Leadership Recipes for Promoting Students' Creativity

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Abstract

In today's competitive world, the only thing that is constant is change. As a result, creative capacity is the key. Creativity has become a topic of ever-increasing interest in educational settings. Like it or not, teachers serve as the metronome in the classroom. The meter and behavior established by them set the patterns and establish the models for students' behavior as individuals and as a group. Thus, there is a need to identify the role of teacher leadership behaviors for students' creativity. The purpose of this article is to propose possible approaches to facilitate creativity in the classroom, especially with the emphasis on leadership perspective. First, the definition of creativity is discussed. Then based on the literature, several strategies and ideas of promoting creativity are reviewed. Next, a possible model is proposed, including knowledge, creative thinking, motivation and self-efficacy, goal setting and work group, transformational leadership, and supportive leadership. With each component, several propositions are also provided. Finally, the implication of this model is described.

Keywords: creativity, leadership, teacher leader, transformational leadership

Introduction

In today's competitive world, the only thing that is constant is change. For instance, a strong linkage between climate and creative endeavor is contingent on the essentials of innovation for a savage business jungle, especially in a tempestuous environment with pressure of competition (Hunter, Bedell, & Mumford, 2007). As a result, creative capacity is the key. Creativity has become a topic of ever-increasing interest in educational settings (Craft, 2003; Feldman & Benjamin, 2006). Therefore, there is a need for a greater understanding of the dynamics between the personal and contextual factors responsible for students' creative performance in the classroom. Like it or not, teachers serve as the metronome in the classroom. The meter and behavior established by them set the patterns and establish the models for students' behavior as individuals and as a group. As a result, there is a need to identify the role of teacher leadership behaviors for students' creativity. Specifically, in the education arena, our knowledge of the role of leadership in the creative process remains limited. The importance of the identification of factors that amplify or stifle students' creative behaviors is to facilitating the structure of classroom environments which is conducive to creativity (Shalley, 1995).

The purpose of this article is to propose possible approaches to facilitate creativity in the classroom, especially with the emphasis on leadership perspective. First, the definition of creativity is discussed. Then based on the literature, several strategies and ideas of promoting creativity are reviewed. Next, a possible model is proposed, including knowledge, creative thinking, motivation and self-efficacy, goal setting and work group, transformational leadership, and supportive leadership. With each component, several propositions are also provided. Finally, the implication of this model is described.

Creativity Defined

People often use the concept of creativity and innovation in an interchangeable way; "others view them as symbiotically related phenomena necessary for the development of new systems, products, and technologies" (Ford, 1996, p. 1112). Furthermore, Ford (1996) contended "a potentially more productive stance is to consider the role creativity plays across levels of analysis and different phases of innovation process" (p. 1113). In short, "creativity is a prerequisite of innovation" (Ohly, Kase, & Skerlavaj, 2010, p. 42).

Creativity is a process which transforms novel ideas into useful products, as an interplay between individuals and contexts (Hunter, Bedell, & Mumford, 2007; Oldham & Cummings, 1996; Woodman, Sawyer, & Griffin, 1993).

In the same vein, this definition of creativity is also associated with four potential research paradigms: the creative person, the cognitive processes of creativity, environment issues to shape or inhibit creativity, and the product of creative performance (Batey & Furnham, 2006).

The Characteristics of Creativity

In creativity literature, various and considerable efforts have contributed to the knowledge of creativity from the perspective of cognitive (e.g., Diakidoy & Kanari, 1999), personality (e.g., Helson, Roberts, & Agronick, 1995), humanistic (e.g., Gardner, 1993), social (e.g., Shalley, Gilson, & Blum, 2000), environmental (e.g., Niu & Sternberg, 2003), psychology (e.g. Amabile, 1996), and neurobiology (e.g., Mumford & Caughron, 2007). Because of the diverse frameworks of each approach, the results of this phenomenon cause conceptual and empirical fragmentation. Against this backdrop, however, a substantial number of creativity scholars have contributed to a repertoire of theoretical frameworks, which delineates creative achievement under the influence of possible variables, including cognitive ability (e.g., HyounSook & Jin Nam, 2009), personality factors (e.g., Kim, Hon, & Crant, 2009), cognitive style (e.g., James & Asmus, 2000), motivation (e.g., Amabile, 1983), knowledge (e.g., Baer, 2003), environment (e.g., Oldham & Cummings, 1996), and the contextual influences (e.g., Woodman et al., 1993).

Promote Creativity in Classrooms

A number of studies have documented the efforts of educators to bring creativity into their classrooms (Ng & Smith, 2004; Petocz, Reid, & Taylor, 2009; Runco & Johnson, 2002). Creativity researchers have justified that creativity can be learned and taught through proper training programs with educators' conscious contributions and developing a creativity friendly environment (Davis, 2006;Saracho, 2002). In line with this notion, some supporters suggest creative thinking should blend into the curricula, and with a more pluralistic approach will assist students to increase the quantity and quality of ideas (Lau, Ng, & Lee, 2009; Puccio & Keller-Mathers, 2007).

Bleakley (2004) described ten different lenses of creativity that help to inform teaching, learning, and curriculum of creativity in higher education: (a) creativity as an ordering process, (b) creativity as rhythm and cycle, (c) creativity as originality and spontaneity, (d) creativity as the irrational, (e) creativity as problem solving, (f) creativity as problem stating, (g) creativity as inspiration, (h) creativity as serendipity, (i) creativity as resistance to the uncreative, and (j) creativity as withdrawal and absence (pp. 476-473).

Halpin, Halpin, and Torrance (1973) noted the important role of creative thinking abilities in educational achievement and claimed that "one of the most fundamental creative needs is to be different, to be an individual, to be oneself" (p. 273).Torrance and Harmon (1961) argued that one of the reasons educators fail to promote creativity in classrooms is because they cannot "think creatively or imaginatively about course materials" (p. 207). As a result, Hallman (1967) maintained that creative teaching is the best approach to building creative behaviors of students. He provided some suggestions to the creative teacher: self-initiated learning, a non-authoritarian learning environment, saturating students with information, imagery, and meanings, creative thought process, deferring judgment, promoting intellectual flexibility, encouraging self-evaluation, asking open-ended questions, providing opportunities of craftsmanship, facing situations of frustration and failure, and considering problems as wholes.

Bull, Montgomery, and Baloche (1995) reviewed college level creativity courses and identified four general approaches including (a) cognitive approaches, (b) personality approaches, (c) motivational approaches, and (d) social interactional approaches. Besides these differences in meta-theoretical models, Scott, Leritz, and Mumford (2004) also pointed out two other differences that influence the content and structure of creativity training. First, the theoretical models that shape training interventions bear some aspect of creativity, such as lateral thinking, productive thinking, and creative problem solving. Another noteworthy difference is between general techniques across different situations and domain specific training for special purposes.

Sternberg (2010) pointed out "if we want to encourage creativity, we need to promote the creativity habit" (p. 397). As a result, he suggested teachers should role model creativity. Beghetto (2006) underscored the key role teachers play because "students' experiences within classrooms are greatly influenced by their perceptions of how teachers relate to them" (p. 449).

The results of the study showed a positive relationship between students' motivational beliefs and teachers' feedback on creative performance, and Beghetto (2006) concluded teachers should provide a supportive environment where students are willing to take risks for the sake of creative expression.

Viewing creativity as a habit, Sternberg (2007) observed that creative people habitually look for ways to see problems that others do not look for, take risks that others are afraid to take, have the courage to defy the crowd and to stand up for their own beliefs, and seek to overcome obstacles and challenges to their views that others give in to, among other things (p. 4). He then provided 12 keys for promoting the creativity habit in children: redefine problems, question and analyze assumptions, do not assume that creative ideas sell themselves, encourage idea generation, recognize that knowledge is a double-edged sword and act accordingly, encourage children to identify and surmount obstacles, encourage sensible risk-taking, encourage tolerance of ambiguity, help children build self-efficacy, help children find what they love to do, teach children the importance of delaying gratification, and provide an environment that fosters creativity (pp. 8-20).

Possible Avenues to Facilitate Creativity in the Classroom

Teachers have important resources at their disposal to facilitate students' learning experience and unleash their potential in the classroom. A number of researchers argued that the implementation of concepts of organizational leadership in the classroom has a positive effect on students' performance (Bolkan & Goodboy, 2009). Therefore, this article proposes possible avenues in tandem with leadership behaviors in the school context to spark a creative light in students' minds.

Knowledge Construction

Dominant-relevant skills, such as knowledge, intelligence, and expertise, are an essential component that affects individuals with creative potential. These skills are determined by antecedent conditions (e.g., in-born talent), experience, and education (Amabile, 1998; Hennessey & Amabile, 1987). Research findings (Conti, Coon, & Amabile, 1996) evidenced general skills have a positive influence on creativity across tasks.

In a review by Hunter, Bedell, Hunsicker, Mumford, and Ligon (2008), they discovered three constructs of knowledge that are related to implementation of creativity, including schematic knowledge (analogical ability and conceptual combination), associational knowledge (probabilistic linkages through network activation), and case-based knowledge (contextual guidance). Hunter et al. (2008) found different knowledge structures (schema, associations, cases, and blend) were involved in the creative process. More specifically, under the condition of idea generation, associational or schematic knowledge was more favorable, whereas under consideration of quality and originality of problem solutions, case-based knowledge took the lead. In another study along this line, Baughman and Mumford (1995) found that a combination and reorganization of knowledge structures played an important role in idea generation.

Creative Thinking

The test regarding an individual creative enterprise is judged by either by the quality of alternative solutions or by their quality and originality. Accordingly, creativity tests successfully demonstrated both creative thinking skills and generating various solutions (Ford, 1996; Woodman et al., 1993).

A large number of empirical studies utilized the divergent thinking tests, including fluency, flexibility, elaboration, and originality, as a predictor of creative achievement (Barron & Harrington, 1981; Guilford, 1967). For instance, Vincent, Decker, and Mumford (2002) found divergent thinking employed unique upshots on creative problem solving. Divergent thinking, therefore, becomes a *sine qua non* of creativity training programs (Scott et al., 2004). More centrally, the evidence compiled by Scott et al. (2004) indicated that the effectiveness of creativity training lies in the use of a cognitive approach to creativity for a variety of people.

Problem-solving is another imperative ingredient of creative thought. Process models of creative problem-solving have some core operations: problem identification, collecting data, filtering information, conceptual combination, generating thought, idea appraisal, and implementation (reviewed by Baughman & Mumford, 1995; Scott et al., 2004). This concept is also a basis for the development of creative training techniques (Scott et al., 2004). Creative problem techniques are common practices of creativity for laypeople in view of their accessibility and application (DiLiello & Houghton, 2006).

Sternberg (2003) maintained that teaching creative thinking could benefit both students' academic performance. More specifically, Sternberg (2003, 2005) provided suggestions toward creative thinking: redefine problems, analyze solutions, defy the crowd, take risks, open minds, tolerate uncertainty, and be patient. In their work, McWilliam and Dawson (2008) defined creativity as a developable skill with appropriate pedagogical practices.

P1a. The occurrence of creativity is not spontaneous and random but a synergy of related knowledge and skills drawing from the reservoir of students' creativity potential. Therefore, teachers should develop the ability to identify the creative potential in students, to recognize creative outcomes, and to encourage the cognitive processes related to creativity.

P1b. For the sake of development of creativity, teachers should utilize creativity-fostering pedagogy, including a set of skills: pattern recognition, connectivity to diversity, synthesis training, a schema of problem-solving, and divergent thinking exercises.

Motivation and Self-Efficacy

A strong body of work supports the idea that motivation is a core factor in influencing creativity (Amabile, 1988, 1996; Hennessey, 2003; Tierney, Farmer, & Graen, 1999; Woodman et al., 1993). Research evidence indicates intrinsic and extrinsic motivation to some extent function as cognitive bases of individual creative performance; this psychological phenomenon is positively related to self-efficacy that could promote creativity (Amabile, 1983; Beghetto, 2006; Hennessey & Amabile, 1987; Kasof, Chuansheng, Himsel, & Greenberger, 2007). The strong image of positive capability confidence is very favorable for people's creativity (Ford, 1996). The study (Beghetto, 2006) showed the positive association between students' motivational beliefs as well as teachers' feedback on creative performance and their creative self-efficacy. Moreover, research findings provided by Prabhu, Sutton, and Sauser (2008) revealed that intrinsic motivation completely mediated the relationship between creativity and self-efficacy, whereas extrinsic motivation partially moderated this connection.

The traditional paradigm employs rewards as interventions to determine the association between motivation and creativity (Amabile, 1983, 1985). The research findings demonstrate that under some conditions, the expectation of reward could increase levels of extrinsic motivation, which in turn enhances creative production (reviewed by Hennessey, 2003). For instance, Kasof and colleagues (2007) discovered that extrinsic motivation with self-direction value promoted creative behavior. Importantly, the creative process is requiring synergistic interaction between intrinsic and extrinsic motivation.

P2a. Teachers should develop a learning orientation that motivates students to advance creative self-efficacy to engage in creative activities. Taken together, the feelings of enhanced capacities or competencies are likely in turn to heighten creative effects.

P2b. Teachers can reap the benefits of students' creativity by the careful use of a reward and evaluation system, providing ample opportunities for free play with tasks, making intrinsic motivation as a conscious factor, focusing on the intrinsically enjoyable aspects of activities, and training students as active and independent learners.

Goal Setting and Work Group

Goal setting is a useful strategy to overcome the reluctance of involvement in creative attempts, thanks to inertia and attachment to one's comfort zone (Mayfield & Mayfield, 2008). A person's motivation for pursuing creativity is moderated by relevant expectations, emotions, and goals. Behavior episodes related to creativity are elicited from intentional or attentional goals (Ford, 1996). A great deal of laboratory and field research support that goal setting augments productivity with individuals accepting specific difficult goals and receiving feedback regarding their acts (reviewed by Shalley, 1995). However, the appropriate scale of goals should be taken into consideration for the sake of time and resources (Amabile, 1998). Research on the effects of goals on creativity implied that objectives focusing on creativity lead to a manner of exploring different approaches, which in turn expedite the appearance of novel ideas, in particular, under the condition of collaborative team settings. More specifically, goals in creative work should be framed as an informative directional reference due to the nature (ambiguity and multiple standards) of creativity (Mumford, 2000). The expectation of goals also stimulates communication and cooperation and finally with critical discussions to construct a synthesis of different views, which in turn is associated with innovation (Hülsheger, Anderson, & Salgado, 2009)

Group activity is the gestalt of all members' creativity inputs. Especially, "[a] group provides an arena in which members can use others as resources to augment their own knowledge" (Woodman et al., 1993, p.303). The diversity of team members with regard to knowledge and experience also contributes to enhancing innovation (Mumford, 2000). Another advantage of creativity through work groups is shared goals and commitments together with brainstorming for creative problem-solving. With the groupthink collaboration of multiple individuals and appropriate resources, it is easier for problem-solving from diverse perspectives. Research has indicated individuals recognize brainstorming in groups to be more effective (reviewed by Kurtzberg & Amabile, 2001). Additionally, Hirst, van Knippenberg, and Zhou (2009) found that a cross-level analysis of person-in-situation interplay corroborated the hypothesis that team-learning behavior provokes and catalyzes individual learning and in turn affects creativity. That is, the team context for learning has moderating effects on creative performance.

     P3a.   Set up the feasible creative goals to buffer students from extraneous demands and disturbing motivation. Tailor creative objectives to creative input because of reinforcement of expectations contributing to the creative output.

     P3b.   Team up students with diverse perspectives for collaborative creative learning and legitimate creativity-related goals. Build positive, creativity-facilitating receptivity and competency beliefs.

Transformational Leadership

The importance of leader behaviors in the classroom is that teachers see themselves differently and thus behave differently owing to expanding their leadership roles (Searby & Shaddix, 2008). Bass (1985) conceptualized transformational leadership with four components: intellectual stimulation, individualized consideration, charisma, and inspirational motivation. As a result, it is reasonable to believe transformational leadership is associated with followers' creativity. A number of studies confirmed that transformational leadership has a positive tendency toward enhancing creativity in either an individual level or group conditions (Gong, Huang, & Farh, 2009; Jung, 2000; Shin & Zhou, 2003; Sosik, Kahai, &Avolio, 1998; UiHaq et al., 2010). In line with the passion shared by leaders and followers, a transformational leader has the privilege of subordinates' intrinsic motivation (Jung, 2000), which is evidenced as one of the key ingredients of creativity (Amabile, 1998). Intellectual stimulation is likely to encourage creativity by setting the expectation and providing role models for followers. Furthermore, individual consideration will expand the reservoir of knowledge via including others' ideas and views, and in turn could catalyze the process of idea generation (Gong et al., 2009; Sosik et al., 1998).

The merit of transformational leaders is that "[they] delegate, transmit courage, inspire collaborators and support development" (Rui, Emerson, & Luis, 2010, p. 10). One of the significant credits of exerting the philosophy of transformational leadership is the outperformance of followers, which is partly on account of their commitment, intrinsic motivation, or the sense of vision that prompts them to surpass expectations (Howell & Avolio, 1993). Above all, Bolkan and Goodboy (2009) observed that the implementation of transformational leadership skills produced a positive picture of student behavior, learning outcomes, and teacher credibility.

     P4a.   Teachers should take advantage of the concept of transformational leadership through encouragement, emotional support, confidence, and consideration to maintain and form creative actions of students.

     P4b.   The commitment of transformational leadership in students' activities shapes their intentions to engage in creative work processes, via mutual trust, coaching, guiding, and inspiring, which ultimately produces high quality creative products.

Supportive Leadership

In an organizational context, the suffocation of creative ideas is caused by devaluation and disregard of management (Cangemi & Miller, 2007). Accordingly, the supervisory style is potentially viewed as a predicator of employee creativity (Oldham & Cummings, 1996). Based on the view of cognition, "creative work is a cognitively, demanding, resource intensive activity" (Mumford, Hunter, & Byrne, 2009, p. 355). Additionally, research displayed that the psychological process has a potential influence on creative performance. Supportive leadership especially has an indirect in impacting creativity by developing a trust relationship, increasing the perceptions of psychological safety, providing constructive feedback, promoting self-determination, and encouraging risk taking (Cummings & Oldham, 1997; HyounSook & Jin Nam, 2009; Oldham & Cummings, 1996).

A culture supportive of creativity is expected to spread attitudes of creative requirements among employees (Unsworth, Wall, & Carter, 2005). In support of this, Kim, Hon, and Deog-Ro (2010) asserted that supportive leaders and creativity requirements serve as situational cues to facilitate proactive individuals to initiate creative activities. Therefore, leaders' support of creativity can maximize the perception of creativity being valued and minimize the potential risk related to creative work. Similarly, students in such an environment conceivably feel comfortable to generate unconventional and creative solutions to daily problems. Teachers need to support an understanding and appreciation of the maverick that is willing to take unpopular positions, who know when to reject the conventional approach, and who takes reasonable risks.

P5a.   Teachers should build a psychological safe zone that encourages freedom, creativity, risks taking, and a breaking-out-of-the-box attitude in order to maximize creative accomplishments.

P5b.   On the basis of leaders' support, teachers can persuade students that they are capable of producing creative outcomes and are satisfied with their achievements.

P5c.   Provide constructive and friendly feedback as a strong support for students, thereby showing appreciation and respect for their efforts.

Discussion

"Fundamental to living in the conceptual age will be the use of creativity" (Warner & Myers, 2009, p. 29). As a result, one of the key responsibilities of teachers is to plant the creativity seed in students' minds. Above all, as Sternberg (2003) noted, "creativity is not just a matter of thinking in a certain way, but rather it is an attitude toward life" (p. 333). The ultimate goal of education is to help students develop their capabilities and in turn maximize their potential into practical use in everyday life.

According to Westby and Dawson's (1995) research, ideal students in teachers' minds are opposite to the behavior pattern of the creative prototype. It suggested that teachers might build a filtering system to welcome only some types of students instead of students with creative potential. Most importantly, the teachers' perception of creativity is different from their action in a real classroom. In reality, teachers devalue creative development in students, albeit their self-reports support creativity. Thus, teachers should resist the temptation to dwell on authority and top-down management in the classroom at the expense of creative development.

As this theoretical model suggested, appropriate and adequate teacher leadership behaviors could in fact facilitate students' creative performance. The strategies capture five potential components that could enhance creativity, including knowledge construction and creative thinking, motivation and self-efficacy, goal setting and work group, transformational leadership style, and supportive leadership. It is recommended that teachers could consider these strategies to cultivate a creativity-oriented environment for students' creative growth. More importantly, teachers have distinctive opportunities and abilities to introduce techniques that nurture creativity. Thus, these recommendations and practices are appropriately applied, when employed in a school context where creativity is the ultimate goal.

When examining those propositions, they result in three general conclusions. First, some traditional teaching approaches should be adjusted or fundamentally changed. For example, is an analytical skill suitable for every class scenario? Second, the education system should provide the kind of training that promotes creativity development for both teachers and students. Finally, teachers should encourage diversity in the classroom allowing creative children to express their potential. In fact, as Niu and Sterberg (2003) recommended, teachers should take the lead to promptly encourage students to challenge the norms, be imaginative thinkers, and be more involved in creative self-exploratory activities.

One key implication of these interventions is that to successfully manage students to bring about creativity, some efforts and support must go beyond conventional thoughts. For instance, effective leadership in the classroom appears to have a decisive influence on creative actions. In developing strategies to promote creativity, however, educators frequently ignore the impact teachers and their management practices have on creativity development. This straightforward observation implies that effective teachers' interventions may call for a more indirect path focusing on development of the leadership skills needed to manage creative students.

Conclusion

Given the evidence available at this juncture, one clear implication stemming from this review is that teachers do have a substantial impact on students' creative process. Teachers, in fact, stand in a unique position to boost students' creative actions by reason of a tendency to recognize what a student needs to be more creative. However, it should be noted that no model can capture all the facets that kindle the complex process of creativity. For example, teacher behavior is still embedded in a school context, which has a potential impact on the enhancement of creativity. Therefore, teachers' efforts should be nurtured by all stakeholders who fully support initiatives to increase creativity. Policy makers, principals, administrations, and parents are all sharing responsibility for portraying the landscape of a creativity paradise.

In conclusion, creative capital serves as an engine of students' growth and school dynamism (McWilliam & Dawson, 2008). In fact, creativity is found in many college and university mission statements as an important institutional commitment (Welkener, 2004). This article has contributed the preliminary framework for investigations that diffuse students' creative sparkles through leadership interventions.

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