

CREATIVITY FOR MENTAL HEALTH: A PRINCIPAL'S ROLE

**FOSTERING CREATIVITY FOR POSITIVE MENTAL HEALTH IN MIDDLE AND
HIGH SCHOOL STUDENTS: A PRINCIPAL'S ROLE**

by

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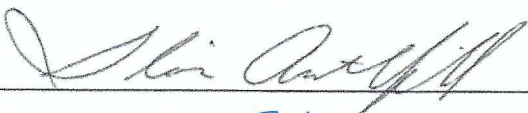
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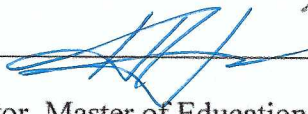
Fostering Creativity for Positive Mental Health in Middle and High School

Students: A Principal's Role

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Abstract

In the context of evolving employment landscapes driven by technological advancements, this capstone explores the intersection of creativity, mental health, and well-being among middle and high school students. The study examines strategies that principals can adopt to cultivate a creative culture in schools and aims to enhance positive mental health and well-being outcomes. The literature review highlights the need for students to develop creative skills and attitudes to navigate an uncertain future successfully. The research questions focus on identifying challenges and opportunities in fostering creativity, exploring effective strategies for principals, and examining the influences of creative learning environments on student mental health. The significance of the study lies in its potential to positively impact student engagement, educational experiences, and overall well-being. Fostering creativity can result in students developing problem-solving skills, critical thinking, and innovative approaches to challenges, enhancing their adaptability in a rapidly changing world. The study contributes to a better understanding of the interplay among leadership practices, creativity, and student well-being in educational settings. The scope of the study encompasses research on the positive effects of creativity on student mental health, as well as strategies for principals to promote creativity within a context that considers various stakeholders. The findings are expected to provide valuable insights for educators, principals, and policymakers aiming to enhance student creativity, well-being, and preparation for the future.

Keywords: Creativity, mental health, well-being, middle and high school students, principals, creative culture, ambiguity intolerance, psychological contract, future-ready development, prosocial, positive creativity, self-efficacy

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Fostering Creativity for Positive Mental Health in Middle and High School

Students: A Principal's Role

Chapter 1: Introduction to the Study

Introduction

Current students will encounter new and unknown job opportunities in the future. The advancement of technologies, including automated robotics and artificial intelligence, is changing the employment landscape (Newton et al., 2022). Youth will have to adapt not only to survive what is to come but also to be productive contributors to the global society. Additionally, students are suffering from an increase in what is identified as social anxiety (Conroy et al., 2020; Dirtzyte, et al., 2021; Racine et al., 2021; Weisbrot & Ryst, 2020). Not only does anxiety impair a hopeful outlook for the future, but it also negatively affects learning. With this improved understanding of student challenges, teachers are facing an increase in requests for accommodation during assessments (Hinds & Sanchez, 2022). While some student accommodations utilize supportive technology, which is categorized as approaching a fix for anxiety (Phillips et al., 2022), other accommodations promote student avoidance (Conroy et al., 2020), such as writing in seclusion. Although meeting student needs is necessary so that assessments provide a true representation of learning outcomes, there is a reasonable expectation that students need to build their resilience to mildly stressful situations such as timed exams and performing in large groups (Baytemir, 2023; Coleman & Lind, 2020; Gannon et al., 2021).

Both knowledge and creativity have been identified as important tools for students to work in an era of advanced technology (Leggett, 2017). Furthermore, “modern workplaces

demand critical thinking and creativity from employees and these qualities are associated with higher productivity for employers and better work-life balance” (Lunevich, 2021, p. 1446). To navigate an uncertain future and improve their mental health, students need to develop creative skills. This capstone project identifies strategies for principals to encourage and support teachers for fostering creativity and positive mental health in middle and high school students.

Background

In an educational setting, research has shown that “behaving creatively doesn’t always come naturally to children and that the context is of influence on the development of creative thinking” (Schut et al., 2020, p. 952). Creativity becomes more restricted as we age (Duval et al., 2022; McCrae et al., 1987; Robinson, 2001). Some students appear to have unbridled enthusiasm when invited to create, while those same students, as adult professionals, may not have that same enthusiasm. This is not to say there is a difference between children and adults, in fact, they are more alike than not. Rather, this conjecture raises the idea that, with age, there seems to be less motivation for creativity. So, what in our collective society breeds convergent thinking? Or rather, what are we missing that fosters divergence of thought? Although there can be opposition from linear thinkers to generating “artsy” or “imaginative” ideas, with the right context, even they can become entranced in an abstract process. What I have come to believe is that creativity can be fostered, nurtured, and learned.

There are contingencies to fostering creativity. Creativity is dependent on a willingness to try, knowing failure is highly possible, planning an idea though being flexible enough to adjust the original conception, and relying on loose details that will change and shift during the process. For example, consider a group of students working together on a school project entitled “Unity

Through Creativity,” which purpose is to craft an interactive art piece for a school event. They explore undefined solutions to this challenge with novel approaches in methodology and material usage, knowing that failures could result in unique discoveries. Initially envisioning a structured design, the students opt for asymmetry to mirror the unpredictability of creativity. They incorporate interactive components with flexible designs, adjusting as obstacles surface, thus representing a willingness to adapt. Across several weeks, their ever-evolving creation transforms, illustrating ease when faced with ambiguity, the embodiment of creative culture. Fostering creativity is only possible if the participants are open to change.

In my experience, students who have not been exposed to creative processes struggle when faced with unstructured environments or open-ended projects. I have worked on adapting and developing tools for nurturing creative responses to teacher-imposed tasks. While using tools and adapting resources, I supplied many types of scaffolds for students to help them along the way. Students were often successful; however, their work lacked inspiration. What I was missing was the concept of supporting behaviours in addition to procedures (Ivcevic et al., 2022). My focus on supplying structure resulted in a restricted process, limiting students’ pursuit of novel and undefined solutions to challenges. Widening my lens, as a teacher among colleagues, I attempted to create an environment in the school community to foster creativity with activities open for student interpretation and exploration. The challenge was that some teachers held onto their routines. When invited to try something new, they appeared unwilling to change. My assumption was that teachers gravitated toward teacher-directed instruction, not because of evidence-based research, but rather due to complex teaching situations. Examples of such complexities include mitigating behavioral problems, managing differentiation of instruction,

documenting their efforts to reach apathetic students, and justifying their judgments in a time when professionals were being challenged. I was uncertain of how to help teachers explore new possibilities.

Along with this came an increase in support for students experiencing test anxiety. In my practices, I have observed the growing need for supporting students not only during assessments but in other areas. Quiet spaces with reduced occupancy or emotional encouragement prior to engaging in learning are two examples of accommodations. Because of disruptions to learning caused by the COVID-19 pandemic, the incidence of youth depression and general anxiety disorder increased (Dirtzyte, et al., 2021; Racine et al., 2021; Weisbrot & Ryst, 2020).

Awareness and understanding of student mental health are the first steps to mitigating mental health issues (Kong et al., 2023). As a teacher, I encountered students who needed continuous positive support to be able to learn, by dispelling their fears of failure and normalizing that not all tasks are easy. In the role of vice principal, I worked with teachers in attempting to address student mental health needs with classroom management, accommodations for assessments, and guest speakers or presentations.

As an artist and educator, I feel the need to consider the crossover between creativity and mental health and wellness for youth. Personally, I see the benefits of creative practices on my own mental health. Time to reflect on my process and rework problematic areas in my art has given me the ability to see opportunities for improvement presented in errors, since creativity can be a process of taking on uncertain situations with hope. In a rapidly advancing society, educators can provide students with the opportunity to develop a positive mindset regarding change through creative exploration.

Statement of the Problem

A lack of creativity amongst middle and high school students has correlations with poor mental health and well-being. As seen in a study by Mohamed (2014), “reducing creativity may negatively impact the mental health and well-being of the healthy individual” (p. 149). In an idyllic middle or high school setting, students would be engaged in creative activities, building skills to tackle the uncertainty they will face in their futures. According to Thornhill-Miller et al. (2023), “with the appearance of computers and digital technologies, new means of interacting between people, and a growing competitiveness on the international level, organizations are now requiring new skills from their employees, leaving educational systems struggling to provide appropriate ongoing training” (p. 1). Additionally, Legault et al. (2006) stated that “one of the most prominent problems plaguing today’s teenage youth is a lack of motivation toward academic activities” (p. 567). There is also a high rate of learning anxiety among adolescents, which in recent years, has become the most difficult problem for student growth (Kong et al., 2023).

Preparing students for their future is a major goal of public education. Bensalah & Mățã (2022) indicated that “the educational framework places creativity as a critical competency or skill to support students in thinking creatively, coping with the challenges of the twenty-first century, and preparing learners to be able to function as efficient citizens of modern society” (p. 241). However, developing and implementing new curriculum can be complicated because “governments throughout the world emphasise [sic] the importance of creativity, but often what they do in education suppresses it” (Robinson, 2001, p. 41).

With the advancement of technologies and innovative practices in education, driven by the Fourth Industrial Revolution (Al Lily et al., 2018; Elayyan, 2021; Goulart et al., 2022; Mogas, et al., 2022), learning environments continuously evolve to meet the needs of our future citizens. At the heart of the need for change is the uncertainty of what is to come. Although an unclear future is a given, there is an unprecedented rapidity to the changes of the 21st century, and students need to be prepared to adapt to unpredictable technological developments and the effects of ubiquitous information (Carvalho et al., 2022; Tredinnick, 2022). Within the realms of uncertainty lies the potential to develop generalized anxiety disorder (Boswell et al., 2013), which has been shown to limit learning potential (Khdour, et al., 2016). Additionally, the rise in reported rates of youth depression and anxiety is projected to exceed one in four students (Dirzyte et al., 2021; Racine et al., 2021). So, educators are not only tasked with preparing students for an uncertain future, requiring undefined skills but are also faced with this uncertainty exacerbating feelings of anxiety, which negatively affect the learning process.

It is important to address the problems associated with supporting creativity in a learning environment for middle and high school students. Teachers are challenged to meet the growing mental health needs of students while increasing their intellectual engagement and fostering creativity. Principals can respond by developing a school culture which supports pedagogical practices that foster creativity, ultimately benefiting the development of positive mental health and well-being.

Purpose of the Study

The purpose of this capstone project is to examine the literature on challenges and opportunities in fostering creativity for students in middle and high school with a focus on the

positive effects that creativity can have on student mental health and well-being. Additionally, the research explores strategies for principals in developing practices that are important to promoting creativity in a school setting. The purpose of this study is to establish that principals can embody an attitude and model behaviours that are essential to creativity, supporting teachers professionally and personally, so that they, in turn, can foster student creativity and positive mental health and well-being.

Research Questions

The research questions for this capstone project are:

1. What are the specific challenges and opportunities that principals face in fostering creativity in a middle to high school setting?
2. What strategies and practices can principals adopt to cultivate a creative culture in middle and high schools?
3. What are the influences on the mental health and well-being of middle and high school students when they experience a learning environment focused on fostering creativity?

Significance of the Study

The significance of the study lies in its potential to enhance student engagement, educational experiences, and overall mental health and well-being. Creativity is associated with pursuing solutions that have value and it is a catalyst for developing a mindset that can change behaviour resulting in better well-being (Acar et al., 2018; Bungay & Vella-Burrows, 2013; Ismayilova & Bolander Laksov, 2023). Creativity not only supports a positive school environment but also establishes behaviour that, if undertaken, would benefit others, thereby contributing to a healthy and prosocial community (Barnes, 2016; Collie, 2022; Whinnery et al.,

2018). It can be surmised that healthy interactions will increase the probability of prosocial behaviour and cooperation as a whole.

Understanding the impact that leadership strategies have on fostering creativity will support student engagement and improve their educational pursuits through innovative problem-solving and sustainable behaviours for the real world (Arnab et al., 2019; Ismayilova & Bolander Laksov, 2023). Research has connected the interplay between curiosity, play, sociability, and creativity (Gray, 2009, as cited by Mehta et al., 2020). Mehta et al. (2020) indicated that adults “serve an intentional role, in providing structures and opportunities for children to be playful, allowing them to imagine new possibilities of being and knowing” (p. 685). One aspect of the structure for learning is the environment that the learning exists in, which can be subdivided into social or pedagogical and physical (Soomro et al., 2023; Swanzy-Impraim et al., 2023). Teachers and principals “need to facilitate a creative conducive learning environment for the pedagogical enhancement of creativity in learners at all levels” (Swanzy-Impraim et al., 2023, p. 2). When this environment is established, students will be encouraged to think critically, explore alternative solutions, and develop innovative approaches to problem-solving (Arnab et al., 2019; Ismayilova & Bolander Laksov, 2023). Ultimately, when a suitable environment is developed to foster creativity “learners will be able to discover different solutions in a creative way, which can open up new opportunities for them to engage with meaningful learning experiences that can translate into more sustainable practices in the real world” (Arnab et al., 2019, p.185).

Scope of Study

This capstone project examines research highlighting the positive effects that creativity in a middle and high school setting has on student mental health and well-being. In addition, it

explores relevant strategies principals can utilize in establishing an environment that fosters creativity in students while considering the context of stakeholders, including teachers and parents.

Summary

Research indicates that increasing social anxiety among students presents challenges for educators to support their diverse needs (Dirtzyte, et al., 2021; Hinds & Sanchez, 2022; Larios & Zetlin, 2023; Racine et al., 2021; Weisbrot & Ryst, 2020). While teachers adapt and change practices, students can be faced with more hardship (Boswell et al., 2013), and creativity, which can prepare students to face the unknown challenges of the future, becomes an important focus (Bensalah & Mățã, 2022). The purpose of the capstone is to explore the relationship between leadership strategies which support creativity and mental health and well-being in middle and high school students.

Outline of the Remainder of the Paper

Chapter 1 introduced the problem of limited creativity and adverse mental health and well-being in middle and high school students. This was refined by research questions to explore principal strategies for fostering creativity in middle to high schools and the accompanying effect a creative culture would have on student mental health and well-being. The chapter ended with the study's significance to improve student engagement, educational experiences, and mental well-being by fostering creativity, particularly relevant in preparing students for an evolving job landscape shaped by technology. Chapter 2 will define the terminology used in the capstone project, drawing attention to the concept of ambiguity intolerance. This will be followed by a review of literature organized into themes and derived from the research questions, which serve

as a guide. Chapter 3 will conclude the capstone project, launched with a summary of the findings, a discussion of implications from the literature, and recommendations.

Chapter 2: Literature Review

Introduction

When faced with the need for change, inflexibility of those involved in the transformation can create additional challenges (Fullan, 2020). Human beings have biological responses to change, which often manifest in resistance (Spohn & Grady, 2020), such as confirmation bias, lack of empathy, self-preservation, tribalism, and a reliance on tradition. For example, during the global pandemic, education leaders had to adapt their management styles to suit the needs of a message of unity across a divided political spectrum (Lochmiller, 2021). It became important for principals to mitigate emotional responses to the changes during the COVID-19 pandemic (Wilson, 2021).

Changes in the educational experience during the COVID-19 pandemic revealed that these emotional responses lead to thought: a critical process that is relevant to creativity (Ivcevic et al., 2022). In order to foster what can be considered positive creativity (Ivcevic et al., 2022), positive emotions should be a focus. In a study, Chin et al. (2023) showed that perceived social support led to decreases in psychiatric symptoms. Students who have supportive learning communities were more likely to have a positive emotional response to their environment and reported a measurable decline in mental health challenges. A positive emotional response leads to positive thoughts regarding the learning environment, which, as mentioned earlier, is crucial for creative processes (Ivcevic et al., 2022). A principal can use strategies to ensure a positive learning environment for students and teachers.

Definition of Terms

Ambiguity Intolerance – Refers to an individual’s discomfort and unease when faced with uncertain or ambiguous situations (Frenkel-Brunswick, 1949).

Creative Culture – A perspective to cultivate an environment that nurtures creativity while focusing on changing knowledge, attitudes, and behavior. The resulting “changes in knowledge and attitudes are obtained from the learning process in the classroom, while behavioral changes are derived from the daily practices of students and all stakeholders at school and outside the school” (Mulyaningsih et al., 2022, p. 9333).

Creativity – Can be expressed in many forms and is often difficult to individually quantify. For the purposes of the study, creativity will be defined as an open process of pursuing valuable, novel, and undefined solutions to challenges (Ismayilova & Bolander Laksov, 2023).

Future-Ready Development – “Can be defined as an integration of knowledge, skills, attitudes, and values, which young people are required to have in the 21st century” (Tirri et al., 2017, p. 1).

Instructional Leadership – Establishes impactful teaching and learning in a school by helping define and communicate goals, monitoring and providing feedback on teaching and learning, and emphasizing the importance of continuous professional development (Munna, 2022).

Professional Learning – Refers to the ongoing learning that takes place on behalf of educators to improve the way they teach, and can be done in both formal and informal ways (Bullock & Sator, 2015).

Psychological Contract – Refers to the unwritten, implied expectations and obligations that exist between individuals and the organizations or institutions of which they are a part (Roehling, 1997).

Principal – The individual responsible and accountable for meeting the professional practice standard as described in the competencies of the Leadership Quality Standard (Alberta Education, 2023a).

Prosocial – “Can be defined as actions intended to benefit and help others” (Moore et al., 2023, p. 1).

Positive Creativity – “Educational endeavours that are guided by a set of agreed-upon commitments aimed at making a positive contribution to the learning and lives of others” (Beghetto & Anderson, 2022, p.1).

Stakeholders – Invested parties in the achievement of students and the education system. This could be students, parents and/or guardians, community members, support staff, teachers, principals, administrators, school authorities, senior administration, policymakers, etc.

Self-efficacy – “Teachers’ realization of their own capabilities and skills to bring about changes in learners’ achievement in positive ways” (Khanshan & Yousefi, 2020).

Well-Being – Encompasses a state of comprehensive physical, mental, and social wellness, characterized by happiness, contentment, minimal distress, sound physical and mental health, positive outlook, and a high quality of life (Acar et al., 2021).

Historical Background

For students to be able to achieve higher states in Bloom’s revised taxonomy (Anderson et al., 2001), the right conditions must be met in Maslow’s (1943) hierarchy of needs. Effectively satisfying social and emotional needs is a prerequisite to achieving higher orders of learning (Fisher & Crawford, 2020; Mutch & Peung, 2021). While it has been identified as a need, mental health support within the public education system in North America is strained (Raviv et al.,

2022; Weisbort & Ryst, 2020), so that teachers must find professional learning resources and engagement in student mental health support programs (Shelemy et al., 2019). As instructional leaders, principals in Alberta schools have the responsibility to support teachers in creating a learning environment (Alberta Education, 2023a; Wallin et al., 2019) conducive to the school's improvement plan, as well as the school district's educational plan (Education Act, 2023; The Alberta Teacher's Association, 2023). Although access to professional learning has increased through such tools as video conferencing (Gladović et al., 2020), there are still challenges in getting exposure to a range of ideas represented in differing cultures. As released by Statistics Canada (2022), rural settings, as defined by areas populated by less than 10,000, contained the fewest amounts of individuals within a "racialized group" (Statistics Canada, 2022). Students who have fewer first-hand experiences with diversity in culture are limited in developing empathetic skills (Schultze-Krumbholz et al., 2020), which are important in fostering creativity (Keenan-Lechel & Henriksen, 2019; Oboeuf et al., 2023; Romero, 2020).

In a changing society, creative thinking not only develops new ideas but is an overlapping aspect of intelligence represented in many disciplines (Corazza et al., 2021; Parveen & Ramsen, 2012; Salomon-Gimmon et al., 2021). Creative thinking and critical thinking are correlative (Soomro et al., 2023) and have been connected under the overarching term "21st Century Skills" (Thornhill-Miller et al., 2023), making them important skills for youth to develop (Bensalah & Măță, 2022). Furthermore, the necessity for both critical thinking and creativity entails a level of intellectual involvement, which has been recognized as a crucial component of the educational framework aimed at maximizing every student's potential. (Education Act, 2023). Mirsadegh et al. (2022) emphasized that academic engagement is a vital

indicator in evaluating educational systems, making this an important focus for school principals. Choi et al. (2021) illustrated a correlation between boredom, anxiety, and depression, further emphasizing the need for critical thinking and creativity. Interrelated to this is the complicating factor of ambiguity for the future—a factor leading to procrastination and potential apathy (Balkis & Duru, 2019). Apathy is a salient challenge in the classroom, especially as it is almost entirely out of the educator's sphere of control. As indicated in a study by Rivas et al. (2023), there is a correlation between apathetic behaviour and a decrease in teacher efficacy. Teacher efficacy is highly correlated to student success, even cited as the number-one influence on student achievement (Hattie, 2009). Therefore, teachers who can engage students will gain more confidence in their ability to complete their job and increase their effect on learning, whereas students who are apathetic to learning can form emotional barriers to the entire process.

Self-efficacy is not only important for teachers; it is important for students as well. Having clear goals can increase student learning (Roth et al., 2022), which is further reinforced by feelings of self-efficacy (Sanyoto & Saloom, 2020). In schools, planning for the future is seen as a lifelong development (Robinson & Diale, 2017). It is not uncommon for students to be partaking in projects focused on entrepreneurialism in middle school, as there is a validity to developing a mindset related to this growing sector (Hocenski et al., 2019; Jones & English, 2004; Kauko, 2023; Matlay, 2005; Rae, 2004). Youth have been educated with the concept of knowing the importance of their tasks. Although this can create powerful connections to one's purpose, it also creates a need to validate an activity prior to engaging with the work. When there is no belief in the purpose of work, then the power of tapping into student efficacy is irrelevant as a result of cost-benefit analysis in mental effort (Székely & Michael, 2021). "I don't want to"

trumps “I can’t” consistently. What is important for educators and principals to understand is that the relationship between mental health, learning, and creativity is reciprocal and cyclical (Livingston, 2010; Hollenberg, 2017; Ivcevic et al., 2022).

Understanding the Dynamics of Relationship and Perception

A reciprocal and cyclical process within a school environment is dependent upon forming and maintaining relationships. Within the context of developing a creative culture, preconceived notions held by stakeholders (González-Pérez & Ramírez-Montoya, 2022) and individual ability to face unknown situations become important. The following section will incorporate two key concepts: psychological contract and ambiguity intolerance. In a school context, the psychological contract pertains to the beliefs held by principals, teachers, and students, which, in turn, determines the level of cooperation that exists between these parties. Developing a healthy well-being is dependent on cooperative and positive relationships (Abdul Kadir & Rusyda, 2022). Ambiguity intolerance refers to an individual’s incapability to handle situations, information, or contexts that lack clarity or have uncertain outcomes (Frenkel-Brunswick, 1949). While the ability to deal with situations characterized by ambiguity and uncertainty is a marker of positive mental health, it is also a contributing factor to an individual’s ability to be creative (Mirsadegh et al., 2022; Zenasni et al., 2008). The combination of psychological contract and ambiguity intolerance concepts offers a thorough comprehension of the dynamics governing relationships and perceptions in educational environments.

Psychological Contract

The psychological contract refers to the implied responsibilities that underlie the relationships between individuals and the organization or institution to which they belong

(Roehling, 1997). It encompasses the mutual beliefs, perceptions, and promises that form the basis of the relationship between individuals and their environment (Rousseau, 1989). Within the context of a school setting the psychological contract is the relationship among middle and high school students (as representatives of the individuals undergoing an educational process), teachers (as representatives of the organization of teaching curriculum), and principals (as representatives of the institution of the school as a learning environment). According to Fillah et al. (2021), “a principal is a teacher who has the duty to lead a school organization, where a school is a place of interaction between teachers and students as instructors and recipients of lessons” (p. 247). This establishes a connection between all parties in which the relationship between the principal and teachers affects the relationship between teachers and students.

When principals support teachers, teachers can better support students. Teachers are able to perform best in stressful classroom situations when they have positive self-efficacy (Wettstein et al., 2021). Principals have the opportunity to support teacher self-efficacy by providing deliberate instruction for practices and opportunities to observe and reflect on the successful practices of peers (Khanshan & Yousef, 2020).

Maintaining teachers’ job satisfaction and ensuring that they work effectively is related with the capacity of responding to their expectations and desires. Therefore, it is important to pay attention to the concept of psychological contract, which includes mutual obligations between teacher and manager, and the leadership behaviours that empower the teacher at school. (Koçak & Burgaz, 2017)

The psychological contract held by the student “refers to individual or group subjective understandings of the reciprocal exchanges between students, their teachers and their learning

institution” (Fenech, 2021). Both psychological contracts of the teachers and students overlap, making the relationships between principals, teachers, and students reciprocal.

When principals endeavour to establish a creative culture in school, the psychological contract among principals, teachers, and students plays a crucial role in fostering creativity, building skills to face unknown situations, and cultivating positive mental health and well-being. According to Haglund & Glaés-Coutts (2023), “the teachers’ work has a direct connection to student success while the role that the principal plays is more indirect in shaping the culture and setting expectations for the school” (p. 11).

Ambiguity Intolerance

In 1949, the work of Frenkel-Brunswik produced the concept of ambiguity tolerance-intolerance, giving a vernacular for quantifying reactions to situations that are unknown. Academic success is correlated with a student’s ambiguity tolerance (Mirsadegh et al., 2022), making this measurement relevant in an academic context.

Ambiguity intolerance refers to an individual’s discomfort and unease when faced with uncertain or ambiguous situations (Frenkel-Brunswik, 1949). It reflects the individual’s ability to tolerate and cope with ambiguity and the extent to which they seek clarity and structure in their environment. Ambiguity intolerance influences how individuals perceive and respond to ambiguous situations, impacting their problem-solving abilities, decision-making processes, and overall well-being in the educational environment (Draguns & Multari, 1961). Understanding students’ levels of ambiguity intolerance can aid principals in cultivating a supportive and structured atmosphere that facilitates creativity and positive mental health.

A study by Zenasni et al. (2008) revealed a positive correlation between tolerance of ambiguity and creativity, while Puccio et al. (2011) has gone so far as to say that ambiguity tolerance is vital in creativity. On the other hand, Hoffmann et al. (2022) determined the development of emotional intelligence channels uncertainty into creative endeavours. Whether resilience is a product of creativity or ambiguity intolerance leads to creativity there are mixed conclusions. However, the link between ambiguity tolerance and creativity is associated with a higher potential for students to be successful in their lives after school. Giving youth the opportunity to be more comfortable with ambiguity will bolster their ability for future change:

Researchers also indicate a clear link between the level of a person's creativity and his/her readiness for changes and tolerance for ambiguity, the impact of high level of creativity, readiness for changes and tolerance for ambiguity on employees' productivity, job satisfaction, perception of innovations and efficiency of the company's operations as a whole. (Vynohradova et al., 2021, p. 47)

The Relationship between Psychological Contracts and Ambiguity Intolerance

The integrated concepts of psychological contract and ambiguity intolerance provide a comprehensive understanding of the relationship dynamics within educational settings. By examining the psychological contract between principals, teachers, and students and considering student levels of ambiguity intolerance, the impact of these leadership methods can be evaluated for their effectiveness in fostering creativity and promoting positive mental health and well-being. Such a study offers insights into the complex interplay between individuals and their environment, providing valuable guidance for principals and educators to enhance student experiences and outcomes.

Instructional Leadership and Creative Culture

Literature associating principals with instructional leadership dates back to the middle of 20th century America and has become an international topic in the 21st century (Hallinger et al., 2020). Lunenburg (2010) ascertained that

shifting the focus of instruction from teaching to learning; forming collaborative structures and processes for faculty to work together to improve instruction; and ensuring that professional development is ongoing and focused toward school goals are among the key tasks that principals must perform to be effective instructional leaders. (p. 1)

Research has shown that “instructional leadership [has] grown into one of the most powerful metaphors guiding our expectations for school leaders” (Hallinger et al., 2020, p. 1646). In schools, although instructional leadership can be taken on by a variety of stakeholders (Lunenburg, 2010), a significant role is played by the principal, who can deeply influence fostering creativity (Glaster, 2013). Alberta Education (2023a) asserts that “a leader ensures that every student has access to quality teaching and optimum learning experiences” (p. 4). This agency and the Education Act (2023) squarely place the role of a principal as the one responsible for the quality of education delivered within a school in their authority. Obviously, it is not possible, nor reasonable to have a principal single-handedly deliver the Programs of Study for all students, so they work with their staff to meet this standard. According to Koçak and Burgaz (2017), “the relationship between teacher productivity and school effectiveness increases the importance given to the job satisfaction of teachers” (p. 352). As a principal is charged with the responsibility of upholding this psychological contract, it is important that they nurture

relationships with teachers. Principals can implement a culture of creativity by establishing the following principles in their schools.

Time and Space

Recognizing the importance of providing time and space needed for creative exploration is essential in creating a nurturing school culture. Affording teachers the freedom to delve into creative pursuits is one of the ways in which principals can encourage teachers to dispense with traditional pedagogies (Livingston, 2010). Creativity thrives when individuals can explore their ideas without constraints or time pressures, and by creating this opportunity for teachers, students will benefit in the same way (Bibire et al., 2016). In this open and unhurried environment, teachers can experiment, take risks, and push the boundaries of conventional thinking. Lunevich (2021) illustrated that “creative teaching . . . stimulates creativity in learners” (p. 1454). As much as providing opportunities for exploration is important, cultivating the right “environments to encourage and enhance students’ creative problem-solving abilities” also has a significant impact (Im et al., 2015, p. 139). Embracing and prioritizing the provision of such time and space demonstrates a commitment to encouraging the growth and maintenance of a creative culture (Alberta Education, 2023a).

Creating Norms of Operations

Establishing values that promote creativity, such as such as curiosity (Ivcevic et al., 2022), resilience (Orkibi, 2021), and open-mindedness (Ivcevic et al., 2022), is a fundamental step toward cultivating a creative culture (Im et al., 2015; Newton et al., 2022). By recognizing the immense impact of creativity in shaping future student success, principals lay a foundation when they establish values. These values establish new norms of operation that not only embrace

but also nurture creative thinking (Im et al., 2015; Leggett, 2017). These new norms integrate a shared understanding of the importance of creativity into the fabric of daily operations (Livingston, 2010), encouraging individuals to think outside the box (Im et al., 2015; Lunevich 2021). Positive reinforcement plays a pivotal role in motivating teachers to explore creative teaching methods and to adapt to the new values and norms in their classrooms.

Modelling

The role of a principal in fostering creativity for middle and high school students is paramount, as it sets the tone and direction for the entire school. By encouraging staff to experience creativity firsthand through modelling creative processes (Legget, 2017; Newton et al., 2022), the principal not only demonstrates the value of creativity but also establishes a culture that embraces innovation and imaginative thinking. This approach is further fortified by the principal's emphasis on a process-driven framework that prioritizes creative thinking and action (Newton et al., 2022), creating an environment where novel ideas are nurtured and cultivated. To ensure the active promotion of creativity, the principal goes beyond theory by providing strategies and activities that engage both students and staff members in creative endeavours (Bibire et al., 2016; Legget, 2017; Lunevich, 2021; Vynohradova et al., 2021).

By offering diverse opportunities for creative expression, the principal stimulates a dynamic and collaborative atmosphere that celebrates individuality and fosters collective creativity (Im et al., 2015; Roth et al., 2022). Moreover, the principal recognizes the importance of scaffolding techniques in facilitating learners' creative development (Ivcevic et al., 2022). By providing appropriate support and guidance, learners are empowered to explore their creative potential with confidence and enthusiasm (Fullan, 2020). Finally, the principal takes an

integrated approach to character development and emotional engagement, understanding that these aspects are fundamental to unlocking the full potential of creative action (Ivcevic et al., 2022).

By promoting values, the principal cultivates a holistic approach to creativity, ensuring that students and staff are connecting their emotional responses to the creative processes (Collie, 2022; Fullan, 2020; Ivcevic et al., 2022; Lunevich, 2021). Embracing ambiguity tolerance, the principal equips individuals with the capacity to navigate uncertainty, thereby fostering an environment where creative thinking thrives even in the face of unknown challenges.

Structural Support

In fostering creativity in the classroom both Ivcevic et al. (2022) and Newton et al. (2022) emphasized the application of structure for learning activities. Having a place for exploration does not mean a lesson does not have parameters or organization. Bibire et al. (2016) identified that activities that are “supportive of the development of creative capacity of students are those forms of organization of educational process which enable discovery learning with an emphasis on practical activities which make students work independently, elevating students’ learning beyond knowledge acquisition” (p. 83). In working with staff, a principal can use this idea of structure to model learning activities, giving them the skills to tackle new possibilities in their classroom. Modelling structured approaches to fostering creativity also addresses ambiguity intolerance, encouraging individuals to embrace uncertainty and view it as an opportunity for growth and exploration (Ivcevic et al., 2022; Galster, 2013), rather than a barrier to creativity. The principal should be mindful of the psychological contract between the school and its members, fostering an environment of trust and mutual respect (Galster, 2013; Ivcevic et al.,

2022), wherein creativity is recognized, appreciated, and rewarded. By upholding this psychological contract, the principal reinforces the commitment to nurturing creativity as a shared responsibility, fostering a sense of belonging and empowerment among all stakeholders (González-Pérez & Ramírez-Montoya, 2022) within the educational community.

Reflective Practices

By setting clear and well-defined goals that align with cultivating a creative culture, the principal establishes a focused direction that integrates creativity into the fabric of daily teaching and learning. Moreover, the principal must recognize the transformative power of a reflective mindset and actively encourages its adoption among students, teachers, and staff (Lunevich, 2021). Emphasizing continuous improvement and learning (Galster, 2013), this reflective practice empowers teachers to examine their pedagogy to engage learners (Lunevich, 2021), as well as support students with their mental health and well-being (Collie, 2022), paving the way for ongoing growth and development.

In the context of fostering creativity, reflective practices enable teachers and students to revisit their creative processes, identify strengths, and explore areas for enhancement. By encouraging open dialogue and constructive feedback (Collie, 2022), the principal nurtures an environment where diverse perspectives are valued (Fred et al., 2020; Im et al., 2015), creating a sense of psychological safety (Vynohradova et al., 2021) that promotes risk-taking and innovation (Marzano, 2005; Newton et al., 2022). This approach addresses ambiguity intolerance as individuals embrace uncertainty as an inherent aspect of the creative journey (Peschl et al., 2021), viewing it as an opportunity for exploration and learning (Newton et al., 2022) rather than

a hindrance to progress. This cultivated tolerance for ambiguity enables the school community to approach challenges with adaptability and resilience.

A principal's dedication to establishing reflective practices serves as a cornerstone for sustainable growth and development, ensuring a culture of creativity within the educational institution. By allowing time and space, establishing new norms, modelling behaviours, providing structural support, and setting clear goals with a reflective mindset, principals can nurture the relationships in psychological contracts, embrace ambiguity tolerance, and create an inclusive and innovative learning environment that not only fosters creativity but also equips students and staff with the tools to thrive in an ever-changing world.

Nurturing a Culture of Growth and Transformation

The following section focuses on the importance of building on the initial culture of creativity, by emphasizing internal incentives (Ivcevic et al., 2022). A good basis for growing creativity in a positive manner is to “start with consideration of motivation, build on research of the emotion skills involved in maintenance of effort and persistence, and foster the development of self-efficacy and identity as a prosocial problem solver” (Ivcevic et al., 2022, p. 9).

Supportive Environment

To encourage growth in a creative culture, principals can provide daily support and encouragement to both staff and students, acknowledging and celebrating their creative endeavours (Chin et al., 2023). As principals are responsible for conducting supervision, acknowledging creative developments motivates teachers to continue to innovate. Then, principals should continue creating a low-stress and positive environment (Dobina, 2019), where individuals feel comfortable taking creative risks, expressing their ideas, and supporting mental

health (Zheng & Miller, 2017). Newton et al. (2022) suggested that it is healthy to “depict unsuccessful ideas as a normal part of the risk taking in creative thinking” (p. 1340). To properly sustain growth, principals can ensure the availability of necessary resources and guidance, equipping teachers and students with tools to explore and experiment creatively (Leggett, 2017). Way et al. (2022) found that a method of supporting teacher growth with collegial interactions and a structured system of embedding new practices into the classroom had positive impacts on student learning. When principals invest in support and professional learning programs for teachers, a community of continuous learning and growth can be established as normal (Anderson et al., 2022).

Within this context, ambiguity tolerance becomes essential, as principals encourage individuals to embrace uncertainty and view it as an opportunity for exploration and innovation (Dobina, 2019; Marzano, 2005; Peschl et al., 2021). This openness to ambiguity enables a willingness to explore uncharted territories and tackle complex challenges creatively. Principals uphold the psychological contract with teachers and students by cultivating an atmosphere of trust, mutual respect, and support, ensuring that individuals feel valued for their creative contributions and ideas. By integrating these elements, principals establish a thriving culture where creativity is not only encouraged but also celebrated as a fundamental aspect of the learning process.

Adaptability

By promoting adaptability as a component of ambiguity tolerance, principals empower teachers, students, and staff to approach complex problems and challenges with resilience, seeking inventive solutions (Orkibi, 2021; Vynohradova et al., 2021). The consistent pursuit of

novel solutions is dependent on change, and by embracing dynamism, students understand the creative process can change, adapt, and rework, depending on the goal of the project (Ivcevic et al., 2022). A learning community can recognize that adaptability is a key skill that equips individuals to navigate the ever-evolving demands of the 21st century effectively. Furthermore, principals take an active role in guiding and supporting their staff through periods of change and innovation (Fillah et al., 2021). By providing a safe and supportive space for experimentation and adaptability, principals empower educators to implement novel teaching methods and pedagogical approaches, and to build a community that not only embraces change but also actively contributes to the continuous improvement of teaching and learning experiences and mental health (Robinson et al., 2019). By promoting ambiguity tolerance, adaptability, and providing guidance during times of change and innovation, school leaders pave the way for a culture that is embedded with creativity.

Embracing Challenges and Growth

Embracing challenges as opportunities for growth fosters creativity and continuous improvement within a middle and high school setting. Principals who promote challenges as opportunities for learning and exploration can foster creative environments that positively affect mental health (Dobina, 2019). By encouraging individuals that they are capable of meeting challenges and achieving goals, principals instill a sense of resilience and determination that empowers students and staff to tackle complex problems with confidence (Collie, 2022). Ivcevic et al. (2022) took a view on scaffolding learning generated from the theory of positive creativity. Positive creativity is the concept that new ideas are generated for the purpose of and results in prosocial benefits (Ivcevic et al., 2022). Working examples come from inspirED, “a program

aimed at amplifying student voices and creating positive change in schools” (Ivcevic et al., 2022, p. 2). In the process of the program, principals acknowledge the cyclical nature of the creative process, understanding that

those who think of themselves as prosocial problem solvers are more likely to engage in creative prosocial acts (it is satisfying to engage in behaviours that are consistent with one’s self-image), and those acts in turn reaffirm that the person is truly a prosocial and creative problem solver. (Ivcevic et al., 2022, p. 8)

This recognition helps to dispel the notion of failure as a final outcome; and instead, positions it as a crucial part of the journey towards success (Newton et al., 2022; Zheng & Miller, 2017).

Cultivating a growth mindset is equally essential, as it fosters a belief in the capacity for continuous improvement and the understanding that abilities can be developed through dedication and effort. Ivcevic et al. (2022) continued by stating that “creative self-efficacy—the belief in one’s ability to successfully complete tasks that call for creativity—motivates creative behaviour” (p. 8). Embracing a growth mindset enables individuals to approach challenges with a sense of optimism and a willingness to persist in the face of setbacks. Through the combination of embracing challenges as opportunities for growth and recognizing the cyclical nature of the creative process, principals can foster an environment where individuals can push the boundaries of their potential.

Collaboration and Integration

Nurturing a culture of growth and transformation requires a multifaceted approach that encompasses various interconnected elements (Hollenberg, 2017). Coleman & Lind (2020) allege that collaboration is essential for creativity, in that “a genuine commitment to

collaboration . . . heightens the collective sense of ownership for participants” (p. 93).

Cultivating collective efficacy through collaboration instills a sense of shared responsibility and empowers the school community to drive towards problem-solving (Lunevich, 2021). By fostering satisfaction and fulfillment among staff and students in a collective community, principals create an environment where individuals are motivated by their own self-confidence (Collie, 2022).

Integrating creativity throughout the school culture ensures that creative thinking becomes an important part of the collective learning experience, empowering students to approach their assignments with a sense of curiosity and inventiveness. Ivcevic et al. (2022) indicated that this curiosity “encourages students not to avoid uncomfortable or unpleasant emotions” (p. 5). Finally, collaboration cultivates an atmosphere where diverse perspectives are welcomed and valued, developing an inclusive and dynamic environment for creative growth and transformation (Hollenberg, 2017; Im et al., 2015; Livingston, 2010; Roth et al., 2022). Not only had Roth et al. (2022) established that creative thinking procedures are cross-curricular, but that “exposure to different frames relies on meaningful social interaction and communication: both are key to promoting the type of diverse and resourceful working atmosphere which, by offering various frames, can nurture creativity” (p. 1295). Collaborative creativity can propel growth through transformative learning experiences.

Fostering Inquiry for Creativity

An inquiry-based program has been shown to be beneficial in fostering creativity (Kim et al., 2023; Legget, 2017; Newton et al., 2022). According to Matsumoto (2022), an inquiry-based program is an educational approach where students engage in active learning by posing

questions, investigating methods, gathering evidence, and drawing conclusions. Inquiry-based programs require students to operate in a learning environment in which they are expected to pursue novel and undefined solutions to challenges, which is part of the definition of creativity (Ismayilova & Bolander Laksov, 2023). When students are asked to critically examine multiple options to address a challenge, they are generating creative ways to solve problems.

Additionally, Matsumoto (2022) concluded that “inquiry-based learning is a highly recommended way to motivate students to get more involved in their own learning, develop their critical thinking skills, improve their communication skills, and instill lifelong learning habits” (p. 41). The following will detail effects related to fostering creativity through a lens of inquiry.

Prosocial and Inclusive Environment

By nurturing a prosocial and inclusive environment, principals promote understanding and collaboration among students and educators, which supports inquiry-based pedagogy. Collie (2022) collected information that suggested principals can support a prosocial learning environment by implementing social and emotional learning (SEL) programs and incorporating need-supportive teaching practices. Not only do SEL programs work to create benefits for student mental health, but they also bring students and teachers together to work toward a common goal. In a school environment, “the prosocial emotion of sympathy (reaction to others’ distress) inspired motivation to help others and sustained effort” (Ivcevic et al., 2022, p. 4). Collaboration and determination are effects of sympathetic feelings, which supports the need for inclusive environments. Practices including inquiry-based discussions, such as a Socratic method of debate, are both inclusive and reflective (Icevic et al., 2022). By integrating these practices into the school environment, principals can build a supportive and emotionally nurturing

atmosphere which positively impacts student social and emotional competence, motivation for cooperation, and overall well-being.

Inquiry-Based Student-Led Learning and Cross-Curricular Integration

By emphasizing inquiry-based learning and cross-curricular integration, principals encourage students to explore their interests, driving their learning with self-directed curiosity (Leggett, 2017; Livingston, 2010; Lunevich, 2021; Newton et al., 2022). Newton et al. (2022) described that “a question-driven approach which demands an in-depth exploration of a topic could include student-generated problems and their solution” (p. 1341). Open inquiry, where students generate questions to guide their work (Matsumoto, 2022), sparks student curiosity by putting them in control of the process, potentially allowing them to pursue personal interests related to their area of study. Furthermore, integrating exploration in a lesson “stimulated intrinsically motivated engagement in activities that provided students with opportunities to develop creative thinking skills that could then be applied in the future across a range of individual and collective problem-solving contexts” (Lunevich, 2021, p. 1455). Both of these studies indicate that when student ideas are included in inquiry-based learning, then there is potential not only for creativity but also prolonged engagement.

Empowering student-led learning and fostering creativity, principals recognize the importance of providing opportunities for students to take ownership of their learning and express their unique ideas (Lunevich, 2021). It has been acknowledged by Schut et al. (2020) that providing explicit and specific examples can limit opportunities for unique concepts as student ideas “are derived from popular culture or examples shown by the teacher, since this is an easily accessible source of inspiration for them” (p. 956). Educators understand that “teaching

for creativity should encourage learners to take control to facilitate innovation” (Lunevich, 2021, p. 1454). In essence, by encouraging student autonomy and embracing a more open-ended approach to teaching, educators can cultivate an environment where originality and innovation thrive, resulting in creativity and diverse perspectives along the learning journey.

Principals can recognize the value of inquiry-based learning, where students are encouraged to ask questions, explore topics of interest, and engage in deep investigations (Legget, 2017). Empowering student-led learning is equally essential because students are more engaged and motivated when they have a sense of agency in shaping their educational journey, especially when the objectives are within their grasp (Collie, 2022). Making connections across curriculum can extend student inquiry. By promoting cross-curricular integration (Roth et al., 2022), principals bridge the gaps between subjects, enabling students to make connections and see the relevance of their learning across various disciplines. Educational leaders can advance creativity and problem-solving skills “by maintaining a permissive climate, mental freedom and dialogue through a democratic governance of teaching, thus offering students freedom of thought and action” (Bibire, et al., 2016, p. 83). Moreover, principals can encourage educators to design learning experiences that challenge students to think critically when they focus on inquiry-based learning (Hollenberg, 2017; Lunevich, 2021) and explore multiple perspectives (Ivcevic, 2022).

Encouraging Innovative Practices and Engagement

Establishing inquiry-based learning as a means to creativity (Lunevich, 2021; Newton et al., 2021) requires a multifaceted approach that goes beyond traditional teaching methods into an immersive learning environment, which sparks student imagination and a sense of wonder. For a school community to “center its mission on honing creativity, it can best do so by pedagogies

that maximize opportunities for students to practice being inventive” (Livingston, 2010, p. 60). Encouraging novel innovation allows students to express their unique ideas and develop their creative potential (Zheng & Miller, 2017). Peschl et al. (2021) supported that self-reflective traits are essential in entrepreneurial endeavours, which are highly associated with creative thinking (Brauckmann & Pashiardis, 2020; Zemlyak et al., 2022) and can foster mental well-being by encouraging individuals to face uncertainty with creativity and adaptability. Within this context, principals uphold the psychological contract between the school and its members, creating a creative culture of support through prosocial behaviour, respect through inclusion, and trust through open exploration.

Continuing a Culture of Innovation

Once a strong basis for creativity has been established, it is important to consider how it will be sustained over time. Pietsch et al. (2022) asserted that principals not only need to be innovative but flexible and responsive to their environment. The following section will conclude the examination of fostering creativity within a school context by highlighting the effects of positivity, goal setting, embracing emotions, balancing processes and outcomes, and communication.

Future Thinking and Positive Creativity

Hollenberg (2017) emphasized the importance of connecting past events to present situations in order to inform of future possibilities. As an instructional leader, a principal can instill beliefs of a promising future through establishing self-efficacy in staff and students. A developed sense of self-efficacy leads to optimism and self-confidence, helping students navigate social interactions without feeling doubt (Collie, 2022). A principal can establish an environment

in which “teaching for positive creativity builds creativity skills along with social and emotional learning, and places them in the context of positive youth development that includes building confidence, competence, character, connection, caring, and contribution to society” (Ivcevic et al., 2022, p. 3). By promoting optimism and cultivating a hopeful outlook, principals inspire students and staff to approach challenges with a sense of playfulness and possibility (Legget, 2017). Studies, including Robinson et al. (2019), have found a strong connection between creativity and tolerance for ambiguity. Creative individuals tend to exhibit higher levels of tolerance for uncertain situations, which can contribute to better mental health and well-being as they are more adaptable and open to new possibilities. Defining what a belief in oneself can do will empower individuals by giving them goals.

Encouraging Risk-Taking and Goal-Oriented

Establishing risk-taking and goal setting will harness student emotions, filling them with confidence and imbuing their work with passion. Galster (2013) emphasized the need for principals to “model impeccable leadership and, simultaneously, provide transparent support by encouraging the risk-taking of others and accepting their failures as they make attempts to innovate and improve instructional practices” (p. 303). Regarding creative thinking, Newton et al. (2022) suggested that direct planning of a lesson might “depict unsuccessful ideas as a normal part of the risk-taking” (p. 1340). Principals can understand the importance of students and educators taking calculated risks in their educational approaches to explore new ideas and methods and can create a space where students feel empowered to step outside their comfort zones and engage in innovative experimentation (Zheng & Miller, 2017). Zheng & Miller (2017) highlighted the significance of creative potential and risk susceptibility in implementing

innovations related to specific educational aspects. Embracing creativity and taking calculated risks can lead to personal growth and a positive impact on mental health.

Principals can emphasize the purpose behind creative initiatives, ensuring that they align with the broader vision of the school, fostering a sense of direction and relevance. Making goals for projects not only sets targets for learners it creates a clear end point. Principals can choose end points that reinforce prosocial behaviour. As discussed earlier, Ivcevic et al. (2022) contended that students engaged in prosocial behaviour also develop creative skills. If principals recognize that emotions play a significant role in driving action, they can inspire students and staff to pursue innovative solutions when faced with challenges. By creating an atmosphere that acknowledges and validates emotions by making them goals, principals empower individuals to express their creative ideas with confidence and passion.

Balancing Process and Outcomes

Continuing a culture of innovation requires a balanced focus on both the creative process and tangible outcomes. Understanding “the product-process nature of creative thinking” will allow teachers to embrace creativity fully, “something that will be particularly important when assessing and grading students’ work” (Newton et al., 2022, p. 1342). Valuing the process of creativity, where exploration, experimentation, and iteration are celebrated as essential components of the learning journey, will help validate student work by focusing on more than the final assessment and its academic value. By emphasizing the creative process, reporting student success will look different than traditional score values out of 100. At the same time, recognizing the importance of tangible outcomes and achievements ensures that creativity is not merely an abstract concept but a practical and applicable skill.

Creative thinking can be practically applied to solve problems and address real-world challenges preparing students to become effective problem solvers and innovative thinkers in their future endeavours. “Supportive of the development of creative capacity of students are those forms of organization of educational process which enable discovery learning with an emphasis on practical activities which make students work independently, elevating students’ learning beyond knowledge acquisition” (Bibire, et al., 2016, p. 83). Through a balanced focus on the creative process and practical outcomes, principals sustain a culture of innovation that not only sparks creativity but also empowers students and staff to translate their creative ideas into meaningful and impactful solutions.

Future-Ready Development

Being ready for the future is a way to foster creativity and develop students in a holistic manner. Research indicates that “policy and studies about ‘future skills’ tend to assume that the kinds of skills future generations will need are fixed” (Carvalho et al., 2022, p.1). With the advancement of technologies in the workforce, for instructional leaders to be equipped to further future-ready development, they themselves “must be prepared with the knowledge and competencies to integrate technology into their administration of schools” (Awodiji & Naicker, 2023, p.2). Other studies suggest that future-ready development should aim at “learning to deal with the rapid development of technologies, and to cope with the continuous access to vast amounts of new knowledge and information” (Carvalho et al., 2022, p. 1), emphasizing attitudes and behaviours over specific skills. According to Elayyan (2021), developing attitudes that enable life-long learning and accepting inevitable change is as important as maintaining “our core attributes, our ethical standards, and our way of life” (p. 24). "In education, these principles

are informed by the social and cultural values of students, students' families, and teachers" (Beghetto & Anderson, 2022, p. 3), establishing that as social beings it is important for stakeholders in education to have common goals. When these stakeholders collectively strive for shared objectives, it creates an environment conducive to fostering creativity and positive student character traits (Ivcevic et al., 2022), highlighting the interplay between creativity and the holistic growth of students.

Effective Communication

The significance of an open process pursuing valuable, novel, and undefined solutions to challenges (Ismayilova & Bolander Laksov, 2023) may not always be fully understood by all members of the school community. To address this, principals must take an active role in communicating the importance of creativity and how it is interwoven with social interactions (Hollenberg, 2017). By fostering an open and transparent dialogue, principals promote a shared understanding of the value of creativity and its relevance in future-ready development.

Establishing a clear, professional, and shared understanding of creativity among the school's staff ensures a cohesive and aligned approach to nurturing creative thinking. Hollenberg (2017) claimed that misidentifying creativity as either revered as sacred or unrelated to practical processes makes it inaccessible or uninteresting. Additionally, a student's creative "success depends on a shared, well-founded perspective of creative thinking" (Newton et al., 2022, p. 1341). Principals can actively address preconceived ideas and misconceptions about creativity that honours humanity's defining characteristics, principles, and way of living (Elayyan, 2021).

Moreover, the psychological contract within a school plays a pivotal role in sustaining a culture of creativity and future-ready development. Principals uphold an environment of trust,

respect, and support (Fenech, 2021; Koçak & Burgaz, 2017), wherein individuals feel empowered to express their ideas, take risks, and learn from mistakes without fear of judgment (Beghetto & Anderson, 2022; Fenech, 2021; Lunevich 2021; Piirto, 2021). Principals who encourage teachers to utilize their abilities, perspectives, and entrepreneurial potential for the benefit of the organization and innovation (Koçak & Burgaz, 2017) are indicating their trust, implying a level of respect for a teacher's unique abilities. According to Fenech (2021) "students' satisfactory experience is likely to include the perception that the higher education institution understands their goals and supports their achievement" (p. 2). A specific aspect of this support was that students expected "communication with the teacher, such as to be listened to" (Fenech, 2021, p.8). Piirto (2021) accounted that "a teacher of theatre, related that students were hungry for a non-judgmental atmosphere which encouraged experimentation" (p. 4). Similarly, Lunevich (2021) indicated that "teachers might benefit from taking risks and trying new strategies to evaluate what works" (p. 1449). This sense of psychological safety is developed by the psychological contract, wherein students and staff are encouraged to actively engage in sharing ideas and risk-taking, opening the grounds for creativity.

By emphasizing future skill building, addressing misconceptions, and maintaining a strong psychological contract, principals reinforce the commitment to continuing a culture of creativity. This approach ensures that creativity remains at the forefront of the educational institution's mission, leading to a dynamic and transformative learning environment that prepares individuals for the future.

Summary

Principals play a crucial role in fostering creativity within the school community through various strategies. They must provide time and space for creative exploration, encouraging experimentation with new teaching methods, and establish norms that nurture collaborative and innovative thinking among educators. By modeling creative processes and offering support and guidance, principals can demonstrate the value of creativity, establishing a dynamic learning environment where structural support through well-organized learning activities further enhances creative capacity. Additionally, upholding the psychological contract within the school community, fostering trust, respect, and reflection is essential. By emphasizing the value of embracing ambiguity and continuous improvement, principals empower students to thrive in an ever-changing world.

To nurture a culture of growth and transformation, principals should prioritize internal incentives and motivation, providing daily support and recognition for creative endeavors. Creating a positive and low-stress environment where individuals feel comfortable taking creative risks is crucial. Principals must ensure necessary resources and guidance are available to promote continuous learning and growth while embracing challenges and cultivating a growth mindset to foster resilience and determination among students and staff. Collaboration and integration play a significant role in creating an inclusive and dynamic environment for creative growth and transformation as principals foster satisfaction, collective efficacy, and collaboration among staff and students.

To foster a culture of inquiry and creativity, principals should prioritize creating a supportive and inclusive environment that encourages collaboration and understanding, with

strong mental health and well-being. SEL programs and need-supportive teaching practices can be utilized to achieve this. Principals should emphasize inquiry-based learning and cross-curricular integration to encourage students to explore their interests and develop creative thinking skills. The principal accomplishes this by empowering student-led learning and providing opportunities for teachers and students to express their distinctive ideas through establishing a welcoming environment for fostering creativity.

In Chapter 1, the exploration of fostering creativity in middle to high schools was refined through research questions and identified the significance of the impact of leadership strategies. In Chapter 2, terminology used in the capstone project was defined and attention to the concepts of ambiguity tolerance and psychological contract were discussed. The literature review was organized by thematic content in a way that illustrated a possible sequence for principals to follow. The capstone project will conclude with implications derived from the literature study on specific stakeholders with recommendations.

Chapter 3: Summary, Recommendations and Conclusions

Summary of Findings

Principals can encourage a learning environment that fosters creative thinking among educators and students by providing time and space for exploration. Norms that promote collaboration and innovation further enhance creative capacity among teachers and students. To cultivate a creative culture of growth and transformation, principals focus on providing support for creative endeavors, while ensuring necessary resources and guidance are available for continuous learning. Collaboration and integration are crucial for creating an inclusive and dynamic environment, where self-efficacy among staff and students is supported through SEL programs for positive mental health and well-being. Inquiry-based learning and cross-curricular integration are highlighted as practices to encourage students' creativity. Ultimately, fostering trust and support within the school community will create an environment where creativity thrives and students develop positive mental health skills.

Implications

The following section outlines the implications drawn from the literature review aimed at understanding the effect that principals can have on fostering a creative learning environment that positively supports student mental health and well-being. There will be an examination of different stakeholders identifying the potential strengths and opportunities as well as the weaknesses and threats.

Students

Students in a middle and high school setting may experience a more nurturing and empowering learning environment when a principal has focused on fostering creativity. They can

benefit from increased opportunities for collaboration while also being supported in their emotional well-being and personal growth.

A creative learning environment provides students with ample opportunities to work collaboratively (Coleman & Lind, 2020; Thornhill-Miller et al., 2023). What is required of students is engagement (Rothes, 2022), which is difficult to instill. When teachers model creative processes, it can inspire and motivate students to engage actively in their education. When students witness desirable standards of conduct, they are likely to adopt similar values and principles, which contribute to the development of their character. While working in a group setting, individual actions are governed by interactions that illustrate collective norms. A social group will let its constituents know what is acceptable through positive reinforcement. This is also true for unacceptable behaviour; a group will identify unwanted behaviour with negative reinforcement. A stable environment is a result of the group consistently upholding its norms.

As established earlier, creativity and prosocial behaviour are connected (Ivcevic et al., 2022). The group dynamics of a creative learning environment establish a sense of responsibility among students to be prosocial. When encouraged to explore and experiment with ideas that benefit the group overall, students take ownership of their learning journey, becoming more accountable for their progress and outcomes (Ivcevic et al., 2022; Lunevich, 2021).

This empowerment is further amplified by giving students the opportunity to have a voice in the learning process, encouraging them to express their thoughts and opinions freely. Students are required to take the opportunity seriously and engage in whatever process is developed accordingly. In addition to modelling, encouragement is needed. As educators provide more emotional support, student well-being is prioritized, nurturing a psychologically safe atmosphere

(Vynohradova et al., 2021). Diverse backgrounds and perspectives will be valued, (Fred et al., 2020; Im et al., 2015) providing more opportunities for creative risk-taking (Newton et al., 2022).

Parents and Caregivers

Parents and caregivers of students have a role in education ranging from supporting an agreement about student conduct to engaging with the school community (*Education Act, 2023, c E-0.3 s16.2*). Working with the school to develop and nurture creativity can develop strong ties between families and the school (Beghetto & Anderson, 2022). It is important that principals communicate goals clearly as misconceptions can derail purposeful messaging about the long-term goals of a creative learning community (Hollenberg, 2017; Newton et al., 2022).

Fostering creativity in a school requires a focused and sustained level of communication with stakeholders, which can develop a dialogue. Conversations with parents and caregivers about creativity will help improve mental health and well-being (Dobina, 2019; Ivcevic et al., 2022; Newton et al., 2022; Zheng & Miller, 2017), affirming a positive attitude within the school context. The essence of these conversations will include inviting parents and caregivers to engage in proactive character development along with the school.

Impactful communication comes with encouraging parents and caregivers to participate and incorporating feedback (Roth et al., 2022; Thornhill-Miller et al., 2023). This form of dialectic process illustrates that the school community seeks to find a truth relevant to more than one party and invites parents and caregivers to help define that truth. Educators can bring parents and caregivers into the school community to support programs centered on fostering creativity, which forges a working relationship (González-Pérez & Ramírez-Montoya, 2022). This

partnership can extend both ways as the school supports families, extending into conversations about mental health, inclusivity, and diversity (Im et al., 2015; Rothes et al., 2022). As a whole, parents and caregivers can become advocates for the approach to fostering creativity in the school setting.

As in many school initiatives, time can be a barrier in developing creativity. For parents, partnerships can pose a challenge as they require more time and involvement. Furthermore, a change in the school operations can be seen as a challenge in and among itself. As discussed, change can incite negative responses (Sphon & Grady, 2020), and presenting a new learning environment may illicit strong negative reactions from parents and caregivers.

Defining what creativity means within the school context is important, as misconceptions can impede success (Hollenberg, 2017; Newton et al., 2022). It is helpful to provide this context in situations where parents and caregivers do not agree with the importance of creativity or even reject the notion of pedagogy that supports creativity, such as inquiry and student-centred approaches (Lunevich, 2021; Newton et al., 2022). Parents and caregivers need to possess correct information, so they are aware of the benefits and growth involved.

Teachers

Along with parents and students, teacher responsibilities are identified in the Education Act (2023), including the competent delivery of instruction approved under the legislation. Alberta Education (2023b) identified that teachers must continuously develop their practice. A focus on developing creativity in the school can provide an opportunity for teacher professional growth; although, the measurement of success can be difficult and teacher buy-in is necessary for its success.

Teachers are often seen as the front line of education. As they spend the majority of time interacting with students, they embody the values and goals of the school, district, and province. This is a unique opportunity for teachers to be the spokesperson for cultivating creativity, through modelling an openness for exploration in their practices and teaching in a manner that illustrates calculated risk-taking (Newton et al., 2022). To support teachers in their growth, principals can administer purposeful supervision while working in a collegial manner to help identify areas of need in the midst of change.

Feedback from supervision is a way to illicit self-reflection, a powerful aspect of creativity (Lunevich, 2021). Alberta Education (2023b) identified in the teacher competencies that a “teacher engages in career-long professional learning” and can achieve this when he or she is “actively seeking out feedback to enhance teaching practice” (p. 3). Teachers need to consider their own thinking processes to create specific goals for their professional learning. Such goals might involve working with other teachers (Way et al., 2022), or even accepting mentorship for leadership roles within the school (Alberta Education, 2023a).

However, it can be difficult to lean into growth, as it is incumbent on an individual to be vulnerable while embarking on change (Spohn & Grady, 2020). This might be a difficult position for some teachers to buy into, especially when there has not been an environment of collegiality established within the school setting. Creating culture is also time-consuming, and teachers need to acknowledge that a process of fostering creativity will take time and its success will be difficult to measure.

Again, having a collective understanding of creativity will help mitigate this issue, but it does pose a problem in the initial stages where buy-in to change is crucial. It is important to have

a shared understanding of creativity so instruction and classroom practices do not unintentionally glorify the process, making it inaccessible and unrelated to everyday practices (Hollenberg, 2017).

Principals

The promotion of a “culture that supports evidence-informed teaching and learning” (Alberta Education, 2020a, pg. 3) is the responsibility of the principal. While focusing on fostering creativity, a principal has the opportunity to help teachers implement a creative culture by supporting positive mental health, establishing strong community bonds, and sustaining a legacy that is not reliant on any one individual. In developing a creative culture, the principal must be aware of available resources for the needed support along the way.

Support during change is important to nurture exploration and engagement (Fullan, 2020). A structured system of practices is a possible option for educational leaders to support teaching staff (Bibire et al., 2016; Newton et al., 2022), which in turn, has positive effects on student learning (Way et al., 2022). Additionally, the effects of this support can be seen by parents and caregivers giving way to the possibility of establishing a collaborative environment for all stakeholders (González-Pérez & Ramírez-Montoya, 2022; Im et al., 2015; Roth et al., 2022). With a strong culture based on values (Fred et al., 2020; Ivcevic et al., 2022), a principal can look for sustaining an environment that fosters creativity, even without the direction of any particular individual—the group will become the advocate of the practices.

With this collective strength comes the potential for challenges. A requirement for group norms to work is to have buy-in to the idea. As mentioned earlier, purposeful communication from the principal will be important to shape this understanding (Roth et al., 2022). Principals

have to do careful planning to ensure that future work aligns with provincial requirements, such as the individual programs of study (Alberta Education, 2023a; *Education Act*, 2023). Also, it is important for a principal to understand their staff's readiness to transition into change (Fullan, 2020). If there is any resistance to the proposed changes, then there will be a disintegration of cultural norms, which is needed to grow a culture based on fostering creativity.

Policy Makers

Alberta Education (2020a) defined that principals are entrusted to build knowledge regarding policies and legislation within the learning community. Additionally, principals must develop clear and purposeful policies such as education plans and administrative procedures. Policymakers have the opportunity to promote wellness and focus on future-ready skills for students in a creative learning environment. By developing district initiatives grounded in research-based practices (Alberta Education, 2023a), school communities can work collaboratively to develop creative cultures of learning. It is important to acknowledge the potential ambiguity that lies in setting goals on culture development and a focus on competent leadership and staffing will help mitigate uncertainty and doubt during change processes.

Recommendations

To build a learning culture that fosters creativity, it is important to have continuity among stakeholders. The following recommendations focus on coherency with district, school, and community members.

Policy Driven

By setting education goals that prioritize nurturing creativity, principals can then have the opportunity to enact more specific initiatives. Principals can use the overarching priorities set by

the district to frame discussions at a school level, working toward alignment with school initiatives and district goals. This process can help in creating a unified approach, so that the mission of a school will be a subset of the larger mission of a district. The professionals of the learning community will be working in the same direction making dialogue with senior administration, school-based administration, and educational staff purposeful and applicable. The relationships formed with students, parents, caregivers, and the community will all have a similar purpose, making a unified approach to fostering creativity.

Moreover, the importance of integrating new ideas while building on existing strengths, striking a balance that honours the school's traditions while embracing new and innovative practices (Lunevich, 2021), should be considered. Stakeholder engagement meetings can be held so that community members, teachers, and administrators have an opportunity to voice what they feel is important (González-Pérez & Ramírez-Montoya, 2022). The integration of stakeholder perspectives in developing educational goals in the skills framework (González-Pérez & Ramírez-Montoya, 2022) will allow for existing practices that are valued to remain.

Resource Supported

For initiatives to have the potential for growth and sustainability, proper resources need to be in place. A creative culture that is intertwined with supporting positive mental health would need the proper lead-in for teachers. A program to support SEL in a school would help shape positivity (Collie, 2022). An essential component of this process is implementing a structured framework that provides the necessary guidance while still allowing room for imaginative expression, considering specific requirements and constraints. This entails integrating creativity into the fabric of daily operations (Livingston, 2010), encouraging individuals to think outside

the box (Im et al., 2015; Lunevich 2021) and having a shared perspective of the importance of creativity (Newton et al., 2022). A principal can use this idea of structure to model learning activities with staff, giving them the skills to be able to tackle new possibilities in their classroom. Promoting values such as curiosity (Ivcevic et al., 2022), resilience (Orkibi, 2021), and open-mindedness creates an environment where professional reflection (Schut et al., 2020; Lunevich 2021) and collaboration (Livingston, 2010; Newton et al., 2022) become the norm.

The work of Ivcevic et al. (2022) focused on a program in which students “were guided to apply the skill of using emotions to facilitate thinking and problem-solving” (p. 2). A comprehensive program such as this could be a way in which a school community might integrate emotional importance into classroom practices. In times of transition, it is helpful to focus on incremental growth, and supporting teachers in shaping instruction to incorporate prosocial behaviour might be too much all at once. With programs that incorporate creativity and prosocial behaviour, such as the program focused on by Ivcevic et al., (2022) inspirED for secondary school students, teachers would have a structure for their progression (Bibire et al., 2016; Newton et al., 2022) that would alleviate potential resistance (Spohn & Grady, 2020) associated with ambiguity intolerance.

“Makerspaces are considered an effective tool in the development of creative skills and positively affect users’ thinking ideas, and ability to produce creative solutions in various domains such as art, science, technology, and engineering” (Soomro et al., 2023, p. 531). Not only are makerspaces a relevant conversation in pedagogy, but they are a means for teachers to mix a variety of curricular objectives, and even a variety of curricula. Multidisciplinary collaboration was cited as one of the most important methods of fostering creativity (Soomro et

al., 2023). So, a program that includes cross-curricular collaboration within a school would prove to be beneficial.

Time Honoured

In all, the overarching recommendation for the development of a learning culture that fosters creativity is to allow for time. In an open and unhurried environment, teachers can experiment, take risks, and push the boundaries of conventional thinking. An education plan needs to be reflective of its community and responsive to its needs, which makes it a living document, changing with the context. By encouraging open dialogue and constructive feedback (Collie, 2022), the principal nurtures an environment where diverse perspectives are valued (Fred et al., 2020; Im et al., 2015), fostering a sense of psychological safety (Vynohradova et al., 2021) that promotes risk-taking (Newton et al., 2022) and innovation (Marzano, 2005). Principals uphold this contract by cultivating an atmosphere of trust, mutual respect, and support, ensuring that individuals feel valued for their creative contributions and ideas.

Providing time and space allows students the freedom to delve deeper into their interests, encouraging self-discovery and strengthening individual mental health and well-being (Collie, 2022). A consideration for how this might be implemented in a middle school or high school would be to schedule periods of instruction to be at least an hour in length, and for programs to extend across a year, rather than a semester.

Conclusions

While humans possess the potential to master creativity, it sometimes lies dormant and requires awakening. This dormancy can be accompanied by the fear of change—a biological response triggered by challenges to our established understanding. In a society where the pace of

change has escalated dramatically, the future remains uncertain. Here, creativity serves as the vessel to guide humanity through shifting landscapes and the impending mystery of an unknown destiny.

In a world that is fundamentally reshaping itself within the span of a generation, how can educators equip themselves to assist students? The interplay among students, teachers, and principals plays a pivotal role in defining the trajectory of learning within a school community, offering a platform to champion creativity. With the principal's leadership, teachers can be empowered to navigate uncertainty within a creative culture and to highlight the significance of confronting challenges and embracing change.

Healthy relationships provide an open horizon for student opportunities. Many strategies exist to help principals cultivate a creative culture. Principals can embody an attitude and exemplify behaviours that are crucial fostering creativity. By offering professional and personal support to teachers, principals enable them to foster students' creativity and promote positive mental health and well-being.

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