

Chapter 13

Smash-Up: Design Thinking, Personalized Learning, and Gifted Learners

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ABSTRACT

Among the current trends, globally in education, is a focus on personalized learning as a way to meet student needs, increase engagement, and improve achievement. Design thinking is a process, as well as a way of being, which, as a promising practice, provides a means for personalizing learning through work that is meaningful and relevant to students. The mindsets and processes of design thinking were used to invite gifted students into problem finding and problem solving, which began with where the students were at and further developed their knowledge and skills in action-oriented solutions. Using design thinking, students engaged in the world to solve authentic problems through a lens of empathy and human centeredness, strengthening their ties to community. Design thinking provided rich learning opportunities that were effective for gifted learners, engaging their curiosity, sense of social justice, imagination, and critical thinking.

INTRODUCTION

This chapter will look at the connection of personalized learning, design thinking, and gifted learners, through the literature, teacher practice, and teacher reflection of their work with students.

Globally, there is increasing concern over inconsistent and/or declining student achievement in K-12 education (OECD, 2015). Queried, within the discussion of this issue, is the notion of student engagement. Personalized learning, as an approach to meet students' learning needs, increase student engagement, and increase student achievement, has been studied and employed as a possible solution. Design thinking, as a process, focuses on the needs of the user in solving a problem, such as student engagement and student achievement. It has the potential to personalize learning for students. Gifted learners have a unique cluster of characteristics. Like other learners, they need to be engaged in their learning in order

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to achieve. Meaningful, relevant, appropriately challenging tasks are an essential feature of engagement for gifted learners.

As you read this chapter, it is hoped that you will find design thinking, both as a process and as a way of being, as a means to personalize learning, such that all learners, including gifted learners, are excited, curious, and engaged in their learning. Enabling learners to achieve their personal best, helps to prepare them with the skills and knowledge needed to live in a dynamic global community.

BACKGROUND

Selected Review of the Literature

The following topics: personalized learning, design thinking, and gifted learners, are reviewed with the intent to provide background as innovative pedagogies and best practices for gifted learners as well as others.

Personalized Learning

As teachers embark on designing and enacting learning tasks with a class, it takes little time for them to realize, there is great learning variability amongst their learners, as well as within each individual. Focusing on the middle of the class or on an individual's average ability, Rose (2015) suggests, does not seem useful. By designing instruction to customize students' experiences, including changing how and when students are assessed and by allowing them to progress to more advanced content when they are ready, personalized learning aims to maximize learning for each individual student.

Personalized learning focuses on individual students' needs and voice, acknowledging they each have their own learning style (time, place, space, mode), curiosities, and interests (Abel, 2016; Hyslop & Mead, 2015; Patrick, Kennedy, & Powell, 2013; Redding, Twyman, & Murphy, 2016; Shminan & Othman, 2015). Planning begins and ends with a focus on designing environments targeted to improve the growth and development of all learners, individually. The underlying belief, according to Basham et al (2016) is that every learner can and will be successful. Further, it is every educator's responsibility to take ownership in supporting this success.

Learning is designed based on assessments of motivation, ability, and learning style. Personalized learning aims to meet students where they are at and allows them to advance to more challenging material whenever they are ready (Hyslop & Mead, 2015; Wolf, 2010). Pace is determined based on the learner's achievement or mastery of specific competencies, as supported by evidence, not time in seats (Basham et al, 2016; Hyslop & Mead, 2015; Patrick, Kennedy, & Powell, 2013; Redding, Twyman, & Murphy, 2016; Yi et al, 2017). A personalized environment is both active and complex, emphasizing individual learner growth, often in skill based and cooperative student groupings (Basham et al, 2016).

The Bill & Melinda Gates Foundation (n.d) have developed a working definition of personalized learning consisting of four key elements:

1. **A Learner Profile:** Each student has a current record of his/her individual strengths, needs, motivations, and goals.

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