

**USING GAMES TO BUILD POSITIVE SELF-IDENTITY FOR  
TWICE-EXCEPTIONAL LEARNERS**

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**Abstract**

*This capstone project addresses a major problem of practice in the field of twice-exceptional education, and after examining the literature and identifying a gap in services to promote a positive self-identity, proposes a workable solution.*

*Twice-exceptional students are unique, out-of-the-box thinkers who must be afforded the tools to explore their learning differences, capabilities, diversities, and layers of cultural, intellectual, creative, and emotional selves to build a positive identity. When identity development is supported early, these students have the promise of a foundation, enabling them to seek the environments that will help them thrive and learn coping strategies for the obstacles and hurdles they will inevitably face. To support this critical issue this project includes the development of two games that are grounded in literature and field-tested with twice-exceptional students.*

*The Hand You Were Dealt Game: Exploring Diverse Minds™ is a card game that explores the asynchronous attributes of twice-exceptional students. The purpose of this game is to foster a positive self-awareness of both their academic and social strengths and obstacles. The Game of School; A Learning Journey™ is about providing twice-exceptional students a simulated experience through a school year. The purpose of this game is to get students to openly talk about their issues as they journey through the game board in a fun and engaging way.*

*This paper describes the theoretical framework underlying each of the games and the process by which these games were developed. It concludes with the projected value of the project and next steps to support the use of these games.*

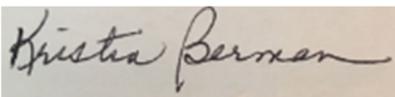


APPROVAL PAGE

Doctor of Education Capstone Problem of Practice

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EXCEPTIONAL LEARNERS**

**Cynthia Zoë Hansen & Rashmii Mahendra**

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### **Dedication**

The researchers dedicate this Capstone Project to our families:

Tim, Bernie & Franklin: Fellow travelers on my parenting and educational journey  
CZH

My parents, Dr. Mahendra K. Khatri and Krishna Anuradha, and my son Neil for being my  
compass  
RM

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## Table of Contents

<b>Abstract</b>	<b>ii</b>
<b>Dedication</b>	<b>iv</b>
<b>List of Tables</b>	<b>ix</b>
<b>List of Figures</b>	<b>x</b>
Preface: Can You See Me?	1
<b>CHAPTER I: Introduction</b>	<b>2</b>
Rationale	2
Statement of the Problem	3
Significance of the Capstone Project	6
Potential Benefits of Game Use for Learners and Families	6
Definition of Key Terms	7
<b>CHAPTER II: Literature Review</b>	<b>9</b>
Defining Characteristics of the Twice-Exceptional Learner	10
Theoretical Frameworks of Identity Formation	13
Identity and Twice-Exceptionality	15
Building Esteem and Positive Identities	17
The Role of Games in School-based Social-Emotional Learning	17
Social and Emotional Learning Competencies	19
The Role of Facilitators	19
Game Development Considerations	20
Defining The Gap	22
<b>CHAPTER III: Project Design</b>	<b>23</b>
Background, Purpose, and Vision	24
Steps in Developing the Prototype	25
Pilot Testing and Procedures	28
Refinement and Recommendations	29
<b>Chapter IV: Key Findings and Results</b>	<b>30</b>
Key findings that were common between both games	31
Facilitator Skill	31
Observations from Players	31
Role of the Facilitator in the Games	32
Allowing a Free Flow of Discussion	33
Engagement Levels	33
Comfort Levels During Game Play	34

Key Findings for The Hand You Were Dealt Game: Exploring Diverse Minds™	34
Key Finding 1	35
Key Finding 2	35
Key Finding 3	35
Key Finding 4	36
Key Finding 5	37
Key Finding 6	38
Key Findings for The Game of School: A Learning Journey™	39
Key Finding 1	39
Key Finding 2	40
Key Finding 3	40
Key Finding 4	41
Key Finding 5	42
Key Finding 6	43
<b>CHAPTER V: Recommendations and Development of Revisions</b>	43
Recommendations for Both the Games:	43
Recommendations For The Hand You Were Dealt Game: Exploring Diverse Minds™	44
Recommendations for The Game of School: A Learning Journey™	45
Curriculum Recommendation: Opportunities for Expressions of Self-Reflections	46
<b>CHAPTER VI: Conclusion and Implementation Possibilities</b>	47
References	49
APPENDIX A: Community Partner Approval	65
APPENDIX B: Informed Consent (Teacher/Staff)	68
APPENDIX C: Family Cover Letter	69
APPENDIX D: Informed Consent (Parent / Guardian)	71
APPENDIX E: Informed Assent (Student)	73
APPENDIX F: Observation Worksheets: Teachers	74
APPENDIX G: Observation Worksheets: Students	75
APPENDIX H: The Hand You Were Dealt™ Focus Group Survey	76
APPENDIX I: The Game of School: A Learning Journey™ Focus Group Survey	76
APPENDIX J: The Hand You Were Dealt™ Focus Group Questions: Students	79
APPENDIX K: The Hand You Were Dealt™ Focus Group Questions: Teacher	81

APPENDIX L: The Game of School: A Learning Journey™ Focus Group Questions	83
SUPPLEMENTAL MATERIALS	84
Instructional Guide for The Hand You Were Dealt Game: Exploring Diverse Minds™	84

**List of Tables**

<b>Table 1.</b> Project Plan	<b>57</b>
<b>Table 2.</b> Project Budget for <i>The Hand You Were Dealt</i> <sup>TM</sup>	<b>59</b>
<b>Table 3.</b> Project Budget for <i>The Game of School: A Learning Journey</i> <sup>TM</sup>	<b>60</b>
<b>Table 4.</b> Student Responses on Self-Reflection Sheets for <i>The Hand You Were Dealt</i> <sup>TM</sup>	<b>61</b>

**List of Figures**

<b>Figure 1.</b> Methodology Process Flow	<b>26, 61</b>
<b>Figure 2.</b> Table arrangements for <i>The Hand You Were Dealt</i> <sup>TM</sup> , Day One	<b>63</b>
<b>Figure 3.</b> Table arrangements for <i>The Hand You Were Dealt</i> <sup>TM</sup> , Day Two	<b>64</b>
<b>Figure 4.</b> Table arrangements for <i>The Game of School: A Learning Journey</i> <sup>TM</sup> , Day Three	<b>65</b>

**Preface: Can You See Me?**

*Since the beginning of time, we exist,  
Like the trees, the water, that co-exist,  
the air that you can breathe,  
But you cannot see me!  
I am like a bird,  
Born to be free,  
So why am I trapped inside of me?*

*Crawling inside an abyss,  
holding onto a crumbling bliss,  
I feel intense pain like shards of glass  
Going into my heart  
I am calling out  
But you cannot hear me!*

*I am sitting in the classroom,  
I cannot speak in this vacuum,  
I cannot read the words in front of me,  
The lights are hurting my eyes,  
All I want to do is flee!  
The loud sounds are piercing my ears,  
The humidity is making me sweat in fear,  
I'm losing my grip,*

*As tears fall down my cheeks, burning like  
a whip  
You tell me to speed  
I need more time to succeed  
The words don't come out right  
I know you cannot see my internal fight!*

*As my heart races,  
I can picture all their faces,  
I can hear the children laughing,  
They just cracked a joke on me,  
And are clapping.  
The appointed jester and now I can't  
breathe,  
As I kick myself underneath,  
My tears just smudged the printed words on  
the pages,  
Straightaway I can't read the phrases.  
I am the child that thinks differently,  
I see the beauty and the sorrow,  
I am the gift that is seen as hollow,  
I can see all of you,  
But none of you can see me,  
I am 2e.*

*--Rashmi Mahendra, June 23, 2021*

## CHAPTER I: Introduction

We come to this doctoral capstone project wearing several hats: professional educator, counselor, educational therapist, cultural minority, twice-exceptional individuals, and mothers. We come from a place of knowing: knowing our children, knowing our students, and knowing from the research that we are not alone in our experiences. As parents, we have both experienced the utter devastation of having a twice-exceptional child traumatized by school experiences, feeling helpless to assist our boys in reconciling their cognitive contradictions and emotional dissonance. They lacked the self-awareness to see how their strengths, cognitive differences, and labels weave together to become a unified self. Olenchak et al. (2016) discuss the long-term impact of those deprived of opportunities to develop coping strategies as adults because, “the ability of 2e individuals to wed one’s cognitive and affective strengths to find a position of personal fulfillment is positive not only for the individuals who flourish but also for the larger society as well” (p. 275).

### **Rationale**

Twice-exceptional students are unique, out-of-the-box thinkers who must be afforded the tools to explore their learning differences, capabilities, diversities, and layers of cultural, intellectual, creative, and emotional selves to build a positive identity. When identity development is supported early, these students have the promise of a solid foundation, enabling them to seek the environments that will help them thrive and learn coping strategies for the obstacles and hurdles they will inevitably face (Assouline et al., 2006; Assouline et al., 2010; Baum et al., 2014; Beckman & Minnaert, 2018; Olenchak, 2009; Olenchak et al., 2016). We intend to create two games that explore the self-awareness of fourth through sixth-grade learners so that they may begin to recognize their unique personhood and face learning and social and

emotional obstacles from a place of wholeness and strength, bolstering their journeys through middle school and beyond.

The experiences of adolescent learners who have both superior cognitive and creative skills, and who have a co-existing hurdle such as a learning disability, Attention-Deficit/Hyperactivity Disorder (ADHD), Autism Spectrum Disorder (ASD), or processing difficulties, can be exhilarating when the skills and talents work together as a unified whole. Alternatively, their lives can become debilitating when the two extremes collide. In the best of circumstances, “hormonal changes, rapid physical and psychological changes, and shifting social group patterns, early adolescence can be a time of social-emotional turmoil” (Baum et al., 2017, p. 242). While these students might thrive in their areas of interest, inside or outside of school, they may struggle academically or socially, causing a high degree of frustration due to the discrepancy between their high abilities and their potentially low scope performance (Baldwin et al., 2015; Baum et al., 2014; Baum et al., 2017; Beckman & Minnaert, 2018, Foley-Nicpon & Assouline, 2020; Gilman & Peters, 2018; Kaufman, 2018; Reis, Baum & Burke, 2014; Reis, Sullivan & Renzulli, 2015). Beckman & Minnaert (2018) explored the social and emotional characteristics of 2e learners, including a broad range of learning strategies, social skills, and personal beliefs that can mask their disabilities, causing them to appear average. They concluded that “the negative emotions, attitudes, and self-perceptions experienced by this population of students means that they are in fact very vulnerable” (Beckman & Minnaert, 2018, p. 17).

### **Statement of the Problem**

Twice-exceptional students are often not recognized for their unique blends of strengths and differences, which often creates a sense of confusion and identity development issues that

cause disengagement. Identity formation is exceedingly tenuous in the transition through adolescence. They live in a world of dissonance. Dissonance may stem from being:

- in special education classrooms that focus on their deficits all day, yet they accomplish extraordinary intellectual tasks at home;
- in resource rooms at school, feeling bored with the content, and not having any resources to reveal talents or strengths;
- in a classroom or cluster designed to serve gifted learners, yet struggling and feeling like an imposter (“I’m not smart, I’m just gifted;” “I’m not gifted anymore.”);
- in a regular classroom, not qualified for gifted nor learning disability (LD) services, and receiving neither services for giftedness, nor dyslexia (504s are common for ADHD, Tourette’s, & ASD – even if the services are mediocre)

(Assouline et al., 2010; Baum et al., 2017; Baum et al., 2014; Beckman & Minnaert, 2018; Olenchak, 2009; Olenchak et al., 2016).

These scenarios illustrate the confusion that is especially pronounced in twice-exceptional learners’ identity formation: how they see themselves as learners, friends, and individuals. Erickson’s fifth of eight stages of development (identity vs. role confusion) pinpoints the personal psychosocial conflicts that are naturally present in adolescence involving confusion about one's social role and often a sense of loss of continuity to one's personality (Cherry, 2019; 2021).

To understand what *identity crisis* is, one needs to understand how identity is defined. Erikson defines identity as a “fundamental organizing principle which develops constantly throughout the lifespan. Identity involves the experiences, relationships, beliefs, values, and

memories that make up a person's subjective sense of self. This helps create a continuous self-image that remains fairly constant even as new aspects of the self are developed or strengthened over time” (Cherry, 2019; 2021).

Role confusion is the term that Erikson used to describe adolescents who are unable to explore who they might become as adults—where they fit in their social, emotional, and academic lives—resulting in being unsure of their place in life. Consequences of role confusion are a weak sense of self and a lack of confidence, which often result in identity crises (Cherry, 2019; 2021).

Psychological confusion results in an identity crisis that can be traumatic. An identity crisis in twice-exceptional students can result when there are severe discrepancies between their abilities and disabilities or performance obstacles. For example, a student who has a superior understanding of content and concepts in literature or history, yet is unable to clearly state their ideas because of dyslexia, autism spectrum disorder, or executive dysfunctions, can lead to anxiety, depression, and a breakdown in their self-view. This often results in a negative self-identity, especially within educational and other institutions. Identity confusion is also about being *smart* in certain areas and at the same time feeling inadequate and seen as challenged. Educational institutions that misunderstand these students’ dualities can exacerbate the source of conflict, and the weight of the dichotomies cause internal disharmony (Baum et al., 2017; Baum et al., 2014; Olenchak, 2009, Olenchak et al., 2016).

When twice-exceptional children’s identity in school is focused on what they are *unable* to do, it fosters low academic confidence, low self-perceptions, and negative emotions, which adds to their internal conflicts about their social standing and impacts their interpersonal relationships (Beckman & Minnaert, 2018). Games can help these students grapple with these

confusions. Social Emotional Learning (SEL) Games explicitly designed for twice-exceptional students allow them to explore who they are—strengths, talents, and obstacles—and grapple with these confusions so they may build a strong, positive sense of self going forward.

### **Significance of the Capstone Project**

For these students to thrive, both their “talents and their abilities must be addressed and afforded opportunities for optimization if overall contentment is to develop” (Olenchak et al., 2016). When students have experienced educational trauma because of their cognitive diversities, interventions must occur as early as possible. During their educational journey, it is beneficial to assist learners in navigating their feelings of frustration and failure, depression, low self-worth, and confusion. Self-Awareness is the first of five social and emotional competencies described by the Collaborative for Academic, Social, and Emotional Learning (CASEL, 2020), and lays the foundation for students to recognize and embrace their strengths and develop coping strategies, guiding them toward a fully integrated positive identity (Assouline et al., 2006; Assouline et al., 2010; Baum et al., 2017; Baum et al., 2014; Olenchak, 2009, Olenchak et al., 2016).

### **Potential Benefits of Game Use for Learners and Families**

To address the identity crisis and confusion felt by twice-exceptional youngsters as they juggle alternate realities, the researchers developed two identity games that provide a vehicle for open discussion and problem-solving. Using a game approach offered students the vocabulary and expressive language to describe situations, characteristics, environments, and triggers that became the first step in expressing their unique experiences and fostering a solid self-identity. Simulation games have been advantageous for students and children to initially experience the

game through another's eyes before acknowledging their experiences and examining their identities (Coward, 2018; Dole, 2001; Dunlap & Rivers, 2018; Durlak et al., 2011; Ruff, 2021).

Executive functioning is an additional source of identity confusion for 2e students. As gifted students, their skills mature later, and as learning challenged students, they often have extreme variations in their executive skills which impact their sense of competence and identity (Webb et al., 2016). Furthermore, using games supports students' executive functions by helping them with working memory (remembering rules), task initiation (making decisions within the game), emotional regulation (to win or lose gracefully), and flexible thinking (taking risks and learning from mistakes) (Center on the Developing Child at Harvard University, 2014; Webb et al., 2016).

Another factor in the identity confusion of students is the lack of understanding by the adults in their lives. These games are also designed for educators and parents to understand what it is like to be a cognitively diverse child in the learning environment. Identity crises can be effectively addressed by incorporating social and emotional learning (SEL) curricula.

The literature reflects the efficacy of learning games for engaging students in developing social and emotional skills by allowing them to experience different situations in a safe environment, disconnected from their personal experiences (CASEL, 2020; Dunlap & Rivers, 2018; Durlak et al., 2011; Ruff, 2021). The expectation is that the game process helps students begin to form a positive identity by reflecting on their growth over time and improving their ability to navigate their social, emotional, physical, creative, and intellectual environments.

### **Definition of Key Terms**

While some terms in the literature hold their original significance, others have blended different perspectives into a unified term. The following definitions describe how these terms

will be used in this study.

*Avatar (Other)*: the experience in the gaming process of inhabiting the persona of another person as the game is played. Playing through an avatar increases emotional safety, the likelihood of risk-taking and exploration, comfort when thinking in new ways, and openness to accept/tolerate/embrace cognitive and self-identity diversity (Dole, 2001, Dunlap & Rivers, 2018; Hromek & Roffey, 2009; Ruff, 2021).

*Augmented Reality Games*: also known as AR, AR are real-time game components that integrate visual and audio content and may be played on a variety of devices.

*Executive Functions*: the mental processes controlling self-regulatory skills, including working memory, organization, emotional control, flexible thinking, task initiation, inhibition, attention, time estimation, etc., and are not fully developed until after the mid-twenties

*Gamification*: an engagement process that uses game design elements such as rewards, points, levels, and feedback in a non-game context

*Identity*: the essential, distinguishing characteristics or personality of an individual that inform life choices

*Identity Confusion*: a developmental time of transition, usually during adolescence, where individuals become unclear of their identity and question their values, beliefs, and sense of self

*Identity Crisis*: a developmental stage occurring when individuals intensely explore various identifying characteristics, including social values and self-beliefs

*Learning games*: games that use entertaining graphics and interactive materials that engage children through play as they learn

*Lived Experience*: the intersectionality of a multitude of asynchronous experiences and comorbid attributes that are unique to each 2e individual

*Role-playing games*: also known as RPGs, players take on the personality of characters who then interact during gameplay, often guided by a master storyline

*Self-awareness*: an awareness of the different aspects of one's personality and individuality

*Simulations*: interactive activities that allow participants to experience a situation from a distinct perspective

*Social and Emotional Learning (SEL)*: is research-backed, school-based programming that develops the skills of self-awareness, self-control, communication, and decision-making that are considered essential for school, work, and life success

*Twice-Exceptional*: individuals with high cognitive potential in one or more domains as well as identified obstacles to their learning success that may include diagnosed or suspected learning disabilities as defined by state or federal policy; these individuals often experience high creativity, extreme asynchronies, and a variety of heightened inner experiences, including sensory awareness, imagination, and non-linear thinking processes

*Video Games*: video games have a variety of platforms that entertain, and engage players in simulations, puzzles, building, etc.; many learning games use an interactive video game format

*Virtual Reality Games*: also known as VR, these games use additional hardware, such as VR headsets that cover ears and eyes, to immerse players in the game or simulation experience

## **CHAPTER II: Literature Review**

This capstone project used the theoretical frameworks and empirical studies about identity development, game theory, and social-emotional learning to formulate games that build positive self-identity for the twice-exceptional learner. The current body of knowledge explores pre-teen and teen identity development and the effectiveness of games used in school settings to increase learning, social, and affective growth. The capstone outcomes were game-centered and included supporting curricula to build positive self-identity specifically for the twice-exceptional learner.

The literature review is divided into three categories; the first defines twice-exceptionality, the second lays the theoretical framework for identity and its formation, and the third section discusses games and their contributions to social and emotional learning in learning environments. It concludes by addressing the gap in the literature.

### **Defining Characteristics of the Twice-Exceptional Learner**

Defining the term twice-exceptional has long been controversial and challenging. In 2011, Lovett and Sparks set off a debate about the identification criteria of gifted and learning disabled learners (G/LD), narrowing the criteria to include only those students who are struggling academically, who are intellectually gifted as measured by their Full-Scale Intelligence Quotient (FSIQ) scores of at least 120, and whose norm-referenced academic achievement scores rank below the 85<sup>th</sup> percentile. Their review of existing empirical studies noted that both fields--gifted and learning disabilities-- had tenuous and often fluid means of identifying criteria separately, making it more challenging to assess them. However, they were clear that the designation is restricted to academic performance to provide educational services to students exhibiting poor academic performance.

Though debates and nuances in the definitions of giftedness, learning disabilities, and gifted with learning disabilities persist (Baldwin et al., 2015; Baum et al., 2014; Baum et al., 2017; Beckman & Minnaert, 2018; Foley-Nicpon & Assouline, 2020; Gilman & Peters, 2018; Kaufman, 2018; Reis, Baum, & Burke, 2014; Reis, Sullivan & Renzulli, 2015) a consensus of views by two leading organizations, the National Commission on Twice Exceptional Students (NCTES) (Reis, Baum & Burke, 2014) and the National Twice-Exceptional Community of Practice (2e CoP) (Baldwin et al., 2015) have emerged.

NCTES focuses on a definition to be used by schools to improve the identification of these students:

Twice-exceptional learners are students who demonstrate the potential for high achievement or creative productivity in one or more domains such as math, science, technology, the social arts, the visual, spatial, or performing arts or other areas of human productivity AND who manifest one or more disabilities as defined by federal or state eligibility criteria. These disabilities include specific learning disabilities; speech and language disorders; emotional/behavioral disorders; physical disabilities; autism spectrum disorders (ASD); or other health impairments, such as Attention Deficit/Hyperactivity Disorder (ADHD) (Reis, Baum & Burke, 2014, p. 222).

The 2e CoP focuses on the circumstances resulting when the “non-cognitive” (Beckman & Minnaert, 2018) aspects of giftedness and learning disabilities intersect and offer several requirements for optimal development:

Their exceptional ability may dominate, hiding their disability; their disability may dominate, hiding their exceptional ability; each may mask the other so that neither is recognized or addressed. 2e students, who may perform below, at, or above grade level, require the following:

- Specialized methods of identification that consider the possible interaction of the exceptionalities,
- Enriched/advanced educational opportunities that developed the child’s interests, gifts, and talents while also meeting the child’s [*sic*] learning needs,

- Simultaneous supports that ensure the child's academic success and social-emotional well-being such as accommodations, therapeutic interventions, and specialized instruction (Baldwin et al., 2015, pp. 212-213)

These collaborative definitions emphasize the need for improved policy, ongoing professional development, teacher training, and the use of best practices in the service of these learners.

Several researchers discuss the importance of considering the optimal circumstances where a child might thrive, including the physical, emotional, social, creative, and intellectual environments that support the learner to discover their interests, reveal their talents, and produce evidence of their cognitive abilities (Baum et al., 2017).

Though not focused on the identification of these students, it is critical to note that when students are not recognized, are misdiagnosed, or are misunderstood for their high abilities or their disabilities, their identity and sense of self are diminished, causing low self-efficacy, low self-worth, depression, frustration, and negative behaviors (Baldwin et al., 2015; Baum et al., 2014; Baum et al., 2017; Beckman and Minnaert, 2018, Brody & Mills, 1997; Foley-Nicpon et al., 2011);

Their acute sensitivity and painful awareness of the lack of congruence between academic potential, school achievement, and social competence can cause many of these students to become extremely depressed and require counseling and/or medication to deal with their frustration over discrepancies between what they can and cannot do (Baum et al., 2014, p. 165).

Beckman and Minnaert (2018) discuss the broad range of skills and behaviors they consider to be non-cognitive— the psychosocial and soft skills students need to navigate their worlds, such as self-identity, attitudes, and use of learning strategies that affect academic performance but are not necessarily recognized through achievement or cognitive batteries. One

of the study's findings is that "the negative emotions, attitudes, and self-perceptions experienced by this population of [identified twice-exceptional] students means that they are, in fact, very vulnerable" (p. 17). Along with this notion of intangible non-cognitive skills is the definition of giftedness by The Columbus Group that encapsulates some of the qualities often seen in our twice-exceptional population:

Giftedness is asynchronous development in which advanced cognitive abilities and heightened intensity combine to create inner experiences and awareness that are qualitatively different from the norm. This asynchrony increases with higher intellectual capacity. The uniqueness of the gifted renders them particularly vulnerable and requires modifications in parenting, teaching, and counseling in order for them to develop optimally. (The Columbus Group, 1991)

### **Theoretical Frameworks of Identity Formation**

In this section, theoretical concepts surrounding identity formation in stages are discussed. These include the work of Erik Erikson (1968) and other seminal models of identity formation in twice-exceptional populations (Olenchak et al., 2016).

This review focuses on the psychosocial aspects of identity. Different developmental theories discuss the importance of having a clear identity (Arnett, 2000; Erikson, 1968; Kernberg & Caligor, 2005). Nonetheless, studies differ in the conceptualization of identity. Erikson (1968) established the variance between the stages of identity development and the distinctive elements in each stage.

Erikson (1968) emphasized that the feeling of having a personal identity is based on "the perception of the self-sameness and continuity of one's existence in time and space" (p. 50). "This demonstrates Erikson's notion that identity provides individuals with a sense of continuity across time and coherence across contexts" (Van Doeselaar et al., 2018). Erikson's Stages of Psychosocial Development Theory was introduced in the 1950s by the psychologist and

psychoanalyst Erik Erikson (Orenstein & Lewis, 2020). The theory postulates eight consecutive stages of individual human development influenced by biological, psychological, and social factors throughout the lifespan, similar to an ecological perspective (e.g., Bronfenbrenner, 1977; Bronfenbrenner & Evans, 2000), in its purest terms, emphasizes the interactions between systems as critical components to be able to understand any phenomena. “To explain growth and change through the lifespan, the developmental stages of life are initiated by distinct transitions in physical, cognitive, and socioemotional [*sic*] developments. Different theories of developmental psychology have different stages of development” (Chung, 2018). The eight stages of psychosocial (ego-social) development are infancy, toddlerhood, preschooler, schooler, adolescence, young adulthood, middle adulthood, and late adulthood (Erikson, 1968). Erik Erikson’s eight stages of psychosocial development align with the maturation process. Even though Erikson’s model goes into adulthood, we will focus on the stages of childhood and adolescence.

The *Bull’s Eye Model of Affective Development* (Olenchak, 2009) elaborates on the formation of identity and its different influences. “One’s talents and abilities must be addressed and afforded opportunities for optimization if overall contentment is to develop” (Olenchak et al., 2009, p. 257). The authors discuss the impact of environmental (social & physical) and situational factors contributing to the person’s development. Factors include the person’s physical interactions and social factors such as societal pressures, family values, and peer expectations. The authors postulate the importance of “meta-affect” where 2e individuals use their self-awareness and understanding to “regulate and refine emotions” and “navigate the complex interpersonal, socioeconomic, cultural, and political dimensions...that can assist them in defining who they are naturally” this process offers the individual “the value and means for

integrating thoughts and feelings in the meta-affective context” (Olenchak et al., 2009, p. 260). The authors also consider the significance of finding a “personal niche” where a person’s environment, skills, and abilities are appropriately matched. Olenchak et al. further describe several research studies demonstrating the potential for poor outcomes when the student is undiagnosed as being twice-exceptional, with emergent themes being the role of guilt, confusion, difficulty with executive functions, or were not aware of the resources that might be available to them in college. “For the 2e individual, this stage [Meta-Affect] fosters an imperative reframing of self and life situations so that talents are emphasized and weaknesses de-accentuated” (Olenchak et al., 2009, p. 271). The conclusion offers recommendations for schools to “provide specific knowledge and skills to help young people come to terms with (1) who they are naturally...(3) the importance of, and the means for, spending time integrating thoughts and feelings in a meta-affective manner” (Olenchak et al., 2009, p. 274).

Developing knowledge and skills specific to 2e children to learn, feel valued, accepted, and grow into individuals that they are meant to be, are what educators need to be contemplating. How can a curriculum be designed that is engaging and useful in developing self-awareness and positive identity formation of a 2e child in the learning environment?

### ***Identity and Twice-Exceptionality***

For over three decades, researchers have established that a child can be both gifted and have a disability (Baum, 1989; Brody & Mills, 1997; Fugate, Zentall, & Gentry, 2013; Neumeister et al., 2013). Commonly referred to as twice-exceptional, these students possess unique learning and social-emotional characteristics that often result in uneven academic performance and heightened frustration. Baum (1989) discussed three categories of twice-exceptional students: some are easily identified as gifted, but compensatory strategies mask their

learning disabilities; others have identified disabilities, but their gifts and potential are unrecognized, and yet others go unrecognized for both their giftedness and disability because their superior intellectual ability and their undiagnosed disability mask each other. When these three situations play out in the classroom, a twice-exceptional student may experience feelings of confusion and start asking questions; “*am I smart,*” or “*am I only learning disabled,*” or “*am I neither?*” “*Who am I?*” is a crucial question that needs exploration from literature written on twice-exceptional students and their identity formation.

Vespi and Yewchuk (1992), in a phenomenological study of four twice-exceptional 11-year-old boys, showed early support for this idea, finding that twice-exceptional students showed social skill difficulties and self-reported that they do not feel that they fit in with peers. The “social and self-perceptions of twice-exceptional students” (Barber & Mueller, 2011) are affected by their academic self-worth. Barber and Mueller (2011) presented an understanding of the academic self through a sociocultural perspective for twice-exceptional students. This is a multidimensional understanding of the self and how it is constructed in forming an identity. The uniqueness of twice-exceptional students is their co-existing duality of strengths and learning disabilities (Townsend & Brown, 2016). The relevance of this research is in the significant data showing that sociocultural forces within the environment influence the academic self-concept, which is critical for twice-exceptional students and their identity.

Cultural practice by institutions influences the formation of academic identity. Misdiagnosis is a widespread issue for the gifted 2e community, and proper assessment is essential before determining suitable social and emotional support at home and in school. What can add further obstacles is the research surrounding gifted children and misdiagnoses or dual diagnoses (Webb et al., 2016). “Many bright youngsters demonstrate behaviors that are

indicative of more than one diagnosis, and because of labeling confusion, some children are inappropriately served” (Baum & Olenchak, 2002).

The complexities of identity formation in twice-exceptional children can have damaging consequences (Dole, 2001). This is like an eclipse where the whole child is not acknowledged. An eclipse casts darkness, so if one side of a twice-exceptional child is constantly in the dark, that part of the child is made to feel invisible. Perhaps the most crucial point of the research conducted by Dole (2001) is the recommendation that school programming must consider the emotional needs of the twice-exceptional child, not just their academic progress. Dole (2001) emphasizes the importance of counselors who are adept at fostering learners' knowledge of their contrasting strengths and weaknesses when planning intervention strategies. The child has to feel safe and valued in the classroom environment so that their potential can surface and develop. Teaching self-awareness in a safe environment is foundational to positive identity formation.

### ***Building Esteem and Positive Identities***

Even though there is limited empirical evidence of twice-exceptional students and self-concept (Foley-Nicpon et al., 2015), stigma is prevalent in their educational and social-emotional experiences. Sometimes those differences are invisible; the suffering becomes invisible as twice-exceptional children look ‘normal’ on the outside. The role of stigma that influences the concept of the self - and identity issues cannot be underestimated. Twice-exceptional children are unique and their needs are complex (Ronksley-Pavia et al., 2019). “Twice-exceptional students are psychologically vulnerable, resulting in low academic self-concept and low academic self-efficacy” (Wang & Neihart, 2015). One might ask, “How can educators help twice-exceptional students understand their complex and often paradoxical identities?”

### **The Role of Games in School-based Social-Emotional Learning**

This section reviews the differences between gaming and gamification as used in learning contexts; the concepts and research behind school-based social and emotional learning (SEL) programming; the empirically designed framework that guides SEL curricula in school; and a survey of game styles used for SEL programming.

Using games as a pedagogical approach is becoming increasingly popular. It is not surprising as research has shown that “using games in teaching can help increase student participation, foster social and emotional learning, and motivate students to take risks” (Nguyen, 2021. par. 5). The literature distinguishes between learning games, gamification, therapeutic games, and SEL games. Gamification is used in educational settings to increase motivation toward learning goals. Alshammari (2020) concluded that using game elements potentially supports a broader diversity of learners because it addresses a wide range of characteristics. Since twice-exceptional students have such distinct profiles, the concept of using gamification or gaming elements has the potential to enhance motivation and learning outcomes.

While many games that support learning are online and have popular video gaming characteristics, others use existing commercial video games as the setting to discuss SEL competencies (Rivers, 2018; Ruff, 2021; Yusoff, 2018). In a meta-analysis of forty-one articles, Yusoff et al. (2018) describe the efficacy and potential for effective learning among educational video games, finding that most search terms for gaming were related to cognitive tasks. Very few focused on behavioral or social skills. The role of emotions and social skills are embedded as part of the learning design to increase motivation and engagement. At that time, few video games included an explicit SEL component.

### ***Social and Emotional Learning Competencies***

The Collaborative for Academic, Social, and Emotional Learning (CASEL) is a nonprofit organization that “provides a systematic framework for evaluating the quality of social and emotional learning programs and shares best practice guidelines for school, district, and state teams on how to select and implement SEL programs” (CASEL p. 5). CASEL is a central resource for SEL researchers, game, and program developers. The fundamental elements of SEL are to “foster positive identity, agency, school connectedness, and school climate” (p.15), and to provide a dynamic interaction between the developers and the students, especially during adolescence, so that youth are participatory informants in their own development. CASEL has identified five social and emotional competencies: self-awareness, self-management, social awareness, relationship skills, and responsible decision-making. The critical elements of self-awareness include the capacities to recognize one’s strengths and limitations, a “well-grounded sense of confidence and purpose” (p. 17), integrating a personal and social identity, identifying one’s emotions, experiencing self-efficacy, and developing interests and a sense of purpose. The [CASEL Guide Update](#) (2020) notes that the rationale behind these core concepts is based on Erikson’s Identity Development Model, describing the systematic importance of identity formation in the adolescent years (Erikson, 1968; McLeod, 2020; Orenstein & Lewis, 2020). When considering SEL programming, this document advocates for facilitators to help empower students to become agents of change and find their voice through community action projects and project-based learning.

### ***The Role of Facilitators***

CASEL also has recommendations for training that encourage teachers to reflect on their preferred instructional styles, examine and build awareness about their personal biases, and offer

these professionals opportunities to experience new ways of thinking in their own safe and supportive environment. The framework notes the importance of facilitators and teachers actively practicing SEL programming before implementing new strategies--a key component of our games' curricular planning process. Several studies emphasize the importance of the role of the facilitator when leading SEL programming and the importance of the debriefing process.

The role of the facilitator cannot be understated: to empower students, they must be led by trusted adults who are supportive, positive, and empathetic. They must be active listeners, respond reflectively, and ask open-ended questions (Coward, 2018). Facilitators, whether a counselor, teacher, or educational therapist, must be caring adults who can ensure a safe environment where students believe they have allowance to make mistakes safely, trust their instincts, learn from their feedback, be praised for taking risks, and try again or attempt a different solution (Coward, 2018; Dunlap & Rivers, 2018; Galbraith, 2018; Hromek & Roffey, 2009). When working with twice-exceptional learners, developers anticipated situations that occurred because of the complex intersectionality of this population's sensitivities, interpersonal skills, disabilities, talents, creativity, and intellectual reasoning. Hromek & Roffey (2009) offered a supportive debriefing checklist highlighting the facilitator skills of reflective listening, identifying values, and problem-solving.

### ***Game Development Considerations***

In the development of games and programming, several studies emphasize the need to create interactive experiences where students have the luxury to experiment with their emotional and social skills by role-playing as a different person so they may be more inclined to try out new skills (Baum et al., 2017; Hromek & Roffey, 2009; Ruff, 2021; Stamper, 2016).

Many of the games used to explore CASEL Competencies focus on social skill development and emotional intelligence. Using physical and visual components to engage in these role-playing interactions was a principal consideration when the game components and reflection activities were being developed for upper elementary and middle school students.

Dunlap and Rivers (2018) sought to evaluate several online games designed for teens as part of SEL programming but were disappointed that few filled their criteria. Their background discussion notes the importance of teens exploring their identity, independence, community rules, and social acceptance. In addition to acknowledging CASEL's Competency Framework (CASEL, 2020), they identify four best practices in general game design, including (1) games must have clear rules with a quantifiable outcome; (2) they must be 'autonomous' offering the player to make their own, informed decisions [agents of change], and "feeling like their choices matter" (p. 134); (3) problems should be challenging but solvable, and (4) failure must be normalized so the player learns from and can rectify their mistakes through feedback. Additionally, they note that teens specifically seek social spaces that "foster and deepen learning" (p. 134), game spaces should provide opportunities for "identity and role experimentation" (p. 135), and there should be multiple, open-ended ways to complete a challenge that offer opportunities for critical thinking (Dunlap & Rivers, 2018). Tabletop role-playing games are another avenue for interactive play that is highly engaging and safe for practicing social skills and emotional regulation using a tactile element not found in video gaming (Ruff, 2021).

In an introduction to a special SEL issue of *Well Played*, a peer-reviewed journal dedicated to gaming principles, Rivers (2018) discusses the importance of multi-sensory, joyful, challenging, social, relevant, and engaging play that also teaches social and emotional

development and critical life skills. The author describes a “strengths-focused” perspective influenced by Seligman and Csikszentmihalyi, from positive psychology, cultivating well-being by identifying strengths, interests, natural abilities, engagement, creation of positive emotions, and positive relationships. As part of game development, the author discusses the importance of including challenges that require the players to learn, adapt, and grow. All of the elements described by Rivers and CASEL were considered during the game development process.

No matter the program or game used, the researchers experienced the importance of allocating adequate time and resources to implement the games and SEL process to help students integrate and transfer the skills to their daily lives in and out of school. Follow-up and continued practice of the skills gained during gameplay is critical for lasting results (Durlak et al., 2011).

### **Defining The Gap**

Despite the excellent resources found revealing the theoretical foundations of identity formation and the use of games to foster learning and social and emotional development, there was a lack of articles or empirical studies about the role of games aimed at self-awareness and positive identity formation for twice-exceptional learners. The two games that were developed, *The Hand You Were Dealt Game: Exploring Diverse Minds™* (*The Hand You Were Dealt™*) and *The Game of School: A Learning Journey™* (*A Learning Journey™*), along with the facilitator guides and accompanying activities, fill a need for improving the positive self-identity of cognitively diverse learners. These games focus on fostering a strong self-awareness and sense of self that embraces students’ strengths and challenges. With such understanding, students in the pilot sessions described themselves using a positive lens for their unique qualities, opening the possibility of similar students in other learning settings having comparable experiences.

With these insights and definitions in mind, the games as developed will support students with high cognitive potential in one or more domains along with obstacles to their learning success that may include diagnosed or suspected learning, emotional, behavioral, or social issues as defined by state or federal policy. In addition, these students often experience high creativity, extreme asynchronies, and a variety of heightened inner experiences, including sensory awareness, imagination, and non-linear thinking processes. The most vulnerable of these students may believe they are the only souls who think differently because their experiences do not match those of peers in either the gifted or learning resource classrooms. These are the students to whom the researchers dedicate *The Hand You Were Dealt*<sup>™</sup> and *A Learning Journey*<sup>™</sup> so they may encounter familiar situations, feelings, behaviors, and interests within an emotionally and socially safe environment.

As the games were developed, the researchers reviewed and incorporated some of the many lists generated by local, district, state, and national organizations, describing the qualities and behaviors of this population, based on the seminal works by Susan Baum, Barbara Clark, James Delisle, Judy Galbraith, Leta Hollingworth, Annemarie Roeper, Robin Schader, Linda Silverman, James Webb, and so many others. We stand on the shoulders of giants.

### **CHAPTER III: Project Design**

This chapter describes how the idea was formulated and the steps taken in the development of the games. It then provides detailed information about testing the game with students and teachers to obtain feedback. Finally, it explains game revisions and recommendations for use. This chapter is divided into four sections listed below:

1. Background, vision, and purpose
2. Steps in developing the prototype

3. Pilot testing and procedures
4. Refinement and recommendations

The capstone project followed the project plan, as shown in Table 1, and the methodology process, as shown in Figure 1. The project plan shows all the steps that the researchers followed from project initiation to project closure. The project plan is divided into four broad sections: Design, Build, Pilot, and Project Close. These four phases had timelines and tasks listed beneath them, showing the duration of days spent on each task and noting when the tasks were open or closed.

### **Background, Purpose, and Vision**

The vision for this project was to create a core set of games to specifically support the social and emotional learning (SEL) needs of gifted and twice-exceptional learners in upper elementary and middle school. The two games were developed to build a positive view of personal identities for students with learning profiles outside the norms usually seen in public and independent schools. These games were designed to empower students to explore and speak about their strengths, interests, and obstacles from a positive perspective and to be able to describe the educational environments where they thrive.

The two games offered small groups different SEL tools where they explored their thinking processes (implicit biases) about their self-views. The research provided the basis of the game development process. The purposive selection of students who are still young, having limited expressive ability to discuss their unique sense of identity as an evolving process (Erikson, 1968), can often be traumatic for these twice-exceptional students (Baum et al., 2017; Olenchak et al., 2016). For this reason, avatars and awareness cards were created to offer a fun and engaging shield while interacting with a simulated school year or curated attributes from a

less personal perspective. This developmentally appropriate awareness of others (theory of mind) increases a child's ability to create lasting relationships and attunes them to their own needs, strengths, and quirks (Dole, 2001, Dunlap & Rivers, 2018; Hromek & Roffey, 2009; Ruff, 2021).

Hansen had previously developed a game (Hansen, 2016) that was used primarily in workshops for teachers and parents and in her educational therapy practice in a one-on-one setting to enhance awareness about the complexities of cognitively diverse learner profiles. In this project, the goal was to adapt and transform the game into an interactive school-based activity that would be used in a classroom setting or in small groups facilitated by school staff.

Mahendra created a game that addresses the dually differentiated needs of the twice-exceptional learners through a simulation-based experience in a classroom setting that brings forth the paradoxical conditions that they might encounter in their academic school year.

Together, the two games support a forward-thinking positive view of a child's nascent and changing identity as they move into adolescence.

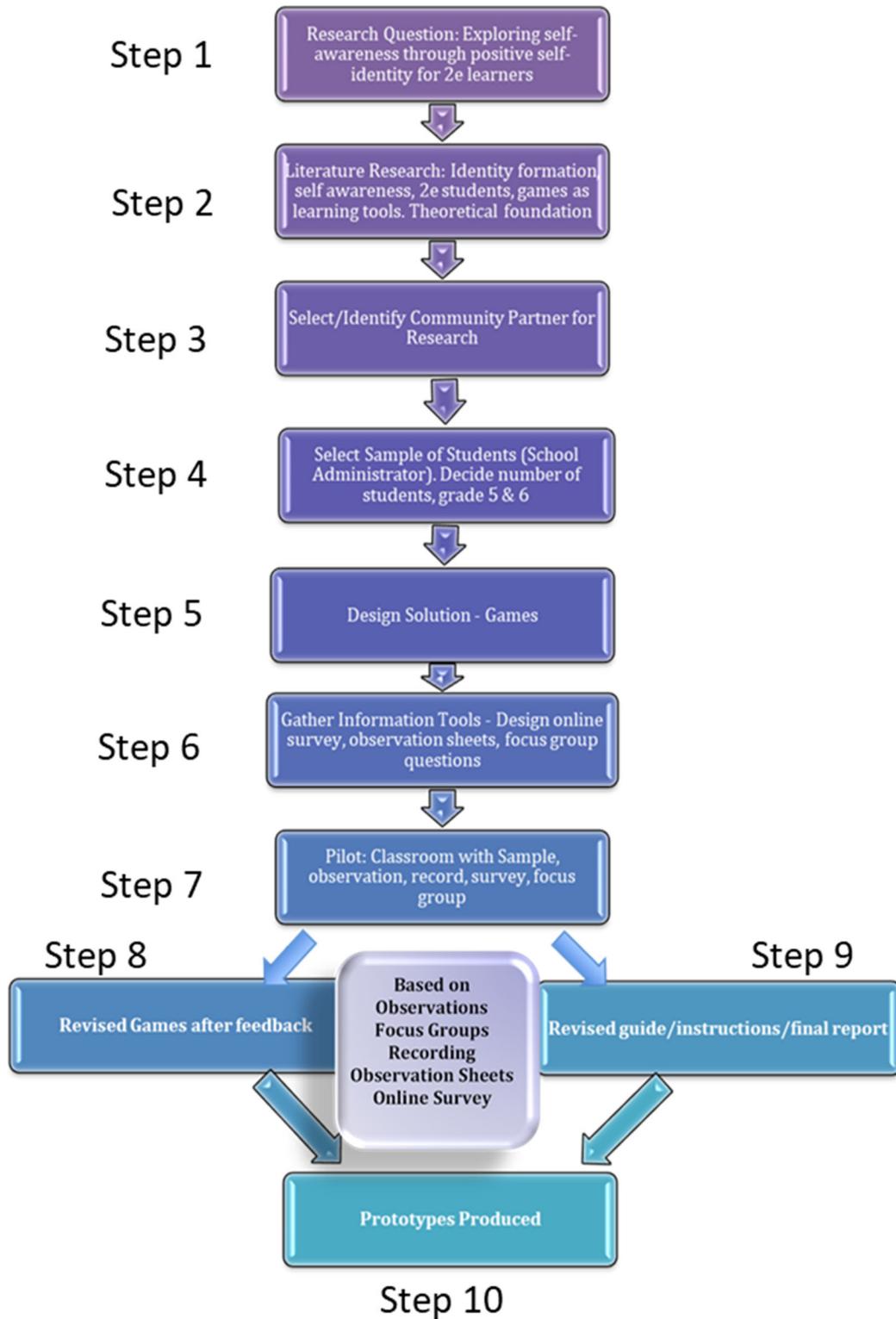
### **Steps in Developing the Prototype**

The deliverables of this capstone project are a board game, *The Game of School: A Learning Journey*<sup>™</sup>, and a card game, *The Hand You Were Dealt: Exploring Diverse Minds*<sup>™</sup>, for use by classroom teachers, educational therapists, parent educators, and school counselors. The games include instructions and an instructional guide for players and facilitators.

The steps that the researchers took in developing the prototype games (*The Hand You Were Dealt*<sup>™</sup> and *The Game of School*<sup>™</sup>) are shown in the methodology process flow in Figure 1. Beginning with the first step (Step 1, Figure 1) from the research question; Using games to explore positive self-identity for twice-exceptional learners. The researchers theorized that

**Figure 1**

*Methodology Process Flow*



interactive games could be part of a social, emotional learning (SEL) model for twice-exceptional learners. The second step (Step 2, Figure 1) was a deep dive into the literature and empirical research of games, twice-exceptional learners, and theoretical foundations to support the capstone project trajectory.

The third step (Step 3, Figure 1) was finding a community partner (school) with willing teachers, parents, and students, where researchers could conduct the pilot of the two games.

The fourth step (Step 4, Figure 1) of the process was to have the administrator liaison purposefully select the sample of twice-exceptional students within the age range of fourth to sixth grade to play the games. In the fifth step (Step 5, Figure 1), the researchers developed their games and the accompanying tools to support the experience. Both research designers worked closely with a professional graphic design artist who translated their concepts, intent, and specifications into color schemes, illustrations, and an overall integrated, high-quality, pre-production product. For example, many drawings were provided for *The Game of School*<sup>TM</sup> by the researcher explaining the colors and space design using excel and prints, while character designs and a communicative logo were the focus of the collaborative efforts for *The Hand You Were Dealt*<sup>TM</sup>. In the sixth step (Step 6, Figure 1), the researchers developed several data collection tools, including observation sheets, online surveys, teacher reflection surveys, and formulated questions that were to be asked during the focus groups. In addition to observations, the researchers decided that a recording device would be placed in the rooms where the pilot experiences (seventh step) would take place. The audio provided data that was collected and recorded using *Otter.AI* transcription software. This data was instrumental in developing key themes and quotes that could be analyzed and compiled for the key findings section from the transcripts, surveys, and observation notes.

### **Pilot Testing and Procedures**

For the project's pilot phase, which was the seventh step in the methodology (Step 7, Figure 1), teacher consent was obtained, and consent forms and assent forms were sent to the parents and students to sign (as per IRB specifications).

The community partner where the pilot took place was an independent school serving fourth through twelfth-grade students on the west coast of the United States whose vision is to support students' academic, social, and emotional development. The game designers chose this location because the school actively recruits twice-exceptional students, having both diagnosed learning disabilities and clear evidence of cognitive strengths in the gifted range. Staff at this school are open to seeking novel experiences to support students' self-awareness as they concurrently grow their skills in both preferred and less-preferred subjects.

The pilot took place in the elementary division of the partner school, and twice-exceptional students were the target audience for these games. This school was a perfect community partner. The social and emotional well-being of these students was well supported during the pilot of the games by the game developers, the facilitator, and the administrative liaison. Appendix A contains the Community Partner consent agreement and Appendix B contains the Informed Consent for invited teachers interested in facilitating the games. The Bridges Graduate School Institutional Review Board (IRB) committee oversaw the ethical and legal considerations of working with minors and both researchers earned PHRP Certificates before working in the school setting.

Students were purposefully selected by the administrative liaison from fifth and sixth-grade volunteers who had completed and returned, with 'wet' signatures, both the parental consent and student assent forms, which were then placed in a locked cabinet off-site as per the

IRB committee. Students were purposefully divided into groups of four to five participants to play the games. Appendix C contains the family cover letter, followed by Informed Consent for parents and guardians in Appendix D and the Informed Assent for students in Appendix E.

Working with children is always an ethical concern and the researchers maintained individual confidentiality while attending to the social and emotional well-being of the students involved in the focus groups. Rules were established and modified as needed to create a safe emotional environment. Prior to bringing the game to the school, the doctoral committee consulted on the game elements to assess the developmental appropriateness of the cards, instructions, debrief protocol, observation checklist, and reflection documents. Participating teachers were trained as facilitators of the game, signed informed consent letters (Appendix B), and asked to provide revision feedback before the final prototypes were revised.

Discussion records were kept in a locked cabinet, while computer files referring to individual students were kept on a thumb drive that was not connected to the internet that was kept in a secure, locked location. *Please note that after 60 days of this report being approved, all data will be erased and destroyed by shredding the papers and deleting the computer files permanently.*

### **Refinement and Recommendations**

Steps 8 (revise games after feedback), Step 9 (revise guide, instructions, write final report) and Step 10 (produce final prototype) were the final steps. The selected students provided information through their perceptions of the game prototypes through their authentic observations of their experience playing the game. Their self-reflection of these experiences provided important feedback for adjustments and refinement of the games. The knowledge gained from the review of the literature, post-game student reflections, and teacher observations

informed the revisions of the games (prototypes) that were part of this capstone project. This process guided a continuous cycle to refine the games and create the instructional guides for their appropriate use.

Having multiple days to pilot the different games allowed the researcher-developers to adjust the survey tools and focus group questions between game sessions. The observation worksheets for teacher-facilitator and students were the same for both games, as seen in Appendix F, while the survey for *The Hand You Were Dealt* (see Appendix G) was revised for clarity for *The Game of School* (see Appendix H). The researchers used Google Forms as their survey tool, and students had the choice of completing them online or using paper and pencil. All students used the online format. The focus group questions are listed in Appendix I for *The Hand You Were Dealt* and Appendix J for *The Game of School*.

The next chapter explores the key findings of both the games, where recommendations are provided along with key themes.

#### **Chapter IV: Key Findings and Results**

The purpose of piloting the games was to revise them according to observing the play with the target audience. Researchers were able to capture and record data that affirmed whether they were on the right track in the creation and development of the games.

##### **Key Findings**

The key findings of both the games piloted can be categorized into three sections. These three sections are: common key findings for both games, the key findings of *The Hand You Were Dealt Game: Exploring Diverse Minds™*, and the key findings of *The Game of School: A Learning Journey™*. During the pilot, the group of neurodiverse learners exhibited a high degree of self-awareness and an equal need to understand themselves, which emerged during the

gameplay observations of their questions and comments during the discourse held in the discussions and focus groups.

The pilot sessions took place in a specialized school setting where the groups of students were already fairly self-aware because of the school's emphasis on teaching social and emotional learning skills and providing a safe emotional, physical, intellectual, creative, and social environment. Figures 1, 2, and 3 show the table arrangements for the different days when the pilots took place.

### **Key findings that were common between both games**

#### ***Facilitator Skill***

It was noted that there was a more natural flow of information amongst the students when the facilitator exhibited specific skills. These skills include a familiarity with the group of students, listening and observing during gameplay, asking follow-up questions (“What do you mean by that?”), and acknowledging player commentary during the post-game discussion, which helped students expand on their thoughts and consider alternate points of view. With these facilitation skills, these games become innovative tools for self-exploration.

#### ***Observations from Players***

The players revealed astute self-observations that showed how they put the games into personal frameworks. Some comments revealed their desire to create meaning from different elements in the game as to how the games should be played. For example, in *The Game of School; A Learning Journey*<sup>™</sup>, the students interpreted the numbered spaces on the board as ages, celebrating when each player became an adult on square 18. In contrast, one student in *The Hand You Were Dealt*<sup>™</sup> was disconcerted that the DMC<sup>™</sup> as pictured on the cube was “Athletic Mover,” which was so different from himself and his view of the world that he left the game.

Other students saw ways to create literary or historical characters. In each pilot session, students brought their unique cognitive experiences and thinking to the games. From these observations, the game designers were confident that there would be a broader audience for the two games, especially students who had not had the opportunity to explore their unique experiences in an emotionally and socially safe environment.

### ***Role of the Facilitator in the Games***

In both games, the facilitator's presence proved crucial to helping the students play and understand the embedded experiences within the games. After observing how a single facilitator was stretched to support two groups of players during *The Hand You Were Dealt*<sup>TM</sup>, the researchers noted the potential benefit of having the facilitator sit and play along with the students as both a model of expressive thinking and a way of gathering comments to explore during the post-game discussions. The researchers observed that when a facilitator was engaged, they spotlighted specific comments about implicit biases and encouraged players to expand on their thinking. For example, in *The Game of School; A Learning Journey*<sup>TM</sup>, when Player 1 was questioned about a comment, "That's just not fair," the facilitator asked, "why?". Player 1 explained that the accomplishment on that spot should have warranted a bigger leap along the board spaces because the task was difficult and warranted a larger award; other players agreed. This exchange explicitly demonstrated an understanding of the reward system of the game. These games are most revealing when conversations take place at the right time—clarifying and asking students to reveal their evidence about comments should not be missed—and must be balanced by the free flow of students' authentic reactions.

### ***Allowing a Free Flow of Discussion***

When ideas come up organically, the discussion questions and comments flow freely. During the pilot, when facilitators listened and observed carefully and took opportunities in the moment to ask probing questions, the depth and quality of the discussion grew. Bringing these moments together in a larger group after the gameplay, students shared their thinking and received a broader sense of their ideas. For example, in *The Hand You Were Dealt*<sup>™</sup>, a student made a comment during the game that being “a picky eater” was horrible, “and I’m horrible because my parents say picky eaters are horrible.” When discussed with the larger group after the game, others enthusiastically joined in by discussing other habits that irritate family and friends, but with the facilitator guiding them, the comments became a discussion about how those attributes might also be assets. For example, students discussed how “picky eaters” often have discerning palettes, which is a talent of many chefs.

### **Engagement Levels**

There was a very high level of engagement during both the games, with players smiling, attentive, and discussing the elements of the games. Whether it was the nine students in two groups during *The Hand You Were Dealt*<sup>™</sup>, or the four players for *A Learning Journey*<sup>™</sup>, students were engaged and talking about the game process. In *The Hand You Were Dealt*<sup>™</sup>, Player 3 expressed specific characteristics of his DMCT<sup>™</sup> energetically, while table two had an animated discussion about what constituted a “good” trait from a “bad” one—a key self-awareness theme within the game. In *The Game of School: A Learning Journey*<sup>™</sup>, the players insisted upon finishing the game, even when the time period ended, because they wanted to see one of the players complete the objective of the game—to win.

### ***Comfort Levels During Game Play***

Some students became uncomfortable because they saw elements of themselves inside the game. One student left the room; others became silly. This was true for both games. Observations of discomfort are critical for facilitators, so they may follow up privately with students to see if there might be an underlying issue. Interesting to note, the students who left the games returned to play again, and they, along with several of the sillier students, participated in the discussion with insight and made astute comments in their survey.

### ***Key Findings for *The Hand You Were Dealt Game: Exploring Diverse Minds*<sup>TM</sup>***

The participants were nine sixth-grade students led by one of their teachers. The students were purposefully selected and placed into groups by the administrator-liaison and the lead teachers. *The Hand You Were Dealt*<sup>TM</sup> was played twice to pilot the design of two reflection activities. In the first session (S1), students were encouraged to create an avatar (*DMC*<sup>TM</sup>) and to consider the attribute cards as reflections of a character outside of themselves. The primary reason for developing the *DMCs*<sup>TM</sup> was to instill a safe social and emotional environment that distances them from explicitly revealing personal beliefs in a public group. Using avatars helps to establish emotional safety around the game experience (Baum et al., 2017; Hromek & Roffey, 2009; Ruff, 2021; Stamper, 2016). The second session (S2) focused on creating a profile from the cards that reflected their own personal identity and a self-reflection activity to simulate the insights gained through the experience and discussion. Each game required about 50 minutes, including a seven-minute introduction, twenty minutes for the card game, and fifteen to twenty minutes for the discussion and reflection activity.

***Key Finding 1***

While the facilitator introduced the game, students were talking and may have missed some instructions. Two clarifying points stood out that needed to be addressed:

- The sample introductory script needed to provide a clearer purpose and goal to guide students as they played.
- The concept of negotiation as a communication skill needs an explicit discussion prior to play to avoid observed conflicts when students were simply trading cards with another without their consent.

***Key Finding 2***

Player 8 left *The Hand You Were Dealt*<sup>TM</sup>, in S1, when the DMC<sup>TM</sup> Cube character he rolled was seen kicking a ball with the title “Athletic Mover.” Player 8 claimed he was “the antithesis of an athlete” and therefore incompetent to choose characteristics for someone so different from himself. The child self-comforted by moving to a spot in the classroom where he could listen but did not need to participate. One of the adults checked on him and found he was content to stay there until the discussion portion of the game began. To his credit, Player 8 participated in the S1 discussion, voicing his opinion that the DMCs<sup>TM</sup> should be self-selected instead of randomly chosen by rolling the cube. Notably, he returned to play in S2 as himself and was observed to be engaged and enjoying the process (Observer One).

***Key Finding 3***

Increasing self-awareness and revealing unintentional, or implicit biases is a central theme of *The Hand You Were Dealt*<sup>TM</sup>. Likely because the students attended an institution that valued this skill, during the focus group, students did not report they learned anything new about themselves. However, in both sessions, many comments reflected that the Attribute Cards<sup>TM</sup>

contained familiar references to characteristics. In S2, when evaluating the Attribute Cards™ as indicators of their own identity, Table Two was very animated and discussed their choices with joy and humor, asking each other, “Is this like me?” (Observer One and Three). On the same day, Table One was quiet, very serious, and contemplative (Observers Two and Three). During the game debriefing, several students verbalized why and when the game could be used as a way of understanding oneself better. Player 1 remarked, “The game is to figure myself out and other people.” Player 5 responded to this, adding,

I feel like the main point of the game, in my opinion, is to help people find out about yourself...I feel more like I want to do this as more of an independent thing. But for [others]...I feel like they could learn to figure out yourself along with other people.  
(Player 5)

This student revealed the delicate balance between using the game to reveal personal truths using an avatar, publicly or privately. This was an astute observation for a young person. Often such self-reflections are seen when practitioners use the Attribute Cards™ with specific objectives in a one-on-one setting. The game experience for this learner made it possible for them to understand this nuance, indicating that the game’s intention for increased self-awareness translates to larger groups.

#### ***Key Finding 4***

The discussion sessions revealed that students were able to reframe “negatively weighted” Attribute Cards™. Observations of students “arguing” about what was a “good” or “bad” trait were noted by each of the observers and the facilitator, yet the interpretation by each—student, observer, facilitator—revealed their understanding of the game's purpose. While the facilitator and Observer Two noted this as disconcerting for students, Observers One and

Three were excited to see the exchange of ideas that revealed their implicit biases and self-views. In the adult focus group, the observers discussed the benefit of a facilitator in this circumstance to help students manage the emotional weight of the conflicting ideas. The facilitator can then bring the controversy to the discussion session to broaden the conversation about the impact of certain descriptions used to describe twice-exceptional students. Several students were descriptive as they discussed the asset vs. deficit balance within a single Attribute Card™ text.

So, I feel like I question a lot of things. Like most everything! So, it's negative because I know I can really, really annoy people. I'm just going to be honest here. But it's also positive because whenever I feel like I'm going to get this wrong, I can just question it and I don't feel, like, sorry or anything, you know. *It's like the bad thing about it is that it annoys other people yet it helps me to be able to know if what I'm doing is actually right* (emphasis added). (Player 9, *The Hand You Were Dealt™*, S2)

During [an interest-based group project], I really discovered that I like working in a group more than I thought. It was fun. But at the same time, I also really like working on my own. Working alone, it just feels so much nicer when you complete it. Lots of times I'm opinionated. I mean, in a group I can get a bit power-hungry, and I don't think other people like it. (Player 5, *The Hand You Were Dealt™*, S2)

The game's intention to help students reframe their thinking moves their self-awareness toward a more positive self-view. By discussing how specific characteristics could be assets or obstacles, these two students indicated the game helped them consider when attributes work best for them within different situations or environments.

### ***Key Finding 5***

Student comments during the focus group about the game process in S1 indicated that they were seeing the game as a role-playing game (RPG) instead of a Social-Emotional Learning (SEL) experience. This prompted additional thinking about instructional recommendations and clarity for the facilitator. When revising the instructions, the task was to balance describing a

clear enough purpose to be motivating and enjoyable while also allowing for spontaneous self-discovery.

Students were observed to be energized during both the game and discussion sessions for *The Hand You Were Dealt*<sup>TM</sup>, and they indicated through the survey at the end of S2, that they may have gotten more out of the discussion than the game itself, with over half indicating undecided or “agree” to the question, “I enjoyed the discussion within the game.” There was a difference between the facilitator using a list of questions and the questions evolving from the discussion organically. It was noted that timely discussion that did not interrupt but extended a student’s thinking during or after gameplay was most effective. The researchers noted that the facilitator instructions and questions needed to be reevaluated during future pilots.

### ***Key Finding 6***

The import of *The Hand You Were Dealt*<sup>TM</sup> is to begin the process of mentoring students toward a positive self-identity. This process begins when the child reveals their current self-view. After the discussion (*Time to Reflect*), facilitators bring the group back to the *Reflecting on The Hand YOU Were Dealt* sheet spaces, where students are instructed to choose cards that reveal a students’ self-view of their strengths and obstacles, their five key attributes, an attribute they wish they had, and one trait or interest that the student wished other people knew about them. The intention of the last two questions—*What is one attribute that you wish for*, and *I wish that people knew that I...*—are to illuminate the players’ self-identifying attributes. These insights into student-identified assets and obstacles may become opportunities for parents, counselors, educators, and other caregivers to cultivate or investigate further.

Of the nine students who participated in *The Hand You Were Dealt*<sup>TM</sup>, S2, seven filled out this portion of the *Reflecting on The Hand YOU Were Dealt*<sup>TM</sup> sheet. Players 6 and 7 did not

write down their ideas, yet expressed their views with each other, the group, and their facilitator teacher, by asking if certain traits fit. As others wrote down their thoughts, Player 7 mentioned that he wished he had better focus and that people knew he heard what others said even when he seemed distracted. Table 1 shared some of the comments that show both the playful nature of the students (I wish people knew that I...“Am Spiderman,” “was a Baddie”) and the profound revelations (I wish people knew that I... “I’m impacted by what people say,” “...need help”) that might trigger a follow-up discussion by a caring adult.

### **Key Findings for *The Game of School: A Learning Journey*<sup>TM</sup>**

#### ***Key Finding 1***

The key finding was that the board game succeeded in its objective to be able to engage the students, as the students were enthusiastic about the game, and these are some comments made, “Um, I love it. I think it's a great game” and other comments from the survey were, “I love the game,” and “Well, that was fun.” The players enjoyed the design of the board, expressed by this comment, “I like the plain colors and the bridges like chutes and ladders.” Another player commented, “The game was great and I think that you might be able to publish it to the public, but as a shorter version.” One player commented, “ I can't wait to see what you make next.” *The Game of School: A Learning Journey*<sup>TM</sup> moved at a swift pace, and there was a winner after 45 minutes of playing the game. The game met its objective in terms of time and how it was played. The players insisted that they would not finish playing the game until there was a winner, as it was imminent that Player 1 was about to win, Player 4 commented about his desire to finish the game because “she is right there” and “I want to see what's the last part.” The players wanted a sense of satisfaction from the game finishing and knowing what the last part of the board was about (spaces 131-160). Some players enjoyed the group activity element that was designed,

expressed by this feedback comment, “I liked how there were group activities to do and I also liked how there were bridges to cross that let you get ahead and also it helps with counting”[sic]. *The Game of School: A Learning Journey*<sup>TM</sup> was designed on chance and random elements (dice, spinner) and one player expressed that they would play the game again, “because there were a lot of options in the game, but also because it is a chance game so you don't need to have skill to win the game.”

### ***Key Finding 2***

Logistics for the playing requires the game materials to be pre-set in the space where it is to be played and a time allocation of 45 to 60 minutes without interruptions to play the game in its entirety. This includes the props being set before the game is played. During the pilot there were interruptions that affected the flow of the game. One player (Player 4) did not come back after the break was scheduled in between the game and then returned to finish the game. All the other players waited ten minutes for the player to return to continue playing the game. This interrupted the gameplay for the other players and extended the game's play time. This prompted a player to comment, “I think the game was a little too long, but otherwise, I love the game,” and “the game was great, and I think that you might be able to publish it to the public, but as a shorter version.”

### ***Key Finding 3***

The players noticed that there was a shift from the journey through the school year (spaces 1 to 130 in bright colors) to more self-reflective question sections (spaces 131 to 160 in pastel colors) on the game board. At the beginning of the gameplay, Player 4 commented, “These are dreamy colors. Does the game change?” Later he commented, “I want to see what's the last part.” When Player 1 arrived at space 132, Player 2 remarked, “You're in the dreamy area now. It

has dreamy colors all right.” This prompted a thought by Observer Two that this can be addressed in the instructions part of the game (Facilitator Rules) to explain how the board is divided into different parts of the traditional school year (North American) and discussing this with the players before they begin the game so that their questions are answered about the design of the game board and why the colors change. This demonstrated sharp observation skills and curiosity traits from the players straight away.

#### ***Key Finding 4***

Specialized needs could be predicted for many of the students as observed by their reactions and comments to the game. A well-versed practitioner who understands twice-exceptional and neurodiverse students will observe indicators of further inquiry. This key finding indicates that using this tool (gameboard) might potentially reveal students who need services. Player 2 and Player 3 exhibited typical tendencies of twice-exceptional children. Player 2 made sense of the gameboard by interpreting the space numbers as ages which started a conversation about age as a game concept:

Player 2: ‘But I’m like, I’m 26...he’s still at number 10.’

Player 1: ‘So maybe you’re 18.’

Player 4: ‘And you’re still behind here so that’s it...’

Player 1: ‘I’m 41 years old so it says eight.’

Player 3: ‘Oh no, I was already 18 years old.’

Player 2: ‘We’re popping until it grows. Older, older, and suddenly you walk by the age.

Like the biggest growth spurt of all time!’

Then Player 2 went on to reveal, “I’ve never had a growth spurt in my life,” commenting on his physical appearance. Another player said, “I’m only 18 years old.” Interpreting the spaces

as ages helped them to play the game playfully. Observer One and Observer Three noted that multiple times the group used the additive nature of the numbered spaces to use their math skills; even when a couple of the players' counting skills were not so strong, they were still trying without losing their patience. The players' different personalities were accentuated in the gameplay, and there were cues into their learning needs. Player 1 was cooperative and liked to take the lead and check on everyone's cards and what they said. Player 2 was very self-aware of his needs and voiced those thoughts repeatedly, indicating what it meant to be twice-exceptional. Player 3 did not speak much or give much eye contact. Player 4 was very inquisitive, asked probing questions, and insisted on not being helped by Player 1 in moving his counter on the board.

### ***Key Finding 5***

*The Game of School: A Learning Journey*<sup>TM</sup> provided some windows of opportunity for facilitator-led discussions to happen during the game. There were a few instances where the players wanted more conversation and disagreed with the task cards indicating the number of spaces to advance the players. For example, Player 4 commented when reading his card, "It says, 'made a collage of Mona Lisa out of bottle tops and brought it into school to show your class. Go forward one space.' That should be like, three spaces instead of one space...Come on! And even bottlecaps." Player 4 continually asked questions and showed his advanced reasoning with math, having an energetic discussion about Pi vs. Tau with Observer One. This demonstrated his advanced reasoning ability, and it showed up again as he played by asking many questions about the game.

Player 1 commented that she was not good with numbers; however, this was contradictory to her correctly adding up all the numbers. A facilitator here could have asked,

“What makes you think that you are not good at math?” Maybe she was critical of herself, leading her to be harder on herself than need be. When Player 1 answered a question on the card about what qualities she wanted in her teacher, she responded by naming the teacher she wanted for the next grade and why she wanted that teacher. Then the rest of the players expressed their desire about which teachers they also wanted for the next academic year and why. This was an opportunity to discuss their anxiety in terms of teachers.

### ***Key Finding 6***

The level of participation of the facilitator/Observer Two influenced the game. By role modeling how to play the game and use the numbered space cards so they stayed in order, the players began to take charge (Player 1 and Player 4) in sorting the cards out and reading them aloud as well as placing the game playing props in their proper place after use. It was observed that the players understood the rules of the game more organically after the facilitator (Observer Two) demonstrated the play without too much explanation but with more modeling. Interesting to note that Player 1 took lead in sorting and reading the cards, with Player 4 taking charge of the cards on his own. The observers noted that Player 3 never read her cards out loud.

## **CHAPTER V: Recommendations and Development of Revisions**

Recommendations are provided for both the games together, for each of the games separately, recommendations for the future observations about the games as part of a Social Emotional Learning (SEL) Curriculum for twice-exceptional students, followed by a final conclusion.

### **Recommendations for Both the Games:**

The significance of the role of the facilitator cannot be overstated. When the facilitator is one of the players they can authentically model how they would react, and when landing on

something personal or receiving a card they don't want, they can comment and facilitate a broader discussion. Debriefing of the games needs to be moderated using excellent communication skills (listening, questioning, observations).

Beyond the rules and components of the games (instructions), guides were developed for facilitators. It is recommended that those who are leading the game read the guides and/or participate in a training session on the purpose and facilitation of the games.

It is recommended that the games should be played in small groups unless the facilitator feels ready to play the games with the whole class knowing the personalities and readiness of the group and how to manage the entire class. This includes very clear directions and follow-up questions with the students.

Every time the games are played, the facilitator should remind students of all the rules and processes of the gameplay along with any new details that might be added (elements, reflection, discussion).

### **Recommendations For *The Hand You Were Dealt Game: Exploring Diverse Minds*<sup>TM</sup>**

It is recommended that *The Hand You Were Dealt*<sup>TM</sup> be played with small groups at first to help both the students and the facilitator learn the game flow and to establish an atmosphere of emotional and social trust. This game is dissimilar to others previously encountered; therefore, when working with the entire class, it should be played without the reflection sheet initially in order to get the flow of the game.

Educators will recognize that the reflection sheets are easy to use, but the written aspect of these tools might be a challenge for students with dysgraphia or dyslexia. Emphasis has been added as reminders to support these students.

During the pilot, having the two tables of students reorganize themselves into a circle seemed to lessen the side conversations that ensued when the two groups stayed at their separate tables. The target audience of 4th through 7th-grade students needs to be reassessed in additional school settings. Two facilitators might make the mentoring process more meaningful by having one person lead the discussion while the other observes and ensures each voice is heard.

Using the DMC™ dice, or characters that the class makes up, familiarizes players with the game process so they may reflect on different Attribute Cards™. These insights may deepen or shift after several game sessions. The Attribute Cards™ decks contain over 80 cards and may be split among two groups of five to six players. In subsequent games, the decks might be switched so players see different cards. When choosing freely, the students in the pilot noticed this split.

### **Recommendations for *The Game of School: A Learning Journey*™**

The instructions should be carefully explained to the players about what the group activities will entail and that these will be joint group activities. One group activity is playing *Charades*; the rules of playing charades needs to be explained. Another group activity is how to make a human-machine together where each of the players will become a different part of the same machine. This should be explained beforehand so that time is not lost during the activity, thus interrupting the gameplay. Another activity is building structures from props. This more complex activity should advise that each player will take on a team role during the making of the building structure with blu-tack/putty/play-doh (something sticky) and then something to build with that is reusable, for example, toothpicks/sticks/pens. When playing *The Game of School: A Learning Journey*™ with a single small group or in a larger setting with multiple clusters, each group should have access to a facilitator who can answer questions and help players reflect on

their poignant comments. Often these comments can lead to insightful short discussions. *The Game of School: A Learning Journey*<sup>TM</sup> needs about ten minutes to set the activities up and about ten minutes to debrief, so the total time allocation should be one hour. The goal of the game is to leave time for group activities and discussions and not just get it over and done; otherwise, the game's objective may not be achieved. The value of playing the game is taking the time after the play for questions and discussions led by the facilitator. This is when the facilitator can help the players understand themselves.

### **Curriculum Recommendation: Opportunities for Expressions of Self-Reflections**

The researchers can envision integrating the two games described in this project into an SEL curriculum that supports twice-exceptional students over time. Each game would be played multiple times, focusing on different elements within each over the course of the school year. Additional tools or games may be added to help students focus on their learning assets, academic strengths, and interests while learning how to mitigate the obstacles they encounter, including learning and communication skills and scaffolded independence. The culminating goal would be for students to be able to express their needs by creating a physical, positively-focused representation of their complex layers of identity. Examples might be a personalized school path similar to *The Game of School: A Learning Journey*, a collage of their attributes, a mobile of strengths balancing their paradoxical attributes, a poem or music, or even a window garden that represents themselves, etc. These tangible representations become a reflective moment in their development that helps them view their growth and may help them express themselves to others.

The intent of developing these games for school, classroom, and small group use is to offer educators an additional tool that helps reveal this underserved population of cognitively diverse learners and provides a resource to equip fellow educators with new insights into their

experiences. Equally important is providing social and emotional support for the students who may not yet understand themselves because of their complex, paradoxical, social, emotional, and cognitive profiles.

### **CHAPTER VI: Conclusion and Implementation Possibilities**

The objective of creating these games is to support twice-exceptional students and the educators who influence their academic, social, and enrichment choices. These decisions might enhance or take away from the innate possibilities of these children. Using these games to explore the positive self-identity of twice-exceptional learners empowers both the students and the adults who care for them to better recognize the child's strengths, interests, and obstacles on their journey to adulthood. For parents, practitioners, and educators, these games offer recognition that one is not alone in encountering the various attributes or school experiences illustrated. These games facilitate discussions about children and their journeys through school and beyond.

The special nature of the community partner school and their dedication to supporting the students socially, emotionally, and academically, created an ideal setting to pilot games specifically for twice-exceptional students. Students had a range of academic, social, and emotional skills and differing levels of self-awareness. It is hoped that the games will be similarly effective with new community partners when students are guided by informed facilitators who understand the intersecting identities of twice-exceptional students.

These games offer a well-versed SEL practitioner in the field of giftedness, twice-exceptionality, and neurodiverse learners engaging tools that foster a positive self-identity as they broaden the child's self-awareness and the educational systems that provide services. Additionally, the games become *accessible resources* for families and caregivers to reveal

students with profound strengths and co-morbid obstacles who may need assistance from these practitioners.

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**Table 1***Project Plan*

<b>2022 Hansen &amp; Mahendra Capstone Project Plan:</b>					
<b>Using Games to Explore Positive Self-Identity for Twice-Exceptional Learners.</b>					
<b>Level (Phase)</b>	<b>Task Name</b>	<b>Duration</b>	<b>Start</b>	<b>Finish</b>	<b>Closed/Open</b>
1	<b>Capstone Project Kick-off</b>	331 days	<b>06/22/2021</b>	<b>05/18/2022</b>	Closed
1.1	Project Management	331 days	06/22/2021	05/18/2022	Closed
1.1.1	<a href="#">Budget for Capstone Project Link</a>	331 days	06/22/2021	05/18/2022	Closed
1.1.2	<b>Design</b>	252 days	<b>06/22/2021</b>	<b>02/28/2022</b>	
1.1.3	Literature Research	31 days	06/25/2021	7/25/2021	Closed
1.1.4	Capstone Proposal	70 days	08/23/2021	10/31/2021	Closed
1.1.5	Oral Comprehensive Exam	4 days	10/18/2021	10/21/2021	Closed
1.1.6	Capstone Defense	1 day	11/22/2021	11/22/2021	Closed
1.1.7	Capstone IRB Defense	1 day	12/14/2021	12/14/2021	Closed
1.1.8	Capstone Approval	1 day	01/06/2022	01/06/2022	Closed
1.2	Research Design Elements (for gifted learners with special needs on self-exploration theme)	76 days	12/15/2021	2/28/2022	Closed
1.2.1	Design Board/Cards Layout (size, space,)	31 days	12/01/2021	12/31/2021	Closed
1.2	Games Instructions	31 days	01/01/2022	01/31/2022	Closed
1.2.1	Games Components (counters, cards, dice, players)	31 days	01/01/2022	01/31/2022	Closed
1.2.2	Design Activities for Board Game & Card Game	59 days	01/01/2022	02/28/2022	Closed
2	<b>Build (Make)</b>	39 days	<b>02/08/2022</b>	<b>03/18/2022</b>	
2.1	Identify Graphic Designer	1 day	02/08/2022	02/08/2022	Closed
2.1.2	Graphic Design of game board/card game	30 days	02/10/2022	03/11/2022	Closed
2.1.3	Graphic Design for card game & game board	34 days	02/10/2022	03/15/2022	Closed
2.1.4	Trademark and Copyright work	1 day	02/28/2022	03/15/2022	Closed

2.1.5.	Print game board and card game Prototype for Pilot	7 days	03/12/2022	03/18/2022	Closed
2.2	Make appropriate changes to Online Survey, Observation Sheets, Focus Group Questions	6 days	03/13/2022	03/18/2021	Closed
3	<b>Pilot (Test)</b>	35 days	<b>02/18/2022</b>	<b>03/24/2022</b>	
3.1	Facilitate the games in the classroom with teachers before pilot session	1 day	02/18/2022	02/18/2022	Closed
3.1.1	Identify purposive selection of grade 5 & 6 students from the lab school	7 days	03/01/2022	03/07/2022	Closed
3.1.2	Send Consent forms to parents & students to participate in pilot	5 days	03/07/2022	03/11/2022	Closed
3.1.3	Attend Pilot Session as Observers/Facilitator	10 days	03/15/2022	03/24/2022	Closed
3.1.4	Hold feedback focus group with students and record feedback on observation sheets during gameplay and immediately after playing the game	10 days	03/15/2022	03/24/2022	Closed
3.2	Send out anonymous online survey to the students who participated in the pilot to fill survey	8 days	03/17/2022	03/24/2022	Closed
4	<b>Project Close</b>	55 days	<b>03/25/2022</b>	<b>05/18/2022</b>	
4.1	Collate feedback from pilot	6 days	03/25/2022	03/30/2022	Closed
4.1.1	Make changes to the games (board game & card game) prototype to incorporate feedback	19 days	03/31/2022	04/18/2022	Closed
4.1.2	Write the game manual instructions	15 days	04/03/2022	04/17/2022	Closed
	Write the game guide	96 days	02/10/2022	05/16/2021	Closed
4.1.3.	Write Capstone Final Report	37 days	04/04/2022	05/10/2022	Closed
4.1.4.	Send revised games prototypes for Printing	19 days	04/28/2022	05/16/2022	Closed
4.1.5.	Present to Capstone Project Committee	1 day	05/17/2022	05/17/2022	Closed

**Table 2***Project Budget for The Hand You Were Dealt Game: Exploring Diverse Minds™*

<b>Budget For <i>The Hand You Were Dealt</i>™ Capstone Project</b>			
<b>Game Component</b>	<b>Prototype for Pilot</b>	<b>Final Prototype</b>	<b>Total Cost</b>
Game Component design (characters, branding, style guide, revisions) Vendor: Graphic Designer (\$25.00/hr)	\$1,800.00	\$1,700.00	\$2,500.00
Business Card Stock	\$40.00	\$10.00	\$50.00
Material costs of Instructional Booklets and reflection sheet materials	\$21.00	\$20.00	\$41.00
Printing costs of Instructional Booklets and reflection sheet materials	\$75.00	\$50.00	\$125.00
Game Container	\$45.00	x	\$34.00
Final Attribute Cards & Box decor printing	x	\$35.00	
<b>Totals</b>			<b>\$2,750.00</b>

**Table 3***Project Budget for The Game Of School; A Learning Journey™*

<b>Budget for <i>The Game Of School</i>™ Capstone Project</b>			
<b>Game Components</b>	<b>Prototype for Pilot</b>	<b>Final Prototype</b>	<b>Total Cost</b>
Gameboard	\$55.00	\$75.00	\$130.00
Gameboard Lamination	\$20.00	\$20.00	\$40.00
Cards	\$60.00	\$60.00	\$120.00
Instructions	x	\$15.00	\$15.00
Spinner	\$10.00	\$16.00	\$26.00
Game Pieces (counters, dice, dice tray, card tray)	\$200.00	x	\$200.00
Gamebox	x	\$30.00	\$30.00
Sticker for Gamebox Lid	x	\$16.00	\$16.00
Graphic Designer (boardgame design)	\$625.00	x	\$625.00
<b>Total</b>			<b>\$1,202.00</b>

**Table 4***Student Responses on Self-Reflection Sheets for The Hand You Were Dealt™*

Student	“Is there one attribute you wish for?”	"I wish people knew that I..."
Player 3	Wicked Sense of humor and loyalty	...am able to take care of myself
Player 1	I don't have one	I'm impacted by what people say
Player 9	NOT BE SO SENCITIVE [sic]	...was a ◇Baddie◇◇[sic]
Player 5	A card for roleplaying (like if someone's good or bad at it)	...don't like socializing with new people or strangers
Player 8	Multi-inventor	...need help <sup>a</sup>
Player 2	good handwriting (It's soooo bad :( ) [sic]	...am Spiderman <sup>b</sup>
Player 4	enjoys humanities	sometimes I'm ready for more

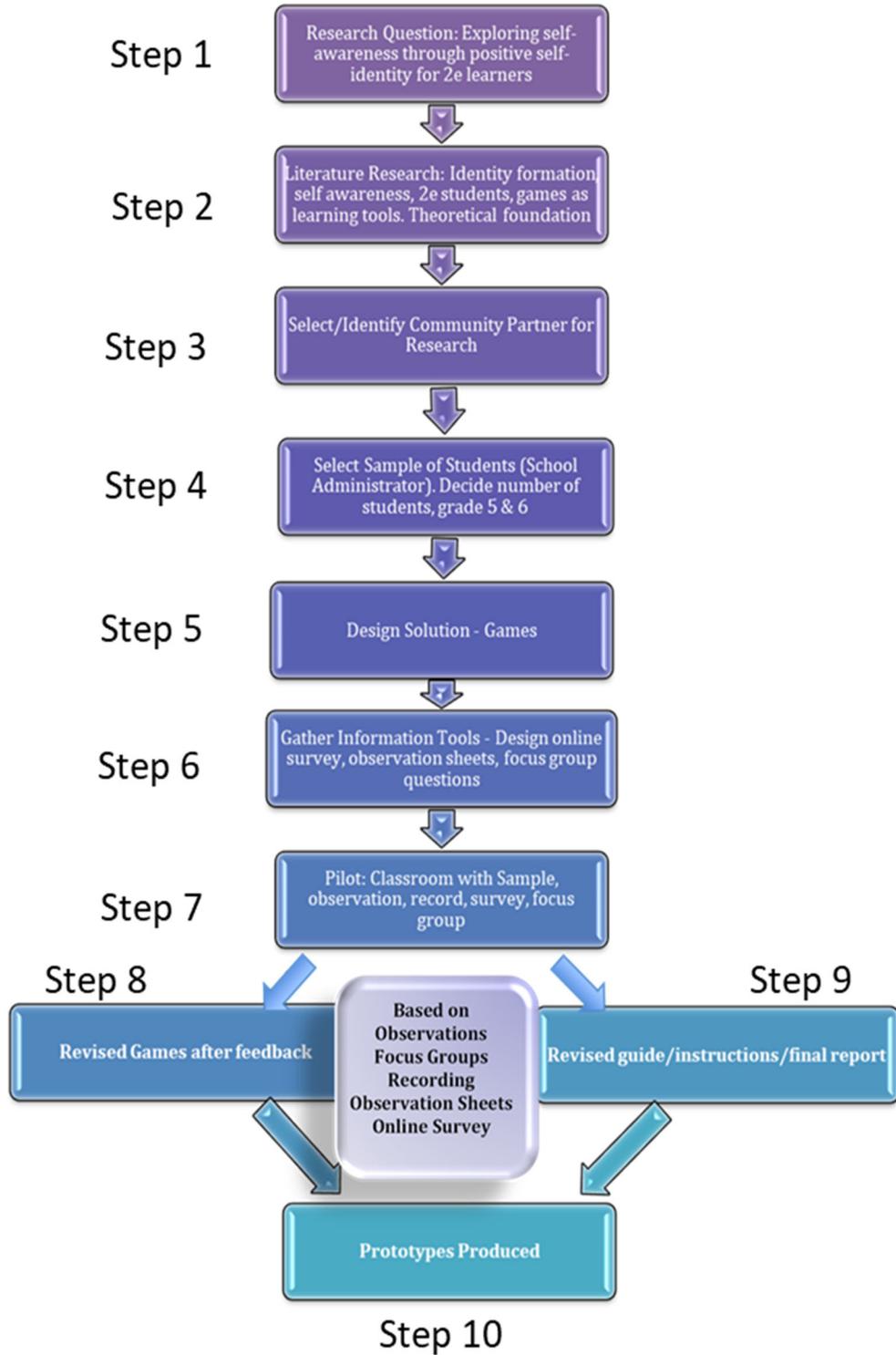
Note: Players 6 and 7 participated fully in the reflective discussion but did not return to their sheets to record their thoughts

<sup>a</sup> Player 8 left the game during the first round using a DMC avatar

<sup>B</sup> Player 2 self-identified with the attributes "Full of curiosity and wonder" and "Has TONS of ideas"

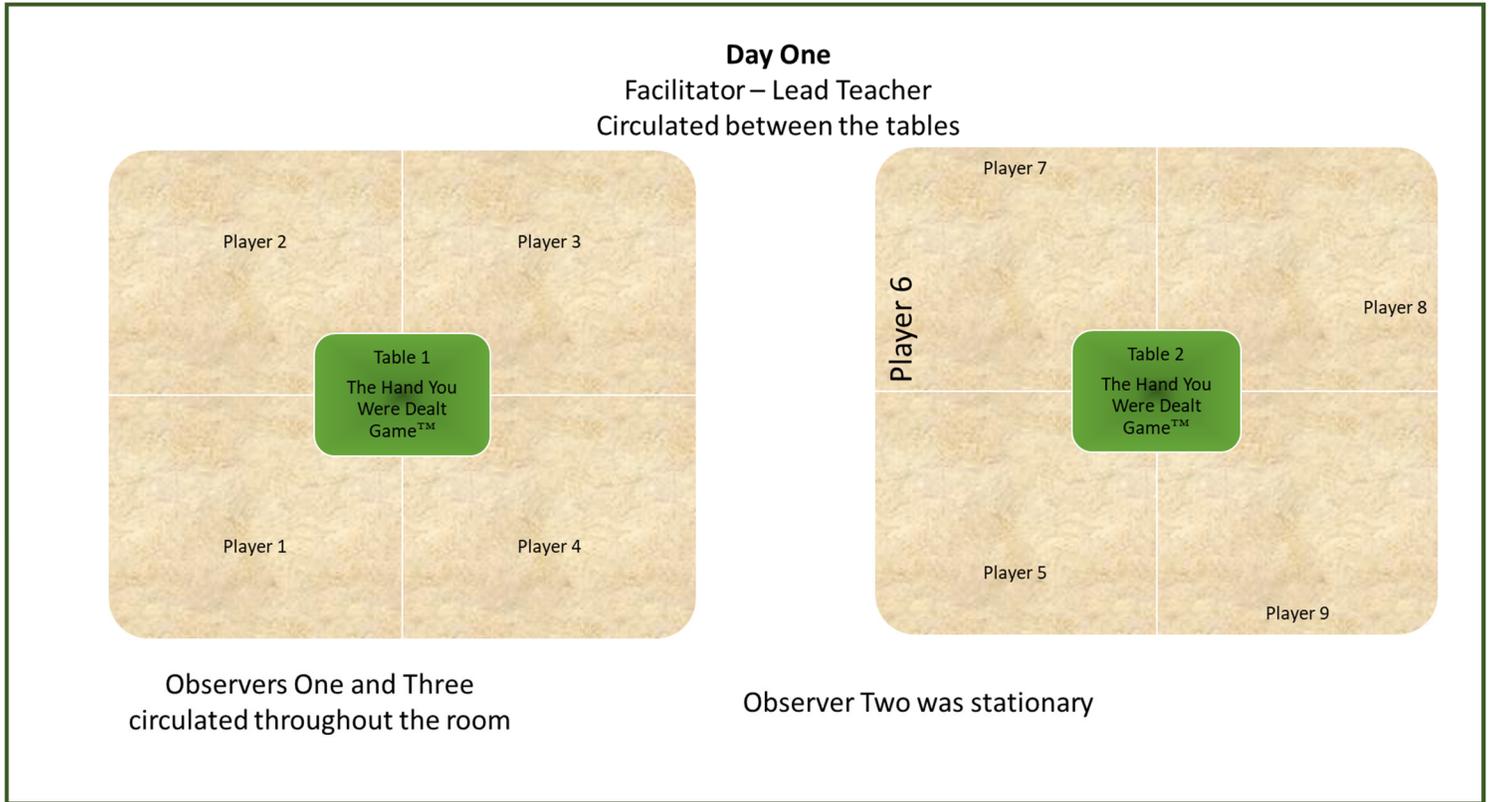
**Figure 1**

*Methodology Process Flow*



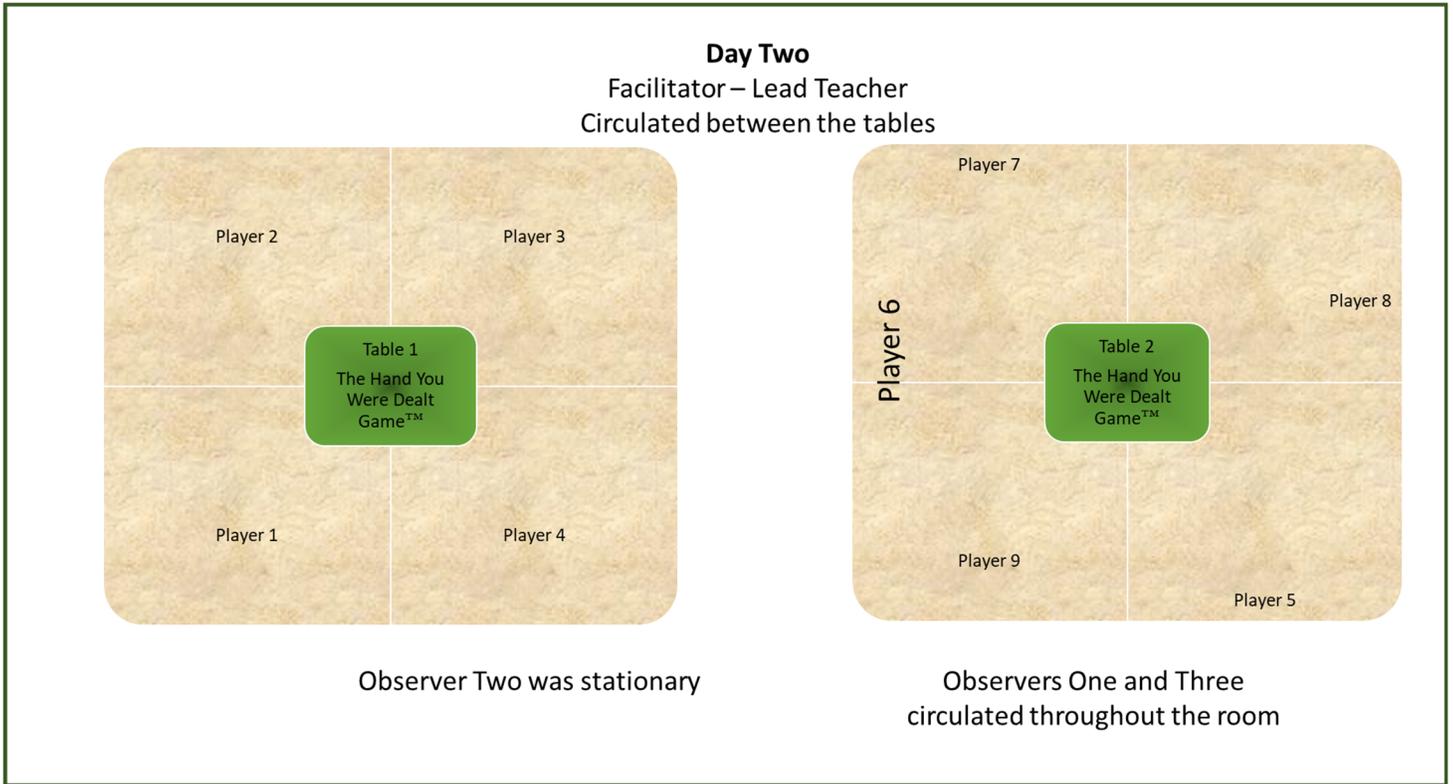
**Figure 2**

*Table arrangements for The Hand You Were Dealt™, Day One*



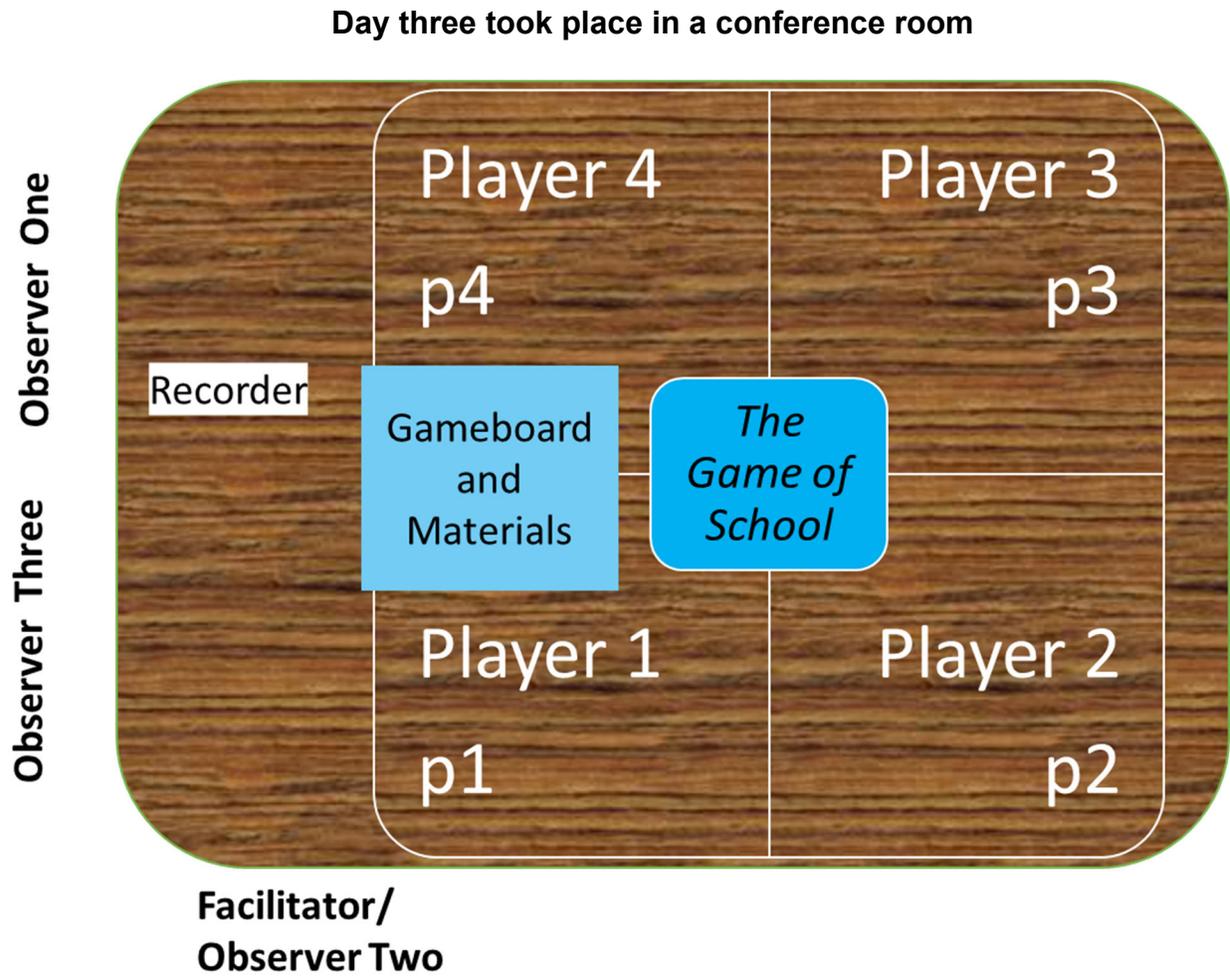
**Figure 3**

*Table arrangements for The Hand You Were Dealt™, Day Two*



**Figure 4**

*Table arrangements for The Game of School; A Learning Journey™, Day Three*



**APPENDIX A: Community Partner Approval**

Bridges Graduate School -- Protection of Human Subjects  
 Bridges Graduate School for Cognitive Neurodiversity in Education  
 Administrative Research Approval Form for Bridges Academy  
 Cynthia Z. Hansen & Rashmii Mahendra

Please complete the form below to seek approval to conduct research within the context of Bridges Academy classes.

Type of Research

- Action Research for class assignment
- Capstone Project for Masters Degree
- X Capstone Problem of Practice for Ed.D.
- Dissertation for Ed.D.

<b>Graduate Students:</b> Cynthia Z. Hansen Rashmii Mahendra	<b>Program: (MA, Ed.D., Certificate)</b> Ed.D
<b>Academic Advisor:</b> Dr. Susan Baum	<b>Research Plan Advisor:</b> Dr. Kristin Berman
<b>Topic/Research Question:</b>	<b>Summary: (Note in order to be approved, your research must not interfere with class instruction).</b>
Capstone Project Topic: The use of games to explore positive self-identity for twice-exceptional learners.	<p style="text-align: center;"><b>Capstone Project Summary</b></p> <p>This capstone project differs from a problem-of-practice dissertation by producing a deliverable product that addresses the issue and may be used in one or more settings. Both the problem-of-practice dissertation and the capstone project are scholarly projects that use existing research to identify a problem of practice in the literature and propose a workable solution.</p> <p>Twice-exceptional students are unique, out-of-the-box thinkers who must be afforded the tools to explore their learning differences, capabilities, diversities, and layers of cultural, intellectual, creative, and emotional selves. Our capstone project goal is to explore a positive self-identity through the playing of games designed specifically for this population. When identity development is supported early, these students have the promise of a solid foundation, enabling them to seek the environments that will help them thrive and learn coping strategies for the obstacles and hurdles they will inevitably face. This capstone project seeks to empower students by helping them to recognize/explore their positive self-identity characteristics. Research shows that simulation games such as the ones we are designing, allow learners to take more risks and experience the game initially</p>

through another's eyes, creating a safe emotional climate as they encounter different scenarios.

#### **Implementation Plan**

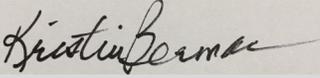
We request permission to enter the Phoenix Division of Bridges Academy to pilot the games being developed to enhance self-awareness and agency for twice-exceptional learners.

**During this time of the pandemic, we are mindful of the uncertainty that has come with COVID-19. The researchers will follow the school protocols and recommendations for health and safety.**

After IRB approval and consent forms are in hand, focus groups will be organized with the input of the Director of Phoenix and the participating teachers. Each focus group will have 3-4 students. All who participate in the games and/or the focus groups will do so after a letter of informed consent is signed by both parents and students.

#### ***Proposed Process:***

1. Prior to bringing the game to the school, the doctoral committee will consult on the game elements to assess the developmental appropriateness of the cards, instructions, debrief protocol, observation checklist, and any reflection documents.
2. Participating teachers will be trained as facilitators of the game. Teachers will be asked to provide feedback for revision prior to implementation and to reflect on the process after the game play.
3. Meet in the Phoenix division with each focus group for 60-90 minutes.
  - a. Students will
    - i. play the game (in development) during advisory,
    - ii. participate in the facilitated post-game discussion,
    - iii. take a break to allow processing time (as advised by the facilitator)
    - iv. return to discuss the overall experience and offer game revisions
      1. debriefing will be conducted with the researchers;
      2. Questions will be developed to gain students' opinions about aesthetics and game piece design; enjoyment or frustration levels during gameplay; suggestions for additions or removal of game elements, and if the gameplay might have changed their awareness or validated their personal experience about being 2e.
    - v. An option for students to respond to a survey instead of participating in the discussion based on the criteria above may be developed if appropriate.
    - vi. **Students can opt out at any time without judgments or repercussions.**
4. Researchers will meet in the Phoenix Division for a total of 60-90 minutes for each game. The regular school schedule will be used. The game will be

	<p>played during a project period (45 minutes) and the focus groups will take place after a 15-minute break during the 40-minute advisory period. Focus groups may play the same game up to 3 times during the game development process through May 2022, to refine the gameplay, debrief process, or game elements as needed.</p> <ol style="list-style-type: none"> <li>5. There will be two observers during the game play (either in person or via Zoom), the researchers Cindy Hansen and Rashmi Mahendra who have completed PHRP training. They will reflect on the students’ behaviors and thinking during the gameplay and debriefing session using an observation checklist.</li> <li>6. Observational notes will be coded (alpha-numeric) to maintain the confidentiality of the student.</li> <li>7. To protect the students, the gameplay process may meet in a neutral location. A discussion of privacy as stated on the informed consent form will be repeated.</li> <li>8. Observational notes will be coded (alpha-numeric) to maintain the confidentiality of the student.</li> <li>9. The sessions will be recorded using audio, video, and/or Zoom Meetings, using a phone video camera, or lap-top and will use the transcription service, Otter.AI on a phone recorder.</li> <li>10. Computer files referring to individual students will be kept on an encrypted, password-protected thumb drive and written observation notes will then be transported and placed in a locked fire safe in Ventura in the care of researcher Hansen when not in use for a period of three years. Audio-visual records will be destroyed after transcriptions are complete.</li> <li>11. If participating in the gameplay or review process brings up social or emotional issues for a child and their well-being becomes a concern, the game developers, (or teacher, student, parent) will contact the school site supervisor and take appropriate action to support the child’s needs.</li> </ol>
 <hr/> Division Director	<p> <input checked="" type="checkbox"/> Approved  <input type="checkbox"/> Not approved  <input type="checkbox"/> Needs more discussion                 </p>
<p><b>Carl Sabatino-</b></p> <hr/> Head of School	<p> <input checked="" type="checkbox"/> Approved  <input type="checkbox"/> Not approved  <input type="checkbox"/> Needs more discussion                 </p>

**APPENDIX B: Informed Consent (Teacher/Staff)****Bridges Graduate School -- Protection of Human Subjects**

Title of Study: **Using Games to Explore Positive Self-Identity for Twice-Exceptional Learners**

Investigator(s): **Cynthia Z. Hansen, M.Ed., ET/P and Rashmii Mahendra, MBA**

Investigator(s) Affiliation and Role with Bridges Graduate School: **Bridges Graduate School Doctoral Candidates**

Study Valid Until **June 30, 2022**

I understand that:

1. My participation is entirely voluntary.
2. I may withdraw my consent and discontinue participation in this study (or any portion thereof) at any time without bearing any negative consequences.
3. You have given me an explanation of the procedures to be followed in the project, and answered any inquiries that I may have.
4. All of the information from this study will be strictly confidential. No names of individuals or the school will be associated with the data in any way. Providing my address to receive a report of this research upon its completion will also not compromise the confidentiality of the data. I understand that the data will be stored in locked offices and will be accessible only to members of the research group. **The game-play and critique sessions will be recorded using video and/or audio devices for transcription and observational purposes.**
5. The results of this study will be made part of a final research report for a graduate degree and may be used in papers submitted for publication or presented at professional conferences, but under no circumstances will my name or other identifying characteristics be included.

I have reviewed the procedures to be followed and hereby give my consent to participate in this research. I also agree not to discuss the purposes and procedures of this study with anyone in order that the integrity of this research is not compromised.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Print Name \_\_\_\_\_

If there are any questions, please contact the research team at:

[Cindy.Hansen@Bridges.edu](mailto:Cindy.Hansen@Bridges.edu) or 1-805-407-1742

[Rashmii.Mahendra@Bridges.edu](mailto:Rashmii.Mahendra@Bridges.edu) or 1-747-977-0635

[Kristin.Berman@bridges.edu](mailto:Kristin.Berman@bridges.edu). (1-818- 506-1091)

Please send me a report on the group results of this research project upon its completion:

YES  NO If yes, please list the address to which the report should be sent:

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A copy of this consent is available for your records.

### APPENDIX C: Family Cover Letter

**Dear Families,**

**Rashmii Mahendra and Cindy Hansen** are doctoral candidates in the Ed.D. program at Bridges Graduate School of Cognitive Diversity in Education. Students in the Phoenix Program at Bridges Academy are being invited to participate in a game development process that will assist the researchers in developing two table-top games that will explore student self-awareness as a foundation for educational self-advocacy.

Our Project is titled, **Using Games to Explore Positive Self-Identity for Twice-Exceptional Learners**. The games are being designed to be enjoyable while also supporting students' social and emotional learning. This letter is for you to make an informed decision on whether to consent to have your child participate. Even if you allow your child to participate and they accept working with the researchers, they/you may withdraw at any time. Please contact the researchers or Dr. Kristin Berman if you have any questions that are not covered below.

Our project goal is to explore how games may be used to foster a positive self-identity in twice-exceptional students. When identity development is supported early, these students have the promise of a solid foundation, enabling them to seek the environments that will help them thrive and learn coping strategies for the obstacles and hurdles they will inevitably face. Research shows that games create a safe emotional climate to explore different school and life experiences.

The students who participate in this project will become both players of the games and game evaluators. Teachers in the school will be leading the games so students feel at ease as they play. Their play will be observed by the researchers to see if the intended response is happening. After a short break, students will return to evaluate their experience, critiquing everything from word choice to design elements. The entire process should take no more than 90 minutes including a 15-minute break. Researchers may ask students to evaluate the game after updates have been made. Over the course of the Spring 2022 semester, students will be asked to spend approximately (no more than?) five hours playing or evaluating the games outside of their core-curricular time.

**The game-play and critique sessions will be recorded using video and/or audio devices for transcription and observational purposes.**

#### **CONFIDENTIALITY:**

The records of this process will be kept private, and your child's confidentiality will be protected. In any type of report the researcher(s) might publish, no identifying information of the child or school will be included. Observational notes, audio recordings, video recordings, and

phone-recorded sessions, and transcripts from Otter.AI, will be kept in a locked and secured location.

**VOLUNTARY NATURE OF THE STUDY:** *Students can opt-out at any time without judgments or repercussions.* Participation in this process is voluntary and requires informed consent from parents and informed assent from the participating student. If you decide to participate, you are free to withdraw from the game-play or post-game play interview process at any time without penalty.

**Disclaimer:** During this time of the pandemic, we are mindful of the uncertainty that has come with COVID-19. The researchers will follow the school protocols and recommendations for health and safety.

**CONTACTS AND QUESTIONS:**

If there are any questions, please contact the research team: [Cindy.Hansen@Bridges.edu](mailto:Cindy.Hansen@Bridges.edu) and [Rashmii.Mahendra@Bridges.edu](mailto:Rashmii.Mahendra@Bridges.edu) and [Kristin.Berman@bridges.edu](mailto:Kristin.Berman@bridges.edu)

**Thank you for considering participation in this project,**

Cindy Hansen & Rashmii Mahendra

**APPENDIX D: Informed Consent (Parent / Guardian)****Bridges Graduate School -- Protection of Human Subjects**

Title of Study: **Using Games to Explore Positive Self-Identity for Twice-Exceptional Learners**

Investigator(s): **Cynthia Z. Hansen, M.Ed., ET/P and Rashmii Mahendra, MBA**

Investigator(s) Affiliation and Role with Bridges Graduate School: **Bridges Graduate School Doctoral Candidates**

Study Valid Until: **June 30, 2022**

I understand that:

1. My child's participation is entirely voluntary
2. I may withdraw my consent for my child and discontinue participation in this study (or any portion thereof) at any time without bearing any negative consequences.
3. You have given me an explanation of the procedures to be followed in the project, and answered any inquiries that I may have.
4. Institutional Review Board (IRB) approval will precede all data collection, and the researchers will be in possession of a valid Human Subjects Certificate from the IRB as will all capstone committee members.
5. The names of all participants in this study and any implicit or explicit reference to their organizations will be referenced only through the use of pseudonyms in all reports, as well as names and potential identifiers being redacted from written archival artifacts included in the study in order to protect the confidentiality of each individual and organization.
6. The data, including audio and video recordings, will be stored on a password-protected electronic device and any data, stored on an electronic device or on paper will be locked in a filing cabinet by the researcher. I understand that the data will be stored in locked offices and will be accessible only to members of the research group.
7. The results of this study will be made part of a final research report for a graduate degree and may be used in papers submitted for publication or presented at professional conferences, but under no circumstances will my child's name or other identifying characteristics be included. Reports will be prepared and disseminated via conference

presentations and publications. De-identified data may also be retained to be combined with other similar data sets under the direction of the principal investigator and/or researchers connected with this study. All of the information from this study will be strictly confidential. No names of individuals or the school will be associated with the data in any way.

8. Providing my address to receive a report of this research upon its completion will also not compromise the confidentiality of the data.

I have reviewed the procedures to be followed and hereby give my consent for my child to participate in this research. I also agree not to discuss the purposes and procedures of this study with anyone in order that the integrity of this research is not compromised.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Print Name \_\_\_\_\_

Student's name (please print): \_\_\_\_\_

Student's Teacher: \_\_\_\_\_

If there are any questions, please contact the research team at:

[Cindy.Hansen@Bridges.edu](mailto:Cindy.Hansen@Bridges.edu) or 1-805-407-1742

[Rashmi.Mahendra@Bridges.edu](mailto:Rashmi.Mahendra@Bridges.edu) or 1-747-977-0635

[Kristin.Berman@bridges.edu](mailto:Kristin.Berman@bridges.edu) 1-818- 506-1091

Please send me a report on the group results of this research project upon its completion:

YES  NO If yes, please list the address to which the report should be sent:

\_\_\_\_\_

A copy of this consent is available for your records.

**APPENDIX E: Informed Assent (Student)**

**Bridges Graduate School -- Protection of Human Subjects**

**Title of Study: Using Games to Explore Positive Self-Identity for Twice-Exceptional Learners**

**Student Information Form to Participate in a Research Study**

Dear Student,

We are excited to have your input in developing some games and would really appreciate your participation in the process.

If you agree to be part of this process, we will ask you some questions about your experience in playing the games.

You can ask questions about this process at any time.

If you sign this paper, it means that you have read this and that you want to be in this process of playing the games. If you don't want to be in this process, please don't sign this paper. Being in the process is up to you, and no one will be upset if you don't sign this paper or if you change your mind later.

Please print and sign your name below if you agree to be part of the study.

\_\_\_\_\_

Print name

Date: \_\_\_\_\_

\_\_\_\_\_

Student signature

Thank you!

Cindy & Rashmii

If you have any questions, please contact the research team

**Cynthia Z. Hansen, M.Ed., ET/P and Rashmii Mahendra, MBA**

[Cindy.Hansen@Bridges.edu](mailto:Cindy.Hansen@Bridges.edu) & [Rashmii.Mahendra@Bridges.edu](mailto:Rashmii.Mahendra@Bridges.edu)

**APPENDIX F: Observation Worksheets: Teachers**

Date: \_\_\_\_\_ Game being played: \_\_\_\_\_ Observer: \_\_\_\_\_ School: \_\_\_\_\_ Grade Level(s) \_\_\_\_\_

\*Effectiveness Scale: 1 = Doesn't understand the game's intention; 2 = Unsure of intention; awkward, low energy; 3 = Follows game rules, unable to answer player questions; mild enthusiasm; 4 Seems to understand intent, & has a positive attitude, but struggles to attend to all elements; 5 = In flow with the game's intent, enthusiasm energizes the players

Teacher/ Facilitator	Explains Instructions (Clearly (students get it quickly)	Able to answer Questions (allays student confusions quickly)	Able to improvise & use comments to enable awareness	Able to listen & guide to discover ideas (vs overly explicit )	Use of instructions as provided (are they clear)	Observations of additive or distractive behaviors, inclusions or confusions
	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	

APPENDIX G: Observation Worksheets: Students

Date: \_\_\_\_\_ Game name: \_\_\_\_\_ Observer: \_\_\_\_\_ Grade levels: \_\_\_\_\_

**Enthusiastic:** Is the student actively engaged and interested? **Agitation:** Does the student seem confused, frustrated, or agitated? **Rules:** Does the student easily play the game as directed by the facilitator? **Strategy:** Does the student establish a strategy?

Date:	Enthusiasm	Agitation	Rules	Strategizes	Notable Student Comments or Observations
Student	<b>Circle Affective Behavior - Scale: 1 = very little to no signs of this behavior; 2 = Some signs of this behavior; 3 = Intermittent signs of this behavior; 4 many signs of this behavior; 5 = consistent signs of this behavior throughout the gameplay</b>				
	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	

## APPENDIX H: The Hand You Were Dealt™ Focus Group Survey

### The Hand You Were Dealt Game

Thank you for playing today! We are happy that you will be helping us by offering your honest feedback about the game process. We are not collecting emails, so your answers will be anonymous.

\* Required

1. What grade are you in? \*

Mark only one oval.

- 3rd grade
- 4th grade
- 5th grade
- 6th grade

2. Which game day (Tuesday or Thursday) did you enjoy more? Why? \*

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3. Would you play the game again. Why or Why not? \*

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4. Which design elements did you enjoy most? \*

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Please answer the following and use this scale as a guide:

- 5=Strongly Agree
- 4=Agree
- 3=Undecided
- 2=Disagree
- 1=Strongly Disagree

5. I enjoyed playing the game. \*

Mark only one oval.

1      2      3      4      5

---

Strongly disagree      Strongly agree

6. I became aware of new ways to look at different attributes and

Mark only one oval.

1      2      3      4      5

---

Strongly disagree      Strongly agree

7. I liked playing with the DMC more than playing as myself.

Mark only one oval.

1      2      3      4      5

---

Strongly disagree      Strongly agree

8. I enjoyed the discussion within the game. \*

Mark only one oval.

1      2      3      4      5

---

Strongly disagree      Strongly agree

9. The reflection sheets helped me think about the game. \*

Mark only one oval.

1      2      3      4      5

---

Strongly disagree      Strongly agree

10. I learned something about myself as we played the game. \*

Mark only one oval.

1      2      3      4      5

---

Strongly disagree      Strongly agree

11. Other comments? We want to hear from you.

---



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5/3/22, 3:48 PM

The Game of School - A Learning Journey

7. **The pace of the game was just right. \***

*Mark only one oval.*

1      2      3      4      5

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8. **I felt engaged (involved) playing the game. \***

*Mark only one oval.*

1      2      3      4      5

---

Strongly disagree                  Strongly agree

---

9. **I enjoyed the interaction within the learning game. \***

*Mark only one oval.*

1      2      3      4      5

---

Strongly disagree                  Strongly agree

---

10. **The cards enhanced the way the game was played. \***

*Mark only one oval.*

1      2      3      4      5

---

Strongly disagree                  Strongly agree

---

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The Game of School - A Learning Journey

11. **I learned something about myself as we played the game. \***

*Mark only one oval.*

1      2      3      4      5

---

Strongly disagree                  Strongly agree

---

12. **Other comments? We want to hear from you.**

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**APPENDIX J: The Hand You Were Dealt™ Focus Group Questions: Students**

<b>Playing for a DMC™ Character</b> <b>Remember to discuss before you allow students to choose their attributes!</b> <b>The discussion helps students internalize the game experience.</b>
<ul style="list-style-type: none"> <li>➤ What did you imagine the DMC™ was doing?</li> <li>➤ How did it feel to have to Negotiate a trade? <ul style="list-style-type: none"> <li>○ Did your group ever get a little stuck?</li> <li>○ How about when someone stole a trait you were trying to keep?</li> </ul> </li> <li>➤ Which cards were you trying to keep?</li> </ul>
<ul style="list-style-type: none"> <li>➤ Did anyone disagree about the desirability of the different cards? <ul style="list-style-type: none"> <li>○ What were the reasons?</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>➤ How might you flip a trait from “negative” to positive”?</li> <li>➤ Does the environment or situation matter? (playground, favorite/worst class, P.E., doing a favorite activity, hanging with friends, being home, etc.) <ul style="list-style-type: none"> <li>○ If the setting changed, would you want different traits?</li> </ul> </li> <li>➤ If you had to choose one undesirable trait, what would it be?</li> </ul>
<ul style="list-style-type: none"> <li>➤ Do you think your choices reflect your personal biases? <ul style="list-style-type: none"> <li>○ Family biases?</li> <li>○ Personal experiences?</li> </ul> </li> <li>➤ How might a person from a different culture/perspective make other choices?</li> <li>➤ Does seeing the attributes as actions or in print help describe some traits (to others)?</li> </ul>
<ul style="list-style-type: none"> <li>➤ How might your DMC™ embrace “their” traits &amp; build on them?</li> <li>➤ How might the DMC™ live with the paradox (es) w/in the hand (are there paradoxes?)</li> </ul>
<ul style="list-style-type: none"> <li>➤ Were there cards that seemed to describe someone you know (friends, family, self)?</li> <li>➤ Does the game, and reflection discussion, help you think about a peer or family member differently?</li> </ul>
<ul style="list-style-type: none"> <li>➤ Do you think the game and our discussion might broaden your awareness about or compassion toward those who might think differently? Why/Why not?</li> </ul>
<p><b>“Now, you will get a chance to CHOOSE the traits and attributes that best fit your DMC. You may use the same traits as others and look at any of the cards.”</b></p>

<b>Playing as Yourself</b> <b>Remember to discuss before you allow students to choose their attributes!</b> <b>The discussion helps students internalize the game experience.</b>
<ul style="list-style-type: none"> <li>➤ Does seeing the attributes in print help you to describe traits (to others)?</li> </ul>
<ul style="list-style-type: none"> <li>➤ If the beginning or ending traits were really yours, how might you embrace them?</li> </ul>
<ul style="list-style-type: none"> <li>➤ Many discussed traits positively or negatively.</li> <li>➤ Do you think your choices reflect your <b>personal</b> biases? <ul style="list-style-type: none"> <li>○ <b>Family</b> biases?</li> <li>○ Or <b>personal</b> experiences?</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>➤ How might you reframe a specific card that you thought was negative?</li> </ul>
<ul style="list-style-type: none"> <li>➤ Are there traits that you have that you wish you might manage differently?</li> <li>➤ How do people (you) live with the paradox (es) w/in the hand (are there paradoxes?)</li> </ul>
<ul style="list-style-type: none"> <li>➤ Does reflecting on the game and attributes make you more aware of your choices in your actual situation?</li> <li>➤ Are there traits that you have that you wish you might manage differently?</li> </ul>
<p><b>“Now, you will get a chance to CHOOSE the traits and attributes that best fit you. You may use the same traits as others and look at any of the cards.”</b></p>

**APPENDIX K: The Hand You Were Dealt™ Focus Group Questions: Teacher**

Element or Detail	Is it true?	Adjustments Needed? (suggestions/ comments)
<b>Instructions:</b>		
<b>Instructions are clear and easy to follow:</b> Clear enough to give even if no training?		
Instructions are in a good order		
Introduction supports the game purpose		
Facilitator Introduction ideas are helpful		
Creating the best hand possible in YOUR view		
<b>GAME DESIGN Elements</b>		
<b>Cards seem appropriate for game purpose</b>		
Character Dice DMC design are inclusive & appropriate		
Spinner has good situation choices		
Title reflects purpose of the game		
<b>Color Scheme and overall design feel right</b>		
<b>THEME ELEMENTS:</b>		
GAME is AMBIGUOUS: No single right or wrong move		
<b>Stealing</b> —giving in to envy		
<b>Discard</b> —balance even when choices are difficult		
<b>Trading</b> - give & take, compromise		

Element or Detail	Is it true?	Adjustments Needed? (suggestions/ comments)
Game process promotes self-awareness		
Game process promotes understanding of others		
Different settings shift view of a trait		
Change can feel powerful, futile, or neutral		
Adapting to change (life interrupts our plans)		
Trade-offs when things don't go as planned (title)		
Influences on player choices= life experience, practice & opportunities (exposure)		
We all have different combos of strengths, challenges, passions, aversions(dislikes)		
Learning to see positive in traits, and modulating them in certain circumstances (situational awareness)		

How was your experience leading the game?

Do students seem to be struggling or thriving as they play? Please explain using your observations.

What were some ideas that you noted came up during the debrief of the game (vs the Reflective Discussion)

What improvements would you suggest?

**APPENDIX L: The Game of School: A Learning Journey™ Focus Group Questions**

1. How was your experience in playing the game?
2. Did the cards help in playing the game?
3. Was it easy/hard to use the cards?
4. Was the timing of the game ok? too long or too short?
5. Was it fun and engaging?
6. Any comments on the board design?
7. Anything else that you would like to discuss?
8. Was this a novel experience?

**SUPPLEMENTAL MATERIALS**

**[Instructional Guide for The Hand You Were Dealt Game: Exploring Diverse Minds™](#)**