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Promoting Creativity in Education – From Policy to Practice: An Australian Perspective

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ABSTRACT
In the 21st century, our global community is changing to increasingly value creativity and innovation as driving forces in our lives. This paper will investigate how educators need to move beyond the rhetoric to effective practices for teaching and fostering creativity. First, it will describe the nature of creativity at different levels, with a focus on personal and everyday creativity. It will then provide a brief snapshot of creativity in education through the lens of new policies and initiatives in Queensland, Australia. Next it will review two significant areas related to enriching and enhancing students’ creative engagement and production: 1) influential social and environmental factors; and 2) creative self-efficacy. Finally, this paper will propose that to effectively promote student creativity in schools, we need to not only emphasise policy, but also focus on establishing a shared discourse about the nature of creativity, and researching and implementing effective practices for supporting and fostering creativity. This paper has implications for educational policy, practice and teacher training that are applicable internationally.

Author Keywords
Australia, creativity, education, policy, school, self-efficacy, student, teacher

ACM Keywords
K.3.0 [Computers and Education]: General

General Terms
Theory

INTRODUCTION
Emerson’s vision of a creative economy fuelling magnificence appears especially true in today’s society. It could be further added that the fuel of a competitive and sustainable creative economy is everyday creativity. Creativity is no longer on the periphery or synonymous with genius, nor is it reserved for the arts. It might have previously been “a luxury for the few, but by now it is a necessity for all” [18, p. xviii]. It is therefore important to look beyond eminent creativity to explore the everyday and personal creativity of ordinary people. To stay competitive in the 21st century, governments around the world are seeking everyday people who can think creatively and be innovative [25]. There is recognition of the increasing economic value of people’s creative ideas in a multi-mediated society, and in workplaces where many processes and jobs are becoming automated. Thus, creativity is for all.

In response to its potential economic and societal contributions, policymakers in Australia (and elsewhere) have added creativity to the educational agenda. In a system where the curriculum is already overcrowded and standardised testing is influential in policy and practice, introducing creativity as a priority requires significant changes in curricula, teaching and learning. In education, the focus on creativity is often at the policy level rather than in practice. This theoretical paper bridges the policy-practice divide with attention to what is needed to embed creativity within the classroom. It commences with a discussion of the nature of everyday creativity and the importance of such discussions for shared understandings. This is followed by a summary of how government agendas in Queensland, Australia, are promoting creativity. It then reviews major influences on creativity, including social and environmental conditions and creative self-efficacy. Finally, this paper highlights key areas that need attention to advance the creative agenda in schools through three building blocks: (1) a shared discourse of creativity, (2) informed policies, and (3) effective, evidence-based educational practices for encouraging and enhancing students’ creativity.
The continuum of mini-c through to Big-C can also be viewed as acknowledging the development of knowledge or expertise in creativity. That is, to be highly creative, one requirement is substantial content knowledge relevant to the particular topic or area. From the perspective of everyday creativity, people with varied levels of knowledge can be creative; however, their creative products will show deep commensurate with their knowledge and experience [12, 17]. Furthermore, creativity can result through “collaborative and social shared expertise” of a group of novices, removing the requirement for an individual expert to possess all the knowledge and skills [46, p. 73]. For students, everyday creativity might be accomplished independently in their own area of expertise, or students might work collaboratively, sharing their knowledge and skills to produce something they could not achieve individually.

Everyone has the potential to be creative and everyone can be creative at the mini-c or P-Creativity level. It is no longer believed that creativity is exclusive to the gifted; however, it is not prudent to be completely inclusive and argue that everyone is creative beyond the personal creativity level [35]. Overly inclusive views have lead to the emergence of self-help books and seminars that claim to be able to teach anyone to be creative in one short course [35]. Creativity is a complex capacity that cannot be reduced to a series of simple steps or techniques that people can apply to find instant creative ideas. Moreover, such efforts assume that creativity is a general ability that we can learn and apply to any domain. This is inconsistent with dominant research arguing that creativity incorporates some general abilities, but also largely requires domain-specific and task-specific knowledge and skills [e.g., 2, 33, 53]. The domain-specificity element of creativity implies that creative thinking skills need to be fostered and learned in each domain in which creative production is expected. Creative thinking skills may not necessarily transfer from one context to another. This has implications for how creativity is fostered in schools, and therefore is pertinent to an educational discussion about creativity.

This section highlighted some key areas concerning the nature of creativity that are useful to consider for developing a shared understanding in education. If all stakeholders (e.g., policymakers, school administrators, teachers, students, and parents) have a shared definition of creativity and an understanding that a goal of education is development of mini-c and little-c creativity, everyone can work towards this same goal.

AN AUSTRALIAN PERSPECTIVE

This paper uses Queensland, Australia, as an illustration of how recognition of creativity’s importance can be embedded in government policies and initiatives. This section presents key examples from Queensland, including: the 2009 Year of Creativity initiative, the Smart
prove that faster rate [43]. No empirical research was presented to other G7 nations, the Queensland economy has grown at a major factor. The government’s priority is now to attract bright, creative minds to Queensland, particularly in the areas of health, science, technology, and design [44].

Another emphasis in Smart State funding is the ‘Creative Industries’. In Queensland, the Creative Industries are divided into six clusters: 1) Music composition and production; 2) Film, Television and Entertainment Software; 3) Performing Arts; 4) Writing, Publishing and Print Media; 5) Advertising, Graphic Design and Marketing; and 6) Architecture, Visual Arts and Design [42]. The Creative Industries are seen as “big business”, a key driver in Queensland’s economy that will assist the state to become competitive in our global climate [42].

Queensland’s 2004 economic growth strategy for Creative Industries is featured on the United Nations Educational Scientific and Cultural Organisation website as a good model for Creative Industries development [61]. The importance of Creative Industries for Queensland has also been recognised by Queensland University of Technology, which has a Faculty of Creative Industries and hosts the Australian Research Council Centre of Excellence for Creative Industries and Innovation [45].

The use of the government’s expression – Smart State – has received criticism. One reason for this is the 2008 national testing results for students in Years 3 and 5. Compared to other Australian states and territories, Queensland had the second highest percentage of students working below the national minimum standards in most areas of literacy and numeracy [37]. However, government terminology or branding is not the focus here; rather, it is about providing an example of policies focusing on creativity.

Educational Initiative: Queensland Academies

Within the education system, one initiative to attract and encourage bright, creative minds to work together is the Queensland Academies. There are three of these selective, government-run high schools for students in years ten to twelve: Queensland Academy for Creative Industries, Queensland Academy for Health Sciences, and Queensland Academy for Science, Mathematics and Technology [19]. The three specialist areas of the schools match focus funding areas in the Smart State agenda. The Academies offer selected high achieving and talented students the opportunity to pursue their interest and talent areas while completing the International Baccalaureate Diploma Program, an internationally recognised pre-university qualification [19]. The schools’ target population is students who demonstrate high academic ability and potential in one of the schools’ specialist areas. Selective schools such as these can offer a valuable environment for ‘like-minded’ adolescents to work collaboratively to develop their capabilities.

The Queensland Academies offer special enrichment programs and links with university and industry partners that aim to provide students with opportunities to engage authentically and creatively in their specialty areas. For example, the Queensland Academy for Creative Industries is linked with Queensland University of Technology, the Queensland Academy for Science, Mathematics and Technology is linked with University of Queensland, and the Queensland Academy for Health Sciences is linked with Griffith University [19].

Queensland’s current policies, while not sufficient in themselves for developing everyday creativity, are a starting point. They are presented as examples of efforts being made in education and industry to emphasise creativity and recognise its growing significance.
ENHANCING EVERYDAY CREATIVITY: SOCIAL AND ENVIRONMENTAL INFLUENCES

Promoting the development of creative thinking and production skills in schools assumes that creativity is teachable and learnable. Creativity (and genius) was once thought to be an entirely innate, unteachable ability [26]. This view has since developed to recognise the role of genes in determining individual differences in creative potential, but also acknowledge the potential for growth and development. It is now a widely accepted assertion that creative abilities can be learned and enhanced [e.g., 21, 24, 54]. However, while most people want to encourage their own and others' creativity, they are often unsure how to do this [52]. Creative abilities can be developed, but there is no agreed formula or set of instructions for doing so. Encouraging creativity requires one to be creative [52].

Schools need to become more relevant to the needs of students in our current society, and this includes emphasising the development of creativity [35, 47]. In order to do this effectively, practices for teaching students to be creative should be based on empirical research of factors that influence creativity. Unfortunately, creativity is argued to be often suppressed and sometimes even destroyed completely in schools [48, 49]. Thus, there is the dilemma that the very institution that is responsible for developing creativity can also destroy it.

Table 1. Opinions about Optimal Environmental Conditions for Creativity

<table>
<thead>
<tr>
<th>Environmental conditions</th>
<th>Opposing views</th>
</tr>
</thead>
<tbody>
<tr>
<td>General environmental climate</td>
<td>‘Bull-market’ perspective: Creativity will only thrive in supportive, nurturing environments. ‘Bear-market’ perspective: Creativity can thrive, and is stimulated by, harsh and repressive environments.</td>
</tr>
<tr>
<td>Task constraints</td>
<td>People are most creative without any limits. Too many limits will inhibit creativity. Creativity requires limits and constraints. With no constraints, people are unable to complete a task.</td>
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</tr>
<tr>
<td>Evaluation</td>
<td>Evaluations are helpful in creative development and production. People produce more creative work if they are told how it will be evaluated than if they are not told. Being observed and evaluated interferes with creativity. People produce less creative work if they know it will be evaluated.</td>
</tr>
<tr>
<td>Competition</td>
<td>Competitions and incentives can encourage more creative work. When competition and comparison is de-emphasised, people are more creative.</td>
</tr>
<tr>
<td>Cooperation</td>
<td>Cooperation encourages creativity through brainstorming and building on one another’s ideas, provided that criticism is deferred until the end of the process. Cooperation can inhibit creative work when there is pressure to conform to group norms and unorthodox ideas are ridiculed or ignored. People may suppress their creativity in order to please the group.</td>
</tr>
<tr>
<td>Role models</td>
<td>The creative individuals in one generation are needed as role models to ensure more creative individuals in the next generation. Role modelling can inhibit individuals’ creativity if it encourages dependency on, and imitation of, the role models.</td>
</tr>
</tbody>
</table>

Note. This table summarises a number of key points made by Sternberg and Lubart [56] about types of environments and environmental variables that influence creativity.

General Environmental Influences

The environment is a significant consideration for encouraging and enhancing everyday creativity. Table 1 outlines opposing opinions about key environmental conditions that best nurture development of creative abilities and production of creative ideas. These are applicable to school and organisational climates.

An alternative is to take a more balanced approach and recognise that a combination of these factors could be most appropriate. The following list presents how opposing views of the six environmental conditions in Table 1 could be balanced [56]:

1. General environmental climate: The environment required for creativity will depend on the individual and their domain of interest; however, generally a nurturing environment that provides some obstacles and challenges is best for creative development.

2. Task constraints: The amount and nature of constraints and their influence will depend on the task, the people involved, and their age. People are creative in novel tasks, but constraints are useful when tasks are particularly novel and those involved have limited prior knowledge/skills to apply.

3. Evaluation: Evaluations perceived as a threat inhibit creativity. However, in cases where products must be evaluated, people will produce better work if they know the criteria for the evaluation. Self-evaluation can also facilitate creative development and production.
4. Competition: Competition can increase arousal and facilitate creativity if the task is not too difficult and the person is initially not very motivated. Competition can inhibit creativity if the person is already aroused and motivated, or if the task is difficult and the person is already feeling pressure and anxiety to perform.

5. Cooperation: Enthusiastic cooperation will not necessarily lead to more creative ideas. It depends on the vested interests of each member and who is involved in evaluating the ideas. However, given that ideas and products are likely to be seen and reviewed by different groups, it can be useful to share ideas and get feedback on how they can be improved.

6. Role models: Creativity can be enhanced when individuals have role models to watch and emulate during their creative development, and when the role models encourage independent thinking and production rather than imitation.

Social and Environmental Influences at School

It is generally agreed that the school environment can influence creative development [11]. Key social and environmental components that affect creativity in schools include, but are not limited to: (1) the classroom environment, (2) teachers, and (3) peers.

First, in relation to the classroom environment, open or informal classroom situations that provide some freedom and choice in learning are usually found to be more supportive of creative development than traditional classrooms [27, 28, 29, 39]. One reason for this is that a traditional classroom is unlikely to provide an appropriate person-environment fit given the psychological characteristics commonly observed in creative children and adolescents (e.g., being unconventional and individualistic).

Second, teachers can have a significant influence on students’ levels of creativity. Teachers can better promote creativity when they move from being a Sage-on-the-Stage or a Guide-on-the-Side to being a Meddler-in-the-Middle who encourages students to be producers (rather than passive consumers) of knowledge, and who is engaged in learning, experimenting and critically evaluating with students [34, 35]. Teachers who may better enhance student creativity are generally thought to: have an accepting, open and flexible manner [30]; value close interpersonal relationships with students and view students as capable of self-discipline [30]; and display characteristics of a creative personality [22]. A study of the influence of university professors on students’ creativity also revealed that teachers who treated students as individuals, encouraged independence, acted as creative role models, welcomed unorthodox views, allowed students choice in their learning, rewarded students’ originality and creativity, and showed enthusiasm, better facilitated creativity in their students [15]. It is likely that many of these characteristics would similarly apply to school teachers.

Third, school peers are also influential, particularly after the third grade when the ‘fourth grade slump’ [60] in creativity is observed. This is thought to be the result of increased peer pressure to conform to group norms beginning at this age [60], which can inhibit students’ willingness to take risks and their confidence in openly displaying unconventional ideas and behaviours.

These are just some of the key social and environmental influences on creativity that are relevant to education. More studies are needed to explore factors that positively and negatively affect creative engagement, development and production, and how these vary depending on the type of student, domain of learning, and educational context. This research can be used as a basis for effective practices in promoting student creativity.

ENHANCING EVERYDAY CREATIVITY: CREATIVE SELF-EFFICACY

In addition to social and environmental influences, another important factor relevant to a person’s capacity to be creative is their creative self-efficacy. Creative self-efficacy is an emerging area of research that has thus far received minimal attention, particularly in the field of education.

Definition of Self-Efficacy

Self-efficacy is one among many aspects of self that comprise one’s global self-concept [51]. The most influential research in the study of self-efficacy comes from Bandura’s social cognitive theory, in which he defines it as “people’s judgments of their capabilities to organise and execute courses of action required to attain designated types of performances” [6, p. 391]. The focus is on beliefs and confidence about what one can do in a given situation with the skills one possesses, and is not an objective measure of what skills one does or does not have [5, 6].

Self-efficacy is the central mechanism of personal agency [4]. It regulates action through its significant influence on various processes, including: cognitive processes (e.g., students who are confident in their problem-solving abilities will act more efficiently in making complex decisions); motivational processes (e.g., students with high self-efficacy will exert greater effort and persevere longer); affective processes (e.g., students with high self-efficacy become less anxious and stressed in learning that involves taking risks); and selection processes (e.g., students with high self-efficacy are willing to undertake more challenges because they feel confident in their capabilities) [4]. According to Bandura’s theory, efficacy beliefs are multidimensional and differ in three ways: (1) level – perceived capability depends on the task’s level of difficulty; (2) generality – people can feel efficacious in a variety of situations, or only in particular circumstances;
and (3) strength – self-efficacy beliefs range from weak to strong, with stronger beliefs more established while weaker ones are more unstable and can be easily disconfirmed [5, 6]. Therefore, how efficacy beliefs regulate performance through influences on cognitive, motivation, affective, and selection processes will depend on the level, generality, and strength of one’s self-efficacy.

Based on Bandura’s general definition of self-efficacy, the notion of ‘creative self-efficacy’ emerged. This more recent construct, defined as self-judgments about one’s ability to be creative, was developed and validated by Tierney and Farmer [58]. Creative ability alone is not sufficient for creative performance [8, 31]. Creative self-efficacy is now recognised as instrumental in developing and demonstrating creativity.

**Relationships between Creative Self-Efficacy and Creative Performance**

To date, there are few studies of creative self-efficacy and most were conducted with adults [e.g., 16, 31, 58, 59]. In relation to school education, a study of middle and secondary school students indicated that the strongest predictor of creative self-efficacy was students’ reception of creativity-related feedback from teachers [8]. In addition, creative self-efficacy was positively associated with students holding mastery-orientation beliefs. Interestingly, high levels of creative self-efficacy in students were also positively associated with a performance-approach orientation and with feeling that teachers have given up on them, and negatively associated with feeling that teachers listen to them. Beghetto suggested that these dissatisfying experiences (feeling unheard and given up on) can motivate students, who may use a performance-approach orientation to demonstrate their ability by outperforming peers [8].

Although there are limited studies of the relationship between creative self-efficacy and creative performance, there is empirical research confirming a positive association between general or academic self-efficacy and school performance [e.g., 6, 13, 62, 63, 64]. There is also evidence that the relationship between self-efficacy and achievement can be mediated by self-efficacy’s interaction with goal-setting [14, 64]. Academic and creative self-efficacy beliefs are both based on the same social cognitive theory [5, 6] and they have a similar structure. Therefore, the strong relationships between academic self-efficacy and school performance provide a rationale for further exploration of the relationship between creative self-efficacy and creative performance.

**Nurturing Self-Efficacy**

A key characteristic of developing confidence in one’s ability is being motivated by prior success. Mastery experiences have the most significant influence on development of self-efficacy [3]. Therefore, teachers need to create learning experiences and contexts in which students have the opportunity to succeed in creative tasks. Self-efficacy beliefs are largely domain-specific and context-specific [63]. This means that students require opportunities for mastery of creative thinking in a range of domains/subjects (e.g., a student who has difficulty being creative in mathematical problem-solving might be a creative writer) and situations (e.g., opportunities for cooperative group work as well as individual tasks).

Once students have identified areas of creative strength, a useful practice is teaching them to think meta-cognitively about their creative processes and strategies. It can help students to improve their creative practice and apply these strategies to other tasks, and possibly other domains [32, 38]. This practice raises the question of the domain-generality versus domain-specificity of creativity, which was discussed in the section about the nature of everyday creativity. If creative activities in classrooms focus solely on general strategies and situations, students might be encouraged to flexibly apply strategies across disciplines and to various areas in life, but the creative thinking might remain superficial [40]. If the focus is always on specific domains or tasks, students might overcome the superficiality and go into more depth, but another result could be functional fixedness in students’ thinking [40]. To avoid possible pitfalls of both approaches, classroom learning should promote expertise within domains, as well as the value of flexible thinking and working creatively across domains. It is particularly important not to limit students’ creative experiences to certain domains in learning [7]. This is because interests and abilities of children and adolescents develop with age. By focusing on only one or two domains from the early years, creative potential in other areas may never be realised [7], and strong self-efficacy beliefs may become limited in scope.

An additional approach to nurturing creative self-efficacy is for teachers to explicitly encourage students’ beliefs in their potential to be creative [38]. Social persuasion is a significant factor that can influence the development of self-efficacy [5, 6]. If students do not receive social feedback about being creative, they may lack the confidence to engage in creative tasks. This approach requires teachers to determine students’ implicit theories about creativity, in order to first address any misconceptions [7]. For example, if students believe creativity is synonymous with genius, they are unlikely to believe they have the potential to be creative, even if the teacher encourages them. This further supports the importance of developing a shared understanding of creativity within schools.

Creative self-efficacy is still an emergent field of study. Further research is needed about effective practices for building students’ creative self-efficacy in a range of tasks and domains. Research-based evidence that informs practice would be valuable for teachers and students striving to enhance creativity.
FROM POLICY TO PRACTICE: THE 3 BUILDING BLOCKS

The focus of education is students and their learning. So from an educational perspective, a key aim of creativity research is to determine how to enhance students’ capacity to think and act creatively. I propose that there are three major building blocks to form a solid foundation for creativity in schools. Building Block 1: establishing a shared language about creativity that is understood by, and relevant to, all stakeholders. Building Block 2: recognising and discussing the importance of creativity, and developing informed policy that reflects this. Building Block 3: developing effective practices for encouraging and enhancing student creativity in schools. These three components all inform and support each other, and do not always follow a sequential process. In the context in which I am writing, there is already a large number of government policies and documents published, but some lack a clear and consistent discourse about creativity. This means Building Block 2 was laid before Building Block 1. However, for ease of understanding and implementation, I propose that first it would be better to establish a clear definition of, and common language about, creativity, and then it can be applied to develop consistent policy.

Building Block 1 is developing a clear, consistent definition of creativity that is relevant to schools, and establishing a discourse for talking about creativity within and across domains of learning. This is necessary because people have a wide range of conceptions about creativity. Moreover, the literature and government policies reveal a lack of an explicit, uniform definition of creativity. Often it is used as a synonym for being artistic; sometimes it includes innovations in science and technology. It is also frequently used without distinguishing among the levels of creativity presented earlier in this paper: personal and everyday creativity (which are relevant to school learning) and eminent creativity (which is not). There needs to be a clear understanding and consistent usage of ‘creativity’, with a focus in education on personal and everyday creativity. It is not enough to know that creativity is important and have a desire to promote it. All stakeholders, including governments, education systems, and schools (staff, students, parents), need to have a shared understanding of creativity and a language to talk about it.

Building Block 2 is developing informed policy through opening the dialogue about this complex construct and its importance for individuals and society. For action to occur, discussion must filter into political agendas and inform government policy documents. Queensland, like many other contexts, has made this first step. Examples of how this was done were presented earlier in the paper.

Building Block 3 is moving beyond discourse and policy to effective educational practice. If creativity is important and should be encouraged and enhanced in schools, how can teachers teach it and how can students learn it? I would argue that one part of the solution is to provide teachers with strategies and mechanisms, which are based on empirical research, that promote and enhance everyday creativity. This is not to say that there is a one-size-fits-all creativity curriculum. However, the literature presented in this paper about social and environmental conditions that can help or hinder creativity, and the importance of developing students’ creative self-efficacy, are two key areas of research that should underpin the practices of teaching and learning creativity. Such research could be used to assess which existing practices enhance creativity, as well as to develop new creative practices that incorporate technologies now infused in everyday life. This approach is more educationally sound than the popularist, de-contextualised ‘thinking outside the box’ activities or ‘How to be a creative genius!’ books and courses. Creativity cannot be dumbed down and there are no shortcuts [35]. Trying to do so might be counter-productive to truly enhancing creative potential and ability. Although there are undoubtedly many classroom programs that effectively develop student creativity, these are not well documented or disseminated. More empirical studies are needed to provide further evidence of effective practices for enhancing creativity within and/or across various learning domains, and within different contexts.

The Queensland Academies are one example of how the Queensland Government is trying to move from policy to practice in encouraging the development of bright, creative students. However, in addition to the regular struggle of an overcrowded curriculum, these schools also need to balance teaching for creativity with an acutely rigorous, standardised, high-stakes curriculum (due to their adoption of the International Baccalaureate Diploma Program). Therefore, the need for effective, evidence-based practices for enhancing student creativity is also particularly important for these schools.

The building blocks of a shared creativity discourse, informed policy, and effective educational practices for teaching and learning creativity lead to processes that are both synergistic and cyclical, as shown in Figure 1. For example, Queensland policies are encouraging discussion and revealing the need for a creativity discourse, which will further inform policy (synergistic). Policies that encourage developing shared language about creativity will also shape practice implemented in schools and then further inform and improve policy (cyclical). Moreover, effective practices that largely stem from the traditions of teaching the creative arts are informing both policy and discourse in other domains, such as science and technology (synergistic). These processes will differ, depending on the context and domain. Regardless of the order, in education, the fundamental goal is to develop effective practices for enhancing student creativity.
CONCLUSION

Encouraging and enabling the development of students’ creativity requires more than writing policies, although this is a starting point. Policies should be informed by clear, consistent definitions and understandings about creativity, giving stakeholders a shared view and discourse with which to discuss their own and others’ creativity. Teachers also need to be trained in teaching and learning practices for creativity that are based on empirical research. Although limited, there is some existing research about environmental and social considerations that can positively or negatively affect student creativity, including factors relating to the classroom climate, teachers, and peers. Another critical element is building students’ creative self-efficacy so that they feel confident in their potential to develop creative ideas and products. Teaching for creativity requires drawing on teachers’ existing practices that encompass these considerations, as well as integrating emerging creative practices.

The three building blocks of shared discourse, informed policy, and effective teaching and learning practices should be closely aligned, and continually improved and expanded as new evidence emerges. School curricula and environments, teachers, and students all play a significant role in young people’s creative development. This responsibility cannot be underestimated. Developing everyday creativity has significant benefits for individuals and society [50]. Encouraging the mini-c and little-c of our students now contributes to their potential to later reach higher levels of the creativity continuum. Fostering creativity in students is essential preparation for their roles as tomorrow’s leaders. We do not expect all young people to achieve Big-C creativity in the future; however, the creative solutions of everyday people will greatly contribute to personal development and achievement, culture, the economy, advancements in science and technology, and sustainable development of our global society.

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