogy, design thinking, the theory of change, and the growth mindset. After teaching other methods such as problem-based and design-based learning, the author asserts that the CTA method of instructional planning promotes the development of thinking skills compatible with the needs of the 21st-century learner.

INTRODUCTION: 21ST CENTURY EDUCATION

As the world of education completes two decades of the 21st century, it continues to transform the practices, multiple theories, and methods implemented to develop instructional plans compatible with the demands of the modern era. Donovan, Green, and Mason (2014) mention the recent focus on educational reform to develop 21st century skills. The authors point out some commonalities in various frameworks concerned with these necessary skills as they examine the Partnership for 21st Century Skills (P21), enGauge 21st century skills, the American Association of Colleges and Universities, and the Organization

DOI: 10.4018/978-1-5225-7829-1.ch007

for Economic Cooperation and Development. This chapter focuses on the P21 framework that includes critical thinking, creativity, collaboration, and communication, or the Four Cs. In schools, the Four Cs are positioned as the foundations of instructional planning.

Being a successful learner in the 21st century consists of a two-pronged process. Developing the needed skills that the Four Cs represent forms one branch; the other branch requires students to develop metacognition to reflect on personal capabilities. Hargreaves (2016) describes reflective competency as essential to maximizing deep learning. Metacognitive skill facilitates the learner's construction of the meaning as a form of mental processing. I argue that planning instruction using the Four Cs framework is incomplete without developing the reflective practice as learners engage in the meaning-making process.

The meaning-making process could be rooted in cultural practices despite the standardized view presented by Bruner (1986). Young children make meaning from the egocentric perspective being unaware of the other perspectives. Through unmediated experiences, having direct encounters with the world leads to developing knowledge about the world. Ultimately, cognition develops as cognition, affect, and action. In the 21st century education, a learner needs to shift from solely having an egocentric perspective to that of cognition and action in collaboration with peers as enabled by the Four C's.

As a practicing educator, I find that theoretical frameworks need methods to materialize research into practice. The goal of this chapter is to facilitate instructional planning and to provide classroom teachers with examples of 21st century-compatible teaching, including the Four Cs and reflective learning. My public-school teaching experience of 25 years enriches the chapter with insights developed throughout those years.

The experience of teaching general education K–6, special education, university teaching to train teachers, and being in the role of a Teacher on a Special Assignment, along with various other leadership roles in 25 years of teaching, has provided the researcher with a vantage point for viewing experience-based learning as the most beneficial to students. During those years of teaching, I have implemented design-based and project-based learning methods, and these methods provide a launching pad to innovate other methods using experience-based professional insights.

BACKGROUND: LITERATURE REVIEW

Defining Thinking Skills

Postman (1985) laments the direction America has been taking towards technology serving as a distraction to thinking where all subject matter is presented in a multi-media format to present it in an entertaining manner. He predicts that the country's attraction towards entertainment will lead to a Hollywood actor becoming the president of the United States. Ronald Reagan and Donald Trump as presidents have materialized the author's concerns with serious public issues turning into entertainment.

This begs the definition of thinking skills if the trend must be shifted from technological entertainment to the necessities of the 21st century education. According to Donovan, Green, and Mason (2014), teaching thinking skills is compatible with the 21st century skills (termed the Four Cs) in the framework of the Partnership for 21st Century Skills (P21). The P21 framework defines thinking skills as a range of ideas and the techniques necessary to create those ideas. The study includes subskills of the umbrella term "thinking skills": creative thinking and critical thinking, in addition to communication and collaboration.

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