Running Head: CREATIVE TEACHERS

A synthesis of research concerning creative teachers in a Canadian context [*]

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Abstract

Effective teachers are often creative ones, yet an examination of creative teaching is largely invisible in the North American creativity literature. Even within education there is little about teachers' own creative practice. Nonetheless, there are benefits to studying creative teachers: in education it can explicate ways of enhancing teachers' creativity and enriching praxis; and in psychology it can extend our understanding of social and interpersonal creativity, as well as everyday creativity. This paper reviews 12 Canadian case studies of creative teaching conducted by a creative teaching research group. An in-depth elaboration of two themes, creative person and community, is presented.

Keywords: creative teaching; creativity; teacher behaviour; teaching methods; creative person; community

A synthesis of research concerning creative teachers in a Canadian context

Before Guilford (1950) brought creativity to the forefront of educational and psychological research, few investigators were interested in studying it. Since then the domain has grown considerably, but has not followed a unified path (Runco, 1997). As with many fields investigating human activity, the conceptualization of creativity is divergent, conflicting, and subject to diverse perceptions. This paper will examine creativity in the context of the creative teacher, exploring two primary themes that have emerged from a longstanding program of research conducted in Canada.

1. Why Study Creative Teaching? Creativity is an international concern (See Cheng (in press), Eteläpelto & Lahti (2008), Kampylis, Berki, & Saariluoma (2009), Karwowski, Gralewski, Lebuda, & Wiśniewska (2007), and Rudowicz, Tokarz, & Beauvale (2009) as examples of investigations of creativity in international contexts), and is seen as a core human competency (Simonton, 2003). With the shift from an industrial economy to a knowledge economy, skills supporting the creation of knowledge and innovation are prized (Sawyer, 2006a). The innovation economy requires that schools emphasize learning for deeper understanding, rather than mastery of lower-order facts and skills (Bereiter, 2002). Teaching, therefore, must be creative and improvisational (Sawyer, 2006a). If classrooms are scripted and overly directed by teachers, students cannot co-construct knowledge, and both student and teacher growth are stunted in the process (Scot, Callahan, & Urquhart, 2009; Woods, 1995). Creative teaching is also necessary to meet the complex educational needs of diverse student populations. Teachers must be creative with their knowledge and practice when working with multilingual and multicultural learners, and students with diverse learning needs and socioeconomic histories. In fact, it is difficult to

imagine successful teaching that does not depend on teacher creativity. As lessons are planned and improvised to meet the varied needs, interests, and abilities of students as well as conforming to the formal policy, curriculum and available resources, teachers are engaging in everyday creativity (Rejskind, 2000). In addition, teachers juggle interpersonal, instructional, and managerial tasks and problems, creatively handling challenges on the spot with little or no warning (Ambrose, 2005). Though the idea of creativity as a characteristic of a good teacher is recognized (Halliwell, 1993), it is not reflected in many official professional competencies.

2. Defining Creativity. Definitions of creativity vary, but most include two essential criteria: that an action or product be unusual or unique, and that it be useful or valuable (Cropley, 1999). Questions that arise are: new and useful to whom? Recently it has become customary to talk about two levels of creativity: eminent or “Big C” creativity and "little c," everyday or local creativity. "Big C" creativity transforms or changes the symbolic domain of a culture on a global scale, having a significant impact on society (Csikszentmihalyi, 1996). Everyday creativity involves coming up with novel and useful solutions to everyday problems (Richards, 2007). It is an intrinsic part of living and a core component of living well. Craft (2002) described localized creators as those who have a reputation for creative work in a local context. In this paper we will refer to everyday, local, and eminent levels of creativity.

2.1 Creative Teaching. Teaching can be deemed creative when a teacher combines existing knowledge in some novel or unique way or introduces new processes to cultivate cognition to get useful results (student learning). This may be either planned before the act of teaching, or improvised as a response to the demands of the learning context. In North America, much of our understanding of creativity comes from case studies of eminent creators in the arts and sciences (see Csikszentmihalyi, 1996; Gardner, 1993). Teachers, generally, do not achieve this level of

recognition, yet they routinely engage in everyday and localized creativity (Rejskind, 2000). In the UK, however, there has been more interest in investigating teacher creativity. Research has found that creative teachers (Jeffrey & Craft, 2006; Woods, 1995):

- are *innovative* (extending the boundaries of the conventional through new combinations, either planned or serendipitous);
- have *ownership* of the knowledge (changing or modifying curriculum to address the specific needs of the students and/or the educational goal);
- exercise *control* over the teaching processes involved (having a need for choice and the power to make it through practical involvement);
- and *operate within a broad range of accepted social values while being attuned to student cultures*.

Generally they tend to (Woods & Jeffrey, 1996):

- be *independent* (have minds of their own, but are strongly collaborative);
- have *a humanist approach* (focus on the student as a developing person);
- are guided by a *strong moral purpose* (clear values);
- demonstrate *a concern for equity*;
- are *teacher- as well as student-centred* (they create an atmosphere to insure learning and engagement);
- use *firm control* (tinctured with care);
- and exhibit *a strong emotional investment in teaching* (they are passionate about their work).

In addition, they engage in and encourage

- *possibility thinking*, posing questions that assist in the exploration of a problem space and cultivate an exploratory attitude; and
- promote *learner inclusivity*, in that they are open to hearing student perspectives on their learning and take their ideas seriously (Craft, 2008).

Generally, these personality characteristics, values and instructional positions are synthesized into creative teaching which include curriculum preparation, teaching methods, connection with students, shaping of the environment, and reflection on practice.

2.2 Influence of Level, Domain, and Culture on Creativity. Weisberg (2006) has argued that the basic cognitive processes underlying creative production are consistent across levels and domains, but the situation is less clear for other aspects of creativity (i.e., physiological and socio-emotional). Levels and domains refer to the systems a creative person must navigate within and between to operate the process of creativity successfully. One must first be a domain expert in order to progress through the varying levels of that domain to achieve a thorough understanding of how to create novelty in that domain (Csikszentmihalyi, 1996). In reviewing the personality traits of creative individuals in the arts and sciences, Feist (1999) reported commonalities across disciplines, but noted striking differences which might be contingent upon the specific sub-domain within a discipline. He observed that creative research scientists had a constellation of traits focused on asocial characteristics of introversion, independence, hostility and arrogance and were seen by others as more hostile and exploitative, whereas those who think complexly about teaching were viewed as more gregarious and warm.

Culture and context also influence creative work **(**Bhawuk, 2003; Csikszentmihalyi, 1988). Cultures differ in how they value, express, and nurture creativity. Cross-cultural research has found that creative expression differs in kind, rather than magnitude (Lubart, 1999). Western

cultures place a high value on creativity that results in novel products, while Eastern cultures value creativity that involves process outcomes. However, the impact of culture cannot be limited to notions of ethnic culture; cultures embedded in communities of practice and disciplines also play a significant role in shaping what is considered creative (Csikszentmihalyi & Wolfe, 2000). Thus it is important to study everyday, local, and eminent creativity in a variety of domains and cultural settings in order to determine the extent to which personality and environmental correlates of creativity are consistent and divergent. As yet, there are few in-depth studies of individuals who display everyday or local creativity in social or interpersonal domains.

For teachers, the level and domain of creativity are inextricably intertwined, embedded in a practice culture of thinking, planning, and decision-making as they interpret the structure of the curriculum and act on pedagogical formation (Moore, 1993). Creative teaching does not lead to eminence, since it is local in nature: It takes place in one classroom at a time, usually behind closed doors. When creative teachers do gain recognition, it is usually at the level of their local school board, institution, or teacher organization, especially for early childhood, elementary and high school teachers. Thus, teacher creativity is limited to everyday or localized levels.

Additionally, the domain of education differs in significant ways from the arts and sciences. Creative individuals within arts and science domains typically work alone or with a small group of equal collaborators. Teaching, however, is an intensely interpersonal act involving groups of 20 or more individuals of disparate capacities, whose memberships are constantly changing. As well, creative artists, scientists, and writers may have considerable control over their work and schedules, and frequently take the time necessary to perfect their works. Teachers, however, have very little influence and control over important aspects of their work, since they are subject

to mandated school timetables and curricula. A lack of time is a common complaint in educational contexts (Wagner, 1998), with little time for the reflection that is necessary for creativity. These and other differences point to specific areas where we can look for domain-specific aspects of teacher creativity.

2.3 Creativity in Education. Creative teachers are needed both to increase students' creativity and to effectively implement modern curricula (Ministère de l'Éducation, du Loisir et du Sport, 2001; National Advisory Committee on Creative and Cultural Education, 1999; Pedagogical Institute, 2003). Creativity is increasingly considered an important skill for all to acquire (Sawyer, 2004; Strom & Strom, 2002), and should be treated with the same status as literacy (Robinson, 2006). Even though teachers' creativity plays an important role in developing students' creativity (Runco, 2006) and creativity is seen as an important dimension of education, there has been little research on creative teaching practice outside of the UK. As well, teacher creativity is needed in order to be more effective in enacting strategies in line with the current thinking about learning. The rising paradigm of student-centred constructivism requires teachers to modify curricula to meet the interests and needs of their particular students, and the ever-increasing press of information. However, guidelines for its application to classrooms are lacking (Windschitl, 2002). The ability to adapt these general principles to specific instructional situations depends upon teachers' creativity (Rejskind, 2000).

Baker-Sennett and Matusov (1997) underscored this by describing constructivist teaching as a form of creative improvisation. Sawyer (2004) concluded that effective teachers are those that can use a wide range of degrees of structure, shifting among scripts, scaffolds, and activity formats as the material and students require. If students are to be creative and co-construct knowledge, then teachers must be creative in order to facilitate that process. Though some

jurisdictions have introduced scripted teaching, teachers must often improvise when students' ask unscripted questions, or fail to understand the scripted lesson. In short, there is no way to avoid the need for creative teachers.

3. Purpose of the Research. Creative teachers are critical to successful education. Thus a research group interested in creative teaching led by Bramwell-Rejskind spent more than ten years investigating Canadian creative teachers and their impact on students and colleagues. In this paper we, as four members of this group, present a synthesis of that body of research and situate the emerging picture of creative teachers within a broader literature on creative individuals in other domains.

4. Theoretical Frameworks. The majority of studies included in this synthesis were carried out within a systems theory framework. Systems theory recognizes that creativity is a complex process, which arises out of the interactions between an individual or group who engages in a creative process within a particular context or domain to produce a creative product (Keller-Mathers & Murdock, 1999). Within this framework, we conceptualize creative teachers as those who understand that the classroom is a system within a school, within a district, embedded in a larger community. Within this perspective we view creative teachers as understanding that each student is an open learning system of physical, cognitive and socio-emotional development situated in a culture that may or may not be conducive to the educational institutional environment. Therefore to thoroughly and successfully navigate these systems, creative teachers must be aware and reflect on them simultaneously throughout their practice of preparation, connection with students and post-practice reflections. They must be aware of the sub-systems that exist within each of these larger systems. We contend that it is only with this awareness and

diligence to continually improve their practice can they achieve creative success in their practice (Lilly & Bramwell-Rejskind, 2004).

5. Methodology. Following Policastro and Gardner (1999), we make generalizations about teachers' creativity based on a synthesis of studies of creative teachers carried out by the creative teaching research group. We reviewed 14 documents representing 12 data sets; in four cases we revisited raw data to confirm that our analysis was appropriate. One study (Rejskind, Reilly, Mitchell, & French, 2002) was descriptive, based on survey results. The remaining used case study methodologies, which have a respected history in creativity research (Policastro & Gardner, 1999). Cases are particularly appropriate to researching creative teachers since relatively little is known about them (Yin, 1994). They also meet Yin's criteria of a phenomenon within an authentic context where the boundaries between phenomenon and context are not evident. See Table 1 for an overview of the methodology used in each study.

-- Insert Table 1 here --

5.1 Participants. Case study participants displayed either everyday or localized creativity. Teachers who demonstrated localized creativity were those who were nominated or received awards for teaching excellence or for innovative teaching methods. Others who demonstrated everyday creativity were involved in creative undertakings and initiatives such as introducing inquiry teaching methods or engaging in action research to improve their practice and create living educational theory. They came from elementary, secondary, and university classrooms, and included special education teachers, a piano teacher, and a retired teacher who was working as a docent at a fine arts museum at the time of the study.

5.2 Analysis. Constant comparison (Dye, Schatz, Rosenberg, & Coleman, 2000; Glaser & Strauss, 1967) was used to identify concepts that were grouped into categories. We began by

outlining the data set. We selected all of the studies from the group that focused exclusively on creative teaching. Bramwell-Rejskind conducted an initial synthesis based on a sample of eight case study documents. She searched for key issues, recurrent events, or activities in the data that become categories that illuminated the process of creative teaching. Related categories were grouped into themes and interrelationships among themes were explored. Every passage of coded text was compared with those passages already coded across all cases. This ensured coding consistency. Initial results from this examination were then shared with the other authors, who tested the emerging themes in relation to the data with which they were most familiar. The categories and themes were then refined and extended through ongoing discussions and subsequent comparative analyses of the remaining documents. The descriptive survey was not used in the process of establishing themes but to further substantiate them.

Consistent with qualitative methodology, we did not use frequency counts of categories as a measure of their importance. Given the widely differing foci of the studies, counting was not relevant in that the absence of a theme or category from a document indicated only that it was beyond the scope of that particular study. Instead, when summarizing the presence of categories and subcategories for each case we considered whether or not they were present in each document and also how central they were to the study. A category or subcategory that was a central finding in any study was included in the analysis. Categories that were not central to any study but that recurred in most were also included. Categories that appeared only peripherally in many or all cases were excluded. Given the body of work produced by UK researchers into creative teachers, we use their findings as a comparative touchstone with regards to our own, in order to develop a portrait of overlaps and distinctions.

6. Findings and Discussion. Four major themes emerged from our analysis of these case studies: *Creative Process*, *Creative Person, Outcomes*, and *Community*. In this article we discuss two of these themes, *Creative Person* and *Community*, since they have important implications for teacher preparation and professional development.

6.1 Creative Person. Of the 12 studies, 10 provided data concerning the characteristics of creative teachers. There was substantial consistency in the categories of characteristics, even though individual expressions of them varied considerably. The three major categories within this theme were *Personal Intelligences*, *Motivation*, and *Other Traits*.

6.1.1 Personal Intelligences. This category reflected teachers' capacity to understand their own intentions, feelings, motivations and desires, (*intrapersonal*), as well as a willingness to respond to and use this knowledge in their lives, work, and relationships (*interpersonal*). Intrapersonal characteristics identified within this collection of cases did not overlap with those identified in studies of UK creative teachers. However, there were some commonalities with the interpersonal intelligences.

Consistent with previous findings that eminent creators in the sciences and arts are high in intrapersonal intelligence, participants in the case studies made many statements that reflected both an awareness of their personal characteristics and their willingness to act on them. One teacher stated that, "*I've noticed that I am a very visual learner. It helps me to put a lot of my ideas on the floor and stare at them, remember what it is, and make notes of what the connections are*"[1] (Lilly, 2002, p. 97). Another teacher stated that, "*I tend to focus very much at the task at hand...* [I am] *very single-task oriented*" (Chennabathni interviews). Informants in these cases also demonstrated that they were tuned into their own feelings. One teacher described how introducing an innovative inquiry curriculum was "*kind of scary for me in the beginning"*

while another described how the weekly meetings of a teacher-researcher group "*provides a respite, a sounding board and* [they] *are very encouraging, provided I am willing to be vulnerable"* (Bamford et al., 1999, p. 12).

In contrast to earlier studies on eminent individuals, but aligned with UK teachers' characteristics of being attuned to student cultures, being student-centred and promoting learner inclusivity, these teachers displayed well-developed interpersonal awareness and skills. They were tuned into and responsive to the motives and feelings of others. This was most evident in relation to students, and frequently provided the basis for their teaching decisions. One reported that she pictured herself and her students as she prepared her lessons. She had alternative plans at the ready and would *"read the students"* to sense which was most appropriate (Lilly, 2002, p. 80). A secondary school teacher created a series of projects when her students became aware of the endangered status of beluga whales and were upset: *"...okay you have done the research, is there anything you can do about it?"* (Chennabathni interviews). Case study participants were aware of the ways in which a wide range of conditions impacted on students and made it their responsibility to manage these conditions, from providing snacks and drinks (Reilly, 2005) to adding hands-on activities to complement pedantic secondary-school textbooks because *"I found that the kids did focus better, if they were given concrete tasks"* (Chennabathni interviews).

Since empathy builds on self-awareness (Goleman, 1995), teachers often used their self-knowledge as they reflected on students. One teacher stated this explicitly, *"It sounded like the kind of thing that I would enjoy doing myself, so that means it will be more enjoyable for the kids if I enjoy it"* (Chennabathni interviews). Similarly, an introverted teacher commented that, *"We all have different levels of comfort with self-disclosure, about revealing who we are"* (Dagenais, 2003, p. 22) and planned her teaching accordingly.

This empathy also played a role when reflecting on relationships with other teachers. Comments reflecting sensitivity towards colleagues frequently appeared. One teacher observed that the changes she introduced were sometimes threatening to other teachers (Bramwell-Rejskind, Halliday, & McBride, 2008).

6.1.2 Motivation. Consistent with previous studies of creative individuals (Amabile 1996), the informants in these cases were intrinsically motivated. This overlapped with the UK findings of a strong emotional investment and moral purpose. However, in these cases, teachers' values played a very prominent and explicit role. These creative teachers focused their creativity on activities that they themselves deemed to be important. None referred to extrinsic motivators such as merit pay, recognition, or summer-long vacations. They were persistent and passionate about their work. One teacher eloquently summed up teachers' motivations for creativity, declaring

> Teaching is my hobby, it's my job. Something I do really well, and it is also something I really adore. It is also seeing kids learn. I love seeing them excited. I love being in a position where I can watch and help it happen. I've got a lot of internal motivation to really do the best job I can. (Chennabathni interviews)

One aspect of intrinsic motivation, that the work be enjoyable and interesting, was a recurring reason for creative activity. This was seen as important not only for students, but also for themselves. *"So, my creativity was… so I could be in an environment where I would enjoy my time, and let* [student] *learning take place"* (Riccardi interviews). Though references to enjoyment and learning usually overlapped, there was also the sense that enjoyment had worth in its own right: *"One of the advantages that immediately comes to mind is the fun the kids* [have]

learning" (Bramwell-Rejskind et al., 2008). Other researchers, too, have noted that enjoyment is a significant aspect of creativity (Russ, 1993).

Consistent with research on creators in other fields (Helson, 1996), all but one teacher indicated that they wanted to make a difference. Some wanted to make a difference to the world through their students, *"... and that was my emphasis throughout... How are you going to make a difference to the world?"* (Chennabathni interviews), while another "*likes to challenge society by doing her part to make the world a better place for all to live"* (Lilly, 2002, p. 71). Others set their sights on improving the community, the educational system, or their students' lives and learning. The specific impact that they wanted to make depended on what it was they most valued.

Our results differ from reports of eminent individuals in that values emerged as a core category central to understanding these case informants' creativity. Getzels and Csikszentmihalyi (1975) noted that values influence intrinsic motivation, and shape the formulation of goals (Csikszentmihalyi & Wolfe, 2000). In this context, values were the mainspring of teachers' intrinsic motivation and provided the framework within which teachers made their instructional decisions. The most commonly held values included valuing relationships, the full development of individuals, and intellectual values, many also held by UK creative teachers. The relative importance given to any specific value varied from teacher to teacher but the centrality of values was consistent across all cases.

With the exception of one (Riccardi, 2001), strong interpersonal relationships among students, between students and teachers, and with colleagues were highly valued and necessary. One teacher "*felt strongly that intimacy should be the goal…*"…… (Lilly, 2002, p. 80). Building strong connections between students was the central value that lay behind most of the

instructional decisions made by another teacher who started one major project because *"*[i]*t looked like it was something that could draw together diverse groups* [of students]*, which is what happened"* (Chennabathni interviews). Even when student groups were less than successful they were considered worthwhile because *"that's a real-life skill, being able to communicate and work in groups. Even though kids get frustrated by it, it's really important that kids develop those skills…"* (Bramwell-Rejskind et al., 2008).

Strong relations with colleagues were also highly valued since *"it is very hard to work in a vacuum"* (Chennabathni interviews). These teachers sought out like-minded peers for collaboration. The genius of the action research group that teachers established in one school was *"that it has drawn us out of this solitary existence and made us accountable to each other"* (Bamford et al., 1999, p. 17). One member even stated that her *"greatest pleasure is experiencing the strong bonds and support that are created among educators"* (p. 16) with many resulting benefits for both teachers and students.

The informants in the case studies also valued individuals' well-being and personal development, much like their UK counterparts who exhibited humanist creative teaching approaches. Though group teaching methods were used, the ultimate emphasis was on the individual student's needs and development. A common rationale for choosing to use inquiry, student-centred constructivist teaching methods, project-based learning, or other innovative approaches, was that they resulted in increased success for all: *"I see everyone succeeding, no-one failing"* (Bramwell-Rejskind et al., 2008). A university instructor considered *"empowering individuals"* (Lilly, 2002, p. 71) to be an important aspect of her teaching. Similarly, the piano teacher's concern for individual development was reflected in her goal that students learn both to

express their feelings through their music and also to cope with performance anxiety (Kronish, 2004).

Consistent with previous research (Ochse, 1990), all of our case-study informants valued intellectual activity, for their students as well as for themselves. For the majority, student learning was the raison d'être of their creative efforts. They had little interest in rote or *"just book learning"* (Chennabathni interviews). Learning that was useful, relevant, meaningful, or authentic was highly valued. *"Even though they can't remember the actual parts* [of the eye] *they'll remember how they got the information. They'll remember sort of how to learn, how to find out the information. And that to me was pretty important"* (Chennabathni interviews). For the piano teacher it was "important to show students how to *'find a sound that can express feelings of student, to make them feel something, to tell something'* instead of emphasizing where to place the next finger…" (Kronish, 2004, p. 146). Most teachers who adopted innovative curriculum did so because they believed it improved students' engagement and learning.

> I think that it's a lot more rewarding to see the students so much more engaged, so much more interested, learning so much better. The kinds of things that you've been slaving away trying to teach them in the past in the more traditional methods and I think when you see that the things that they've been having so much trouble with finally click in because they've been able to process them themselves and sit there and really have a good think about it is a lot more rewarding than they finally memorize the lines. (Bramwell-Rejskind et al., 2008)

Although they have been considered separately, these values were closely intertwined. In the words of one university teacher

> … you also have to make sure that you… address all aspects of the person: mind, body, spirit and heart. Mind, in terms of learning about knowledge, and cognitive activities; body, in terms of physical activities, getting people to move around; and spirit, in terms of looking at values, morals, religion, and spirituality. (Dagenais, 2003, p. 26)

Similarly, the second-language elementary-school teachers who introduced student-centred teaching did so in part because "[t]he social and emotional experiences a student brings to the classroom are also considered part of the learning process. Schools become learning communities in which children construct knowledge through shared experience and come to understand that what they value matters" (Ricci, 2002, p. 27).

Although the importance of teacher's values is widely accepted in education, values have only recently received attention in the creativity literature (Dollinger, Burke, & Gump, 2007). Feinstein (2006) observed that values motivate, sustain, and guide creativity. However, he concluded they do not act directly but are mediated through interests. In contrast, these teachers spoke relatively little about interests; the values themselves were much more central and salient. Indeed, they were frequently referred to as the reasons behind instructional and other choices.

6.1.3 Other Characteristics. Although less central, many traits characteristic of eminent creators were also present (Cropley, 1997; Csikszentmihalyi, 1996). All the teachers saw themselves as risk-takers. One teacher was *"conscious that my teaching is a wild ride"* (Lilly, 2002, p. 84), and another compared the new strategies she was acquiring to being on a roller coaster with the guardrails gone and "*as a teacher you're just hanging on"* (Bramwell-Rejskind et al., 2008).

Yet security was also important to them, much like their UK colleagues, who tended to use the word control in similar contexts. One teacher described herself as a person who takes *"great*

risks while feeling secure using known structures" (Bamford et al., 1999, p. 16). Another considered school to be *"… a safe place. It was a place where I could do exciting things"* (Riccardi interviews). Though it seems likely that a need for security to balance risk is characteristic of creative achievers in other fields, it is not a trait that is generally used to describe them. What is consistent with previous reports is the contradictory nature of the statements, reminiscent of contrasting characteristics of creative individuals. Csikszentmihalyi (1996) identified ten polar tensions that creative persons must manage within themselves in order to generate creative energy: responsible-irresponsible, humble-proud, ambitious-selfless, competitive-cooperative, conservative-iconoclastic, and openness to joy-openness to pain. This polar tension between risk-security displayed by teachers in these cases may be a similar source of creative energy.

6.2 Community. Community was the second major theme to emerge from our data that has salient implications for teacher preparation and development. This theme was unique in the teacher creativity literature; there was little explicit emphasis on community in the UK research. We named the theme *community* because teachers themselves frequently used the term. It does, however, overlap with the concepts of environment and context. Two categories were identified within the community theme, *Teachers in Community* and *Teachers Building Community*. Although the two aspects have been separated for purposes of discussion they are intertwined in that it is not possible to build community without also being a member of that community, and thus influenced by it.

The participants in these cases were very aware that their creativity was influenced by the communities to which they belonged. Though our initial analysis focused on how these influences either supported creativity or acted as barriers to it (Lilly & Bramwell-Rejskind, 2004;

Bramwell-Rejskind et al., 2008), in the course of carrying out this synthesis, a third view emerged: communities shape creativity. In many instances, community influences were neither barriers nor supports but rather seen by teachers as channels for creative activity. One example of shaping is seen in the teacher who undertook to use technology in her teaching because *"technology is big"* in her school board (Chennabathni interviews), and subsequently, there was a lot of support of her efforts. Even when teachers perceived environmental influences to be barriers to creativity their coping response was often creative. In the words of one, *"most of our perceived barriers can be overcome by using creative alternatives"* (Bamford et al., 1999, p. 19). This interpretation is consistent with the view that task constraints can actually enhance creativity (Stokes, 2001). Consequently, we use "shape" as the generic term, reserving barriers or supports for those situations in which the teachers themselves made that distinction.

6.2.1 Teachers in Community. The first major sub-theme, *Teachers in Community*, referred to aspects of the community that had an impact on teachers by virtue of their membership in it. Teachers differentiated two major communities in which they were members: the *educational community*, which represented their immediate work environment, and their *lived communities*, the communities beyond their educational circles – from local neighbourhoods to society at large.

Within the educational community, the most influential members were administrators, fellow educators and students. The willingness of school and board administrators to assist teachers in finding ways around the limitations imposed by educational structures (e.g., official curricula, transportation and bussing schedules, resources or the lack of them, and school timetables) was often essential to teachers being able to enact their creative ideas. Occasionally administrators made major structural changes which made specific projects possible. One group of teachers[2]

persuaded the school to introduce block timetabling: "*Although the concept of block timetabling would not be high on anyones list of significant educational methodologies or theories, without it, Victoria's Integrated Curriculum Project would not have been possible*" (Ricci, 2002, p. 30). In general, though, it was surprising how apparently minor actions by administrators made major differences to teachers. One secondary school principal changed teaching schedules so that a group of like-minded teachers were able to meet once a week over lunch to discuss their action research.[3] The impact on the teachers and, through them, on the school, was major and wide-ranging (Bamford et al., 1999). In another case, a beginning teacher *"...used to go to him* [the principal] *and just talk*" (Riccardi interviews) and this laid the foundation for her to develop her own approaches to teaching which later received recognition throughout the school board. Other simple acts by administrators such as passing on information about competitions, availability of funding for special projects, and school board priorities, also channelled teachers' creativity in particular directions. Consistent with Amabile (1996), administrators' support for particular teaching activities was most likely to lead to teacher creativity when it was consistent with teachers' own inclinations and values.

But administrators were not the only educators to shape teachers creativity. Colleagues and university faculty also had an influence. Two professors at local universities were mentioned several times as important sources of new ideas which shaped creativity, and for providing moral support for teachers who were developing their teaching (see Bamford et al. (1999) for an extensive description of one critical friend relationship). But it was other teachers who most often influenced the informants in these case studies. Colleagues acted as mentors, were a source of ideas, celebrated successes, and collaborated on projects. An action research group was a particularly important source of support for one group of teachers. One wrote

> The research group has been my life buoy and therapy group. It has given me the strength to continue when I was discouraged, and invaluable feedback and suggestions from all the participants. I know I am a better teacher because of my involvement in this Action Research Group. (Bamford et al., 1999, p. 12)

Not all references to colleagues and administrators were positive or neutral, and unsupportive colleagues and administrators were sometimes mentioned as limiting creative teaching. One teacher discussed the importance of winning over *"members of the community who are critical"* (Bamford et al., 1999). Others feared negative evaluations from colleagues and, in particular, this could inhibit creativity in beginning teachers without tenure (Bamford et al., 1999; Bramwell-Rejskind et al., 2008). One teacher got into trouble with school inspectors when her teaching did not fall into traditional didactic patterns, to the point that one *"had me practically in tears"* (Bramwell-Rejskind interviews). There were some indications that without at least some support from other educators, creativity would be hampered. One teacher reflected that during one year, when she was not supported by the administration, she had done *"very little outside the ordinary… So when I am secure I am willing to be, able to be as crazy, as creative, as off-the wall as I can be"* (Chennabathni interviews).

The educational community in which teachers spent most of their time was the classroom. So it is not surprising that teachers were influenced by their students. Indeed, successful teaching depends on adapting to students, and so students' perceived interests, abilities, and needs shaped teachers' creative practice. The case informants frequently used group work to help meet this challenge of diversity. Indeed, one of the perceived advantages of using inquiry and other student-centred teaching approaches was that giving students choices within limits made it possible to accommodate a wider variety of students. *"It lets kids work from where they are…"*

(Rejskind, 1998, p. 3). This parallels their UK colleagues who exercised control and were student-centred. However, for these Canadian creative teachers, these approaches were also employed to explicitly create a classroom community, as well as respond to individual students. At the same time, successfully implementing group work challenged teachers to be creative: One secondary teacher spent several years conducting action research focused on the best way to group mixed-ability classes (Bamford et al., 1999; Mitchell, Rejskind, Reilly, Slonosky, & Lilly, 2004).

Teachers were also influenced by students' resistance to new things, and had to rely on their creativity to engage them. *"I had quite a battle with that class. They did not want to change their ways"* (Bramwell-Rejskind et al., 2008). Whether the resistance resulted from feelings of inadequacy when faced with new expectations or processes, from a feeling of ease with more familiar routines, or from resistance to change per se, it challenged teachers to be creative because *"you have to develop methods of getting around that resistance"* (Bramwell-Rejskind et al., 2008).

Teachers' awareness of communities extended to beyond educational circles, from local neighbourhoods to society at large. These communities tended to have a rather broad influence on their creative teaching. One recognized that the factory model of education did not meet the needs of students for the changing economy and consequently changed her practice to constructivist and individualized approaches (Bramwell-Rejskind et al., 2008). The community outside of the school also shaped teachers' creative work in more specific ways. In one case, businesses provided resources without which some projects would not have been possible (Chennabathni & Rejskind, 2002). At other times, the specific choice of content depended on the particular experts in the wider community who could be invited into classrooms in person or on-

line (Bramwell-Rejskind et al., 2008; Chennabathni & Rejskind, 2002). Parental expectations also impacted teaching decisions; one teacher gave her students homework because parents expected it (Bramwell-Rejskind et al., 2008).

6.2.2 Teachers Building Communities. The second community sub-theme focused on teachers' actions that built or strengthened communities for themselves and their students. In addition to being influenced by their surroundings, creative teachers shaped their environments. Teachers built connections to their colleagues and to the community at large. As Bamford et al. note in their description of the teacher action research group, "*A practitioner can be a solitary figure, coping alone in his or her classroom. This situation is not conducive to new ideas, innovation…*" (1999, p. 17). Building a community of practice with like-minded colleagues filled that vacuum and reduced the risks of trying new methods. The importance of this kind of community is reflected in the title of this case report, which was a quote from one of the participants: *You may call it research; I call it coping*.

Creative teachers also concentrated their efforts on creating compatible classroom environments, the place where they spent most of their time. Similar to their UK counterparts, these teachers were active agents in creating climates for learning; but for these Canadian teachers, this often meant creating communities of learners. Given the extent to which teachers valued both interpersonal relationships and learning this is not surprising. They used a wide variety of strategies to deliberately build communities of learners in which students could participate. All teachers assigned work that required interaction or group work. Even the piano teacher, who did not have a traditional classroom, built a strong community of learners among her students. She did this by expecting them to come early to their lessons so they could interact with each other, having them perform for each other and for their families, and going to concerts

together (Kronish, 2004). The importance that teachers gave to group activities is illustrated by the teacher who collected data over several years on the best way to form groups in his secondary school science classes (Bamford et al., 1999; Mitchell et al., 2004).

For some it was also important to build connections between students and communities outside the classroom- other student groups, family, friends, and the neighbourhoods in which they lived. Thus, students at all levels were given opportunities to present their work in other classrooms, schools, school boards, and communities, creating webs of connections among them (Mitchell, 2002). Other teachers built these connections by inviting community members into their classrooms: *"I used to have retired people come into my class once a month at different times to help kids with their projects and things like that… kids loved it and the adults loved it"* (Riccardi interviews). Teachers also built connections between students and subject-matter experts, live or virtual, who were brought into classrooms to share their expertise. One secondary teacher, for whom community was a primary focus, provided students with many opportunities. In one unit she had students *"team up with a kindergarten class, and with a senior class and they have to* [measure] *themselves, and they have to do either a senior citizen or an infant. So they have to go outside the school"* (Chennabathni interviews). She was convinced that students *"are looking for unusual activities, things that aren't just book learning, but that really allows them to give to their community, and allows them to feel that they are contributing something."* She found numerous opportunities for them to do so.

Case study participants recognized that positive interpersonal relationships were necessary for establishing communities of learners. In the words of one elementary teacher, *"I must create a relationship with each and every student. The classroom must be a safe environment where no one fears humiliation, or feels a lack of acceptance"* (McBride & Dagenais, 2002). Teachers

devised a variety of tactics to bring that about. One participant included students' feelings about the groups as a significant variable in making decisions, along with considerations of academic outcomes. To the same end, a university instructor brought food and drinks to her discussion group to facilitate group development and functioning (Reilly, 2005).

This case (Reilly, 2005) also provided systematic data describing the way in which community was built, and examined the interpersonal processes involved in detail. She used participant observation to study a university teacher and four teaching assistants as they co-taught a process-oriented course on group dynamics. She identified three categories of values, two of which were associated with the creative processes of fluency and flexibility. These values, functioning as tacit rules for the team's social interactions, included positive regard, promoting inquiry, and disclosing the self. Positive regard included helpfulness and support/empowerment, which was reflected in statements such as *"I really liked that… who came up with the comment..."* (p. 176). Values promoting inquiry included listening/questioning for clarity and openness to disagreement/feedback. Reilly concluded that this value functioned as a driving force for discussion. The third important value involved self-disclosure as reflected in statements such as *"... you see, I don't know if I'm really supposed to do this"* (p. 193). These same processes were observed in the Bamford et al. study (1999). Both self-disclosure and positive regard are reflected in an exchange in which one teacher described a problem she was having and another responded with, *"Happens to everybody. Happened to me yesterday"* (p. 17) and the group went on to make suggestions as to how to handle it.

The finding that teachers are influenced by their communities is consistent with creativity research in other domains (Bhawuk, 2003; Feinstein, 2006; Gruber & Wallace; 1999; Sawyer, 2006b). Further, teacher responsibility to ensure that schools become learning communities in

which students construct knowledge through shared experience (Ricci, 2002) is widely accepted by educators, and how to do so effectively is a current issue in the field (Sawyer, 2004; Windschitl, 2002). While community building is not unique to teachers it has not been extensively studied in eminent creators.

6.3 Boundaries of this Synthesis. A limitation to these findings is that the case informants had all received positive recognition for their creative undertakings, either at the local level or by the member of the creative teaching research group who worked with them. If other means of identifying creative teachers were used, a different picture might emerge. Because teachers differ from eminent individuals both in domain and level of creativity these studies cannot determine the extent to which each contributed to the differences. As well, it is possible that differences in level of creative achievement are also a factor in that individuals who seek eminence are unlikely to choose an occupation that does not permit it.

7. Implications for Teaching Practice. There are several implications for pre-service and in-service teacher education that emerge from this synthesis. Many involve enhancing the prospective or seasoned teacher's emotional or social intelligence competencies (Goleman, 1995, 2007), modifiable human capacities, and cultivating new ways of creative thinking available to anyone who invests the time and effort to cultivate them (Gardner, 2009).

- Employ activities that develop the capacity for and use of intrapersonal reflections and self-awareness in teaching practice, using reflection journals and sharing these reflections publically in a safe space. Awareness of one's own thinking, feelings, motivations, and intentions, and their influence on teaching style, can then be drawn on to fuel passion about teaching and an individual's own creative practice. This is done most effectively

using public reflection circles which promote teacher thinking (Reilly, 2008; Reilly & Bramwell, 2007);

- Build proficiencies in interpersonal competencies and emotional intelligence as fundamental teaching practice skills through human relations training. By increasing teachers' abilities to manage their emotions, motivate themselves, demonstrate empathy, and handle relationships, pre-service and in-service programs give teachers key tools to creatively enact the social dimensions of teaching and learning in the classroom, as well as build teacher confidence. Confident teachers are more willing to take risks, connect with their students, and plan engaging curriculum and instruction. And, they are more likely to draw on their creativity to do so. With this success comes higher self-efficacy and optimism that foster resilience both in teachers and students (Burgstahler, 2009; Lilly, 2010). This is highly important for the future of teaching since self-efficacy and optimism lead to resilience, which reduces teacher burnout and attrition.
- Build teacher proficiencies in community building (Block, 2009). By developing the skills of communication, facilitation, team-building, problem-solving and conflict-resolution, teachers can then build effective classroom learning communities. By orchestrating group creativity through the use of learning communities, there is the likelihood of increased quality of the learning and classroom's products, students' ability to work together interdependently and members' satisfaction with group experiences (Milliken, Bartel, & Kurtzberg, 2003). This interdependent and complex process ensures higher student achievement and effective program assessment and evaluation holding schools accountable for quality education (Essex, 2006);

- Engage in explicit explorations of values with regards to teaching and creative practice through values clarifications exercises (Raths, Harmin, & Simon, 1966). The clarifications of teachers' values allows them to be more mindful and cognizant in their practice, in conducting their relationships, enacting curriculum, and in building communities;
- Create experiences with self-managed learning projects, such as educational action research, in order to build an appreciation of their own intellectual activity and creative capacity; and
- Experience membership in classroom and beyond communities of practice, creating opportunities and connections for collaboration and co-participation with more- and less-experienced practitioners.

These actions can help to create a more creatively empowered teacher practitioner base.

8. Conclusions. Creative teaching is not only necessary to meet the complex educational needs of diverse student populations, but is a requirement to cultivate students skills to function effectively in the new knowledge economy. In the context of the studies examined, Canadian creative teachers shared may characteristics with their UK counterparts: they were student-centred and promoted student inclusivity and student interests in the classroom; displayed well-developed interpersonal awareness and skills; were intrinsically motivated by a value-based orientation in their creative teaching; and balanced risk with secure structures.

However, these Canadian creative teachers were distinctive in that they: demonstrated intrapersonal awareness and used this insight in service of their creative teaching; based creative instructional and other choices on their values; and emphasized community connections for

themselves and their students, including building networks that extended beyond the four walls of the classroom.

Endnotes

[1] Quotations in italics are statements made by participants in the original case studies synthesized for this report. When taken from raw interview data, the name of the interviewer for the case is given (e. g. Chennabathni interviews); when taken from a report, the author and date are cited.

[2] Though the school was located in Hong Kong, the original informant was Canadian, as were many teachers in the school. The group used the Ontario curriculum as the basis of their reforms, and most of them trained in Ontario. We see this as the influence of Canadian teaching practice culture.

[3] Teachers who identify teaching problems, choose strategies to address them, and systematically evaluate the results of their actions carry out action research, an example of everyday creativity.

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Table 1.
Overview of the case studies.

Authors	Creativity level	Method and Context
Bamford et al. (1999)	Everyday; local	Single case (action research group) with embedded cases (secondary school teachers & other participants)
Chennabathni (2006); Chennabathni & Rejskind (2002)	Local	Single case study of award-winning secondary school science teacher. Multiple interviews with informant, supplemented with interviews with colleagues, personal memos, teaching materials, and a classroom observation.
Dagenais (2003)	Local	Single case study of university professor who later won a faculty award for teaching excellence. Interviews and semester-long participant-observation of an undergraduate course; personal memos; personality questionnaire.
Kronish (1999); (2004)	Local	Embedded single-case study of well-known piano teacher and 4 promising students. Observations and interviews over 4 months and follow-up interviews 2 years later.
Lilly (2002); Lilly & Bramwell-Rejskind (2004)	Local	Case study of award-winning university instructor planning and teaching a course. Observations before and during the course; course materials; ongoing interviews with participant; interviews with students, husband; personal memos.
McBride & Dagenais (2002)	Local (instructor); everyday (student)	Embedded case study. Self-studies by award-winning teacher and student, herself a teacher, in a university course.
Mitchell (2002)	Local	Embedded single-case study of award-winning special education secondary school teacher, her classroom, and her students. Classroom observations; personal memos; interviews with teacher and students; classroom materials; student records.
Bramwell-Rejskind, Halliday, & McBride (2008)	Everyday	Multiple case studies of 9 teachers using inquiry teaching. Primarily interviews; some observations. A variety of settings and teacher experience.
Rejskind, Reilly, Mitchell, & French (2002)	Local	Outcome study using a questionnaire. Secondary school students from the school described in Bamford et al. (1999) completed a questionnaire about their use of inquiry methods.
Riccardi (2001)	Local	Single case study. Observations of an award-winning retired teacher (elementary, secondary, gifted) preparing/leading an art-museum tour; interviews; videotapes of earlier classroom teaching used by the school board as a demonstration, and current group tour. Follow-up interview by Bramwell-Rejskind et al. (2008).
Ricci (2002)	Everyday	Single-case study of the development and implementation of new ESL curriculum in a private Hong Kong elementary school. Participant observation; student test results; teaching materials; curricula documents.
Reilly (2005)	Everyday; local	Embedded case study of well-respected university instructor (local) and teaching assistants (everyday) planning and leading an undergraduate class. Audiotapes of planning and debriefing sessions; interviews; self-reports; personal memos.