

About Creativity, Giftedness, and Teaching the Creatively Gifted in the Classroom

Ugur Sak

In this case study the author explored a teacher's beliefs about creativity and giftedness and investigated the classroom practices of this teacher of gifted students for 20 years. Seven semi-structured and 2 open observations were carried out in her classroom, and 2 prefigured interviews were conducted with her. She believed that creative children are those who are "free thinkers" and have "imaginative intelligence." The thin line between an academically gifted child and a creatively gifted child is built by "imagination," "emotional intensity," and "curiosity." In creative writing, she tried to implement activities such as learning to write poetry, personal narratives, research reports and essays posing solutions to real world problems, and mystery stories decorated with similes, metaphors and imaginative expressions. In reading, students analyzed characters, problems, places and times in stories and novels, and then rewrote stories.

Ugur Sak is a doctoral student in the Department of Special Education, Rehabilitation & School Psychology, The University of Arizona. He holds an M.A. in gifted education, and his main research interest includes assessment of giftedness and creativity, child prodigies, and curriculum models for gifted learners. E-mail: ugur@email.arizona.edu

Teacher attitudes, beliefs, and classroom practices are deemed to be of crucial influence in the development of students' creativity. However, what teachers know about characteristics of creative students and what they do to foster students' creativity have been found controversial (Alencar, 1993; Collings & Fryer, 1991; Cropley, 1994; Fleith, 2000; Gentry, Rizza & Owen, 2002; Mayfield, 1979; Rash & Miller, 2000; Starko, 1995; Tan, 2001).

Creativity is important at both the individual and the societal levels. At the individual level, creativity is relevant to solving real life problems. At the societal level, creative individuals pioneer progress in science and technology and the beauty in arts (Sternberg, 1999). Creativity also is important at the global level. Creative accomplishments help to build a more interactive world that fortifies human civilization. In fact, Starko (1995) argues that humans would have

no advancement in art, literature, science, and invention if human creativity did not exist. Ironically, educators sometimes teach students about creative and eminent people, but ignore teaching that fosters students' creative thinking in their classrooms. The importance of schooling in the development of students' creativity has been mentioned in many studies about creativity. The classroom is construed to open new pathways in children's creativity (Cropley, 1994; Fishkin, Cramond, & Olszewski-Kubilius, 1999; Lynch & Harris, 2001; Runco & Albert, 1990; Sternberg, 1999). Therefore, teachers can play important roles to enhance any components of students' creativity.

Teachers as Facilitators of Students' Creativity

Cropley (1994) highlights three aspects of teacher behaviors that can influence students' creative thinking in the classroom. The first aspect is the teacher herself as a role model. The behaviors that the teacher displays shape the behaviors students develop. The second aspect is the classroom atmosphere that the teacher builds. Creativity flourishes in an atmosphere that is constructively responsive to unusual ideas. The third aspect is the teacher's efforts that reward and foster students' creativity through instructional activities. These three aspects reflect personality (e.g., openness), intellectual (e.g., creativity) and knowledge prerequisites (e.g., instructional knowledge) that a teacher needs to teach creative students.

Teachers' Understanding of Creativity

Scholars in the field of creativity (Csikszentmihalyi, 1997; Gardner, 1993; Runco & Albert, 1990; Sternberg & Lubart, 1991) discuss important behaviors associated with creativity. However, teachers have been found to have insufficient knowledge of characteristics of creative students. Renzulli (1976) asserted that teachers lack understanding of the nature of creativity. Alencar (1993) found teachers tend to focus only on students' academic characteristics as indices of creativity. Fleith (2000) reported that teachers evaluated students as creative based on students' interpersonal characteristics. As the researchers have reported, teachers' beliefs about creativity are mixed. Some believe that creativity is a personality trait

while others think it is an intellectual ability related to academic achievement. Yet, few say creativity is multifaceted and can be fostered through supportive teacher behaviors and teaching practices.

Do Teachers Welcome Creative Behavior?

Teachers have been found to undervalue creativity (Dacey, 1989; Parnes, 1967). Cropley (1994) summarizes the kinds of behavioral and personality traits that are common to creative children but not preferred by teachers. These are "impulsive, nonconformist, disorganized, adventurous, and imaginative" (p. 18). Traits preferred by teachers are "courteous, punctual, well-rounded, receptive and obedient" (p. 19). In fact, Westby and Dawson (1995) reported that teachers seemed to have a negative view of characteristics associated with creativity. Students displaying creative behaviors tend to be unappealing to teachers. This claim is very important for the future of human advancement. When teachers do not know what creativity is, how it manifests and how it is important, they may ignore teaching for creativity; thereafter, loss of creative talent is reflected in scientific and artistic advancements in particular, and in human civilization in general.

Classroom Practices of Teachers

Researchers (Maker & Nielson, 1995a) have identified principles and found many ways to modify content, process, learning environments, and products that are challenging for creative students; nonetheless, teachers were found to be slow to integrate these modifications into their teaching-learning practices (Mathers & Murdock, 1999). Regarding content and process modifications in the classroom, Tan (2001) found that most experienced teachers considered all learning activities valuable for fostering the creativity of children. They tended to place more value on teacher-centered activities and rote memorization than did beginning teachers. On the other hand, most teachers, regardless of experience, perceived the importance of independent learning and collaboration for creativity. Fleith (2000) found that teachers did not use students' self-evaluations and extrinsic and intrinsic rewards for promotion of creativity.

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Runco (1990) and Starko (1995) state that a classroom environment that supports unusual ideas, provides freedom of thought and freedom of choice is conducive to creative achievement. However, Gentry, Rizza and Owen (2002) reported that students perceived little freedom of choice in their classrooms. Likewise, Alencar (1993) found most classroom climates discouraged students' creativity.

Creativity in the Classroom for the Gifted

Does the mirror of creativity in the classroom for the gifted reflect a different profile than the one in the regular classroom? There is little research to answer this question. However, in a survey with teachers of the gifted, Rash and Miller (2000) found that teachers of the gifted recognized the importance of process skills and used several teaching models. They used *Bloom's Taxonomy of Educational Objectives, Enrichment Triad, Taba Teaching Strategies Program, and Creative Problem Solving model* (Maker & Nielson, 1995a). Yet Bain, Bourgeois and Pappas (2003) reported in a survey study that, although most teachers of the gifted were aware of teaching models, they rarely used these models in their teaching.

Rationale

Teachers in general seem to lack two types of knowledge about creative children. One is the nature of creativity; in other words, the kinds of behaviors a creative child displays. The other one is about teaching for creativity; that is, how children's creativity can be fostered in the classroom. One assumption based on research findings is that most teachers do not favor creative behaviors and do not know how to foster creativity, probably because most do not understand the nature of creativity. Therefore, case studies of teachers who have experience with teaching gifted and creative students can bring new insights into understanding and teaching creative pupils. This method of investigation also can help the development of new teaching and learning strategies useful for challenging and fostering creative students.

Although some research has been done with teachers, using surveys and questionnaires (Collings & Fryer, 1991; Fleith, 2000; Gentry, Rizza & Owen, 2002; Rash & Miller, 2000; Tan, 2001), in reality, these methods of investigation have not provided in-depth information

about teachers' understanding of creativity and their classroom practices to foster it. Unless the researcher embeds himself or herself in the classroom, what he or she finds might be cosmetic information. I believe relationships between teachers' perceptions and classroom practices can be better understood, and useful practices to foster creativity can be better identified through case studies when the researcher becomes part of the classroom setting as an insider, or an observer of the natural setting as an outsider. The purpose of this study was to understand the beliefs of a teacher of the gifted about creativity and to further investigate the practices she used in the classroom to foster gifted students' creative thinking. To achieve this purpose, a qualitative method of investigation was used; therefore, classroom observations and interviews were carried out. The following research questions guided the study:

1. What does a teacher of gifted students believe about students' creativity?
2. How does this teacher foster students' creativity in the classroom?

Theoretical Framework

Despite extensive research about creativity, there is little consensus on what creativity means, how it is manifested, and how it is enhanced. On the one hand, this is because of the divergence in people's understanding of creativity. On the other hand, it is because of the way creative behaviors are valued differently in different contexts (Amabile, 1996; Fishkin, Cramond & Olszewski-Kubilius, 1999; Lynch & Harris, 2001; Simonton, 1997, 2003; Sternberg & Lubart, 1991). The definition of creativity varies from person to person, from place to place, and from time to time. Hence, creativity by definition is a complex and subjective phenomenon, about which human beings construct meaning out of their experiences.

According to the constructionist epistemological view, human knowledge is constructed through meaning-making activities of the individual mind (Crotty, 1998). The same phenomenon is interpreted differently by people with different experiences in different periods and in different places. This view of human knowledge makes sense when speaking of creativity, which is both abstract and

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subjective. It is subjective because it is construed through effects on individual minds. Therefore, our experiences seem to play a unique role in our understanding of creativity. For example, many people's image of a gifted and creative individual is "a little guy with thick glasses" or "a young rebel poet" (Kerr & Cohn, 2001, p. 39). Likewise, some people consider gifted and creative persons as geniuses who share a common set of personality and intellectual characteristics such as loneliness and precocity (Piirto, 1998). Still, media portrays a genius as a biopsychological intersection of some psychotic syndromes such as schizophrenia and intellectual gifts such as creativity as seen in the movie, *A Beautiful Mind*.

From the constructionist vantage point, meaning cannot be made objectively nor just subjectively because we do not create meaning but we construct meaning through our experiences with the world (Crotty, 1998). Crotty says, "All meaningful reality is socially constructed... the basic generation of meaning is always social, for the meanings with which we are endowed arise in and out of interactive human community" (Crotty, 1998, p. 55).

A classroom is both a social and an academic environment in which teaching-learning, teacher-student, and peer interactions take place. In other words, what occurs in a classroom is in large part social interactions whereby both teachers and students construct meanings. A teacher experiences how students grow psychologically, cognitively, and physically during the course of schooling. The teacher's perceptions of students' psychological differences vary from those who have never had similar experiences in an interactive classroom culture. Therefore, teachers' understanding of creativity and their classroom practices can be better explained from the constructionist epistemological view, which is what the author of this study held before going to the research field.

Methods

Participant

Rossman and Rallis (1998) underscore the importance of the decision to choose participants in qualitative studies. Indeed, it is fundamental to the entire study. The criteria I established to select the participant were as follows: willingness to participate, extensive classroom teaching experience, experience with teaching both high and average ability students, and nomination as exemplary by school administrators or teachers.

Martha (a pseudonym) was a teacher of gifted students at an elementary school in the southwest region of the USA. She has been teaching both gifted and average ability students for 20 years. She graduated from the University of Arizona with a B.A. in secondary education, a major in history and a minor in political science. Later, she went back to the university to obtain an endorsement in gifted education. She also took several courses at a special summer institute, the *Greater Phoenix Writing Project*, and some incidental courses in math, for she was the math leader in her school for many years. She was honored with the best teacher award in the district in 1998. She retired a year ago. Employed as a part-time teacher, she was still teaching 3rd and 4th grade gifted students in a pullout program, which had 12 verbally gifted students in language arts and 15 mathematically gifted students.

Setting

The school where Martha worked was an inner city elementary school. Seven hundred and forty-one students were currently enrolled. There were 41 teachers and 2 administrators. The school's population was 64% White, 23% Hispanic, 8% African American, 4% American Indian, and 1% Asian. The mobility profile of the school indicated 223 new student entries and 125 withdrawals in the year of this study. Average daily student attendance was 662. Thirty-nine percent of the students received free and reduced lunch. The school district provided special programs for students in the school: Special Education Resources, Special Education Self-Contained, Cross Categorical, Speech and Language Program, ESL, Title I, Reading Recovery, and Advanced Educational Placement (AEP). Martha taught in the AEP Program.

Teaching only in the mornings, Martha shared the classroom with a sci-

ence teacher, who taught in the afternoon. Student tables were in vertical rows facing the board. Martha's table was on the right front corner of the classroom. There were six computers on the right side, and a classroom library on the left front. She displayed students' work at the back of the classroom. Students' work included drawings, poetries, essays, stories, and some reports. While she was lecturing or leading a discussion, she usually sat on a chair in front of the students.

Data Collection

During a 6-month period, I performed 7 semi-structured observations in Martha's language arts class as part of a larger project, entitled *Teacher Advancement Program*. The purpose of the project was to investigate through classroom observations types of instructional activities, learning environments, and teacher-student interactions in 2nd to 5th grade language arts classes. Martha was one of the teachers who volunteered to participate in the project. Because Martha also was the participant in this study, I increased my observations extensively her classroom, seeking answers to my research questions. I paid special attention to her classroom practices related to students' creativity. A month after I completed the 7th observation, I carried out 2 more open-ended classroom observations focusing on anything in the classroom.

I used electronic classroom observation forms to collect data. Employing prefigured techniques, which according to Rossman and Rallis (1998) carefully specify and keep the focus on specific events and activities of observations, I took ethnographic field notes about instructional activities; the content, structure and pacing of the lesson; questioning, thinking skills; classroom management and environment; student-teacher interactions; and reading materials. Each observation took 90 minutes. I used a laptop to record the observations, which had two components: running records, which were descriptive, and observer comments (Rossman & Rallis). I edited field notes shortly after each observation. This method enabled me to do some preliminary analysis of data.

A week after I finished the last two observations, I interviewed Martha to explore her perceptions of students' creativity and giftedness. I used a semi-structured interview protocol (Seidman, 1998) that featured questions about creativity, giftedness, and her classroom

practices. These 25 minute interviews took place in two sessions. They were tape-recorded for later transcription. Because I wanted to explore her beliefs about certain topics, I developed interview questions based on my previous observations and my theoretical framework. I asked open-ended questions and frequently asked follow-up questions for clarification and elaboration on some ideas or concepts. Seidman (1998) maintains that this method of asking questions for elaboration and clarification enables the researcher to better understand and make more accurate interpretations. After analyzing my first interview, I had the opportunity to ask for more clarification and elaboration on issues discussed in the first interview.

Data Analysis

To analyze the classroom observation data, I applied an "ongoing analysis" (Rossman & Rallis, 1998). This process continued throughout the study. I read and edited my field notes after each observation and wrote analytic memos. This intense process enabled me to become familiar with the data. Observation forms helped me to analyze data in a more organized way.

First, I transcribed the interviews verbatim. Then, I underlined interesting, important, and salient concepts, phrases and ideas. Afterward, I coded these through a coding system as described in Rossman and Rallis (1998). For each idea, concept or phrase that had meaning I assigned two numbers; one for page number, one for idea number. For example the concept "freedom of expression" was represented by 2/4 or 2/5. Here, the first number represents an idea, and the second one is the page number. This method of coding enabled a more accurate analysis of data.

After coding and listing concepts, phrases and ideas, I developed a "Conceptually Clustered Matrix" (Miles & Huberman, 1994) that included concepts, phrases and ideas as the first column, categories as the second column, and themes and patterns as the third column. A basic principle in a conceptually ordered display is conceptual coherence according to Miles and Huberman. I used the "Concept Development Strategy" of Hilda Taba's Critical Thinking strategies (Maker & Nielson, 1995b) to bring together items that were related and to establish conceptual coherence and to develop categories and themes. This critical thinking technique strengthened the process of data analysis. How-

ever, I also reviewed principles of qualitative data analysis described by Miles and Huberman to check the appropriateness of the technique for qualitative data analysis.

Concept Development Strategy consists of five steps: *listing*, *grouping*, *labeling*, *subsuming*, and *recycling*. The first step, *listing*, involves differentiating relevant from irrelevant information. Through this step, I listed all useful and meaningful information (concepts, phrases, and ideas) such as "linear thinking" and "free thinking." The second step, *grouping*, involves the cognitive task of analyzing similar attributes and putting items together on the basis of these similarities. For example, "imagination," "fantasy," and "piggyback" could go under one group as "*fostering creativity*." Through this step, I identified multiple attributes of items with open and flexible thinking, and then developed categories. The third step, *labeling*, requires abstracting and synthesizing to find an appropriate word or phrase to express the relationship or commonality among diverse items. Through this process, I was able to label each category with a suitable name like "*creative self*." In the fourth step, *subsuming*, the thinker has another opportunity to analyze different relationships and attributes of items. By applying this step, I transferred some items from one category to another as well as copied some items from one category to another category because of common relationships. For example, the term "curiosity" was used under both the category "*creative self*" and "*creative versus uncreative self*." At the last step, *recycling*, I recycled all previous steps, which helped me to look at data from different angles and promoted openness and flexibility.

Integration of observation notes into coded interview data was another step in the analysis. During this process I looked at linkages between these two data sets, and combined them to make meaningful connections. For example, while I was reporting Martha's beliefs about imagination, I infused her classroom practices of imagination into my writing.

I used three of Lincoln and Guba's (1985) recommend techniques to establish the credibility of a qualitative study: use of more than one method to collect data (Triangulation), external checks on the inquiry process (Peer Debriefing) and direct tests of findings and interpretations with participants (Member Check). I used interview and observation methods to collect data (Triangulation). After I transcribed tape-

recorded interviews, Martha examined the transcribed interview and made some changes (Member Check). However, she did not examine my analysis. Meanwhile, some graduate students examined the interview data (Peer Check), which helped me in coding and analyzing ideas from multiple perspectives.

Results

The Meaning of Creativity

Martha used three concepts to express her beliefs about the meaning of creativity. The first was "perceive," the second was "act," and the third was "impact." She considered creativity a three-dimensional construct, one being "perception" by seeing and understanding or perceiving the complexity of the outer world; the other being "action facet" by acting to accomplish a purpose such as adaptation to a new environment; and the last was "impact facet" by coming up with something that had impact. She expressed her beliefs about the first one as "How one sees the world and perceives it" while she elaborated on the second facet as "what people can do to make the world interesting, innovative, different, and original, and also put a new twist on it." Explaining the third facet of creativity she said, "coming up with a newer idea or manner that is unusual."

Creative Self

Martha used the concepts "unique, original, unusual, innovative, impressive, different, and interesting" many times while depicting a creative student. Creative children go beyond what they have read or what they have been told, think outside the parameters of what is normal, and come up with original thoughts. However, these ideas are not always original but help students grow and expand. She distinguished between creation and recreation while underlying "uniqueness and originality." She said that some of her students wrote unbelievable stories they claimed were their own but were not. According to her, they have seen these stories so many times in fantasy books, and they were just recreating those presentations. Also she stressed that it was very hard for students to draw the line between what has been presented to them in books and what was an original thought for them. However, she did not see this recreation to be "an overkill"; rather, it helped

develop original ideas. That is, students elaborated on existing stories or figures and modified them from the original form. In fact, they sometimes rewrote fantasy stories.

While she was portraying the most creative student in her classroom, she accentuated the student's imagination, expressiveness, different perspectives, and original ideas.

She tries to create and think of new ideas and ways to think of things...she is very expressive and can create a story that is extremely expressive in so many original ideas...she did a story that she created from a paper skeleton and she had the viewpoint of how the world looked to this little paper skeleton.

This student was in 4th grade and was 10 years old. In my observations, I noticed the student's critical thinking while she was evaluating current events like "freedom" and "terrorism" from very different perspectives. She said, "We also need to take another point of view if we want to make a fair decision... I mean those people... I mean, we think they are terrorists." However, staying within the structure of the classroom was difficult for her. The student sometimes seemed very bored and disinterested in activities even though the program was differentiated for the gifted. On the other hand, she was at times very expressive and could hardly contain herself, frequently interrupting the teacher. While Martha was describing her, she pointed to the nonconformity of this student as well as others. According to Martha, the most creative children found it the most difficult to stay within the structure of the classroom or programs:

Sometimes they are labeled "trouble makers" because the parameters that they have to work with are very difficult for them to be within the structure, and they often do not work well with other children because they have very definite ideas of how things should be.

Creative versus Uncreative Self

Martha distinguished between two concepts as representations of thinkers. The first one was "linear thinkers." According to her, linear thinkers are those who cannot go outside of their parameters and are not productive. This group could include the gifted who are not creative. On the other hand, the cre-

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ative student is “a free thinker” who can think outside the box and generate many ideas. Further, she differentiated between the creatively gifted and gifted by the term “imaginative intelligence.” From her point of view, the creative student has certain imaginative intelligence that results in creative work. She said that those who turn out to be the greatest have to be both gifted and creative. Martha considered Einstein as an example with his popular saying, “Imagination is more important than knowledge.”

Another distinction Martha made between the creative and the gifted were the “personal assets” that each individual has. From her perception, people are born with certain personal assets that make some more creative than others. People who have difficulty opening their minds and thinking outside the lines can be helped to develop their creativity. She articulated that people are born with or without the aptitude. Yet without this aptitude, it can be developed, “but it is within a person.” She thought that creativity was within the self; “creativity comes from insight.” According to Martha, insight, personality, and emotional intensity play significant roles in creative personality. While talking about the most creative student in her classroom, she described that student as the most “emotionally deep.”

Martha also emphasized the term “curiosity” while making distinctions between the creative personality and the uncreative one. She did not find many bright children curious, “...they see things in black and white, and it is difficult for them to see it any other way... but they are academically gifted and I see other kinds.”

Fostering Creativity: Extension of the Content in a Welcoming Classroom

Reading. Imagination and fantasy had very important places in Martha’s teaching. She expressed her thoughts about how she integrated these into her teaching while practicing regular curriculum. What they did in the classroom was the extension of an idea; that is, the students used the content in creative

ways. They discussed important and broad ideas while connecting these ideas to their fantasy world. They read books on fantasy; they talked about the idea of fantasy and creativity and how things were different. I observed that these fantasy and science fictions were some major activities integrated into the contents of the Language Arts class. For example, I saw that students were excitedly discussing the books *Shape Changer*, *A Wrinkle in Time*, and *The Hobbit*. They analyzed each character and event in the stories. The following questions that Martha asked seemed to create an interactive atmosphere in the classroom: How was the main character’s personality reflected in this story? How would this story end if the main character had a completely different personality? What would you do if you were the main character? What would you predict happens next? Martha stated that these kinds of activities challenged students’ minds, “...they think outside the parameters. I think we do this by just imagining things that are unusual, so imagining is good.”

Other learning activities that Martha thought fostered students’ creativity were current events, the use of newspapers, journals, magazines, and book reports. She practiced these activities through whole-class discussions, panel discussions, presentations, independent study and individual projects. Martha differentiated the instruction while teaching current events. For instance, after students read passages and news about Martin Luther King, Martha connected the topic to real world problems as an extension of an activity to promote students’ creativity. They not only had discussions about Martin Luther King but also about civilized people, civil wars, and civil rights. “They explored the true meaning behind Martin Luther King Day,” said Martha.

Creative writing. Another activity implemented to extend an idea was creative writing and connecting writing to real life. Martha believed that the more children read and wrote the more their minds expanded. In addition to personal narratives, which were the part of regular curriculum in the school, her students were writing mystery stories by imagining and writing essays, poems, and research reports. In short story writing, they created their own characters, problems, and events. Martha sometimes prompted students by asking, “How would you rewrite this story if you were the author?” Then, the students rewrote

stories by replacing characters, times, and places. Some stories turned out to be completely different. Then, they discussed “what changed what?” That is, what kinds of key changes caused important changes in an original story? Martha further explained the importance of imagination and fantasy. According to her, imagination and fantasy activities presented students different worlds because they piggybacked on ideas. Martha said,

They read a book [of] a new land or something of that nature, then I give them a day and a time, where I now say “you create your own land” and the people you have in it and what would you do?

Another extension of the content was the “vocabulary enrichment.” Using contextual word analysis technique, the students discussed meanings of words integrated in texts. They examined relationships between words, ideas, and events such as color-ethnicity-discrimination, and discrimination-civil war-civil rights. They found synonyms that could replace a word in the text, and discussed how some synonyms could change the meaning of a sentence. Afterward, they reviewed some concepts by analyzing their grammatical structure such as civil-civilized-civilization; and segregate-segregated-segregation. Martha encouraged the students to use the concepts in their writings they learned. She asked them how the concepts *civilization* and *segregation* are related. A student promptly responded:

When a country has no civil rights, people get discriminated... I mean segregation happens in that country... You know there was discrimination in our country years ago... Black people were segregated... because they had different color. They did not have the same civil rights. Today, we are equal... I mean we are civilized.

Another day Martha connected creative writing to real life matters. She elicited students’ prior knowledge about civil rights and world problems. Students were assigned to write essays posing solutions to real world problems. Martha encouraged the students to use a variety of information sources such as library books, journals, magazines, newspaper, Internet, and other electronic sources. The students wrote about world peace, segregation, nuclear weapons, and terrorism.

Classroom Environment

Martha promoted students' creativity through modifications in process and classroom environment in addition to the changes in content. She used the concepts "freedom, discovery, independence, and higher levels of thinking" while describing an ideal classroom environment. During my final visit to her classroom, the class was discussing an independent research project. The students were supposed to work independently on a project of their choice. Although they had predetermined choices of topics, they were free to find their own topics as well. Some topics were the judicial system, religions, sound, brain, heredity, stock market, and dreams. Students were free to use various modes of investigation such as interviews with adults, research at a library or visit to local public institutions. They could use any kind of materials that could help them in their projects and to use a variety of formats for their final products such as an essay, a biography, a research report, or a piece of art that symbolized their ideas.

"Time for independence is very important," said Martha. During the last minutes of each class, students worked independently on their individual projects by searching through books in the classroom library and using computers to search the Internet or to type their reports. Martha usually circulated in the classroom to monitor students' involvement in tasks. She directed the students to help each other instead of seeking help only from her. Martha said, "Students evaluate their own ideas as well as others when they work together or help each other in their projects."

From Martha's perspective, an ideal classroom was one with no time limits, more independent study, fewer prescribed tasks, and was less structured. "Students who have certain imaginative intelligence find basic tasks very redundant, and they do not go over these tasks. That time would be better spent by themselves creating a new task," said Martha. According to her, in an ideal classroom a teacher must be a facilitator.

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Discussion and Conclusion

In the results section, I described Martha's comments about creativity and giftedness and what occurred in her classroom. In this part of the article, I will discuss Martha's beliefs about creativity, giftedness, and her classroom practices; therefore, a subjective interpretation of her beliefs and practices will come into view in the rest of the article.

Martha considers creativity a human behavior such as perceiving, doing, and acting that brings about "change" in human life. The key to the final product is the concept "change." This is an original and unusual change, and must make an "impression" on people. She also stressed the creative process while distinguishing between an academically gifted and a creatively gifted child. Metaphorically, she said, "academically gifted students see things in black and white, but I see other kinds." What Martha said about the creative process resembles Mednick's (1962) Free Associative Theory, in which creative ideas are the result of bringing together remote and seemingly unrelated ideas.

Creatively Gifted

In distinguishing between the creative and the gifted, Martha pointed out several factors such as imagination, curiosity, emotional intensity, insight, and personality, which are considered in the field of creativity as resources (Gardner, 1993; Sternberg & Lubart, 1991; Piechowski, 1991; Piirto, 1998). The terms that she used to elucidate the distinction between gifted children and creative children actually seem to distinguish between creatively gifted and academically gifted children. She believed that creative children are those who are "free thinkers" and have "imaginative intelligence" whereas academically gifted children lack this type of thinking. They, on the other hand, have the capacity to manage information and are outstanding academic achievers, but may not be productive. In a sense, the concept "imaginative intelligence" is similar to the concept "creative intelligence" (Lubart, 2003), if not the same.

Personality is an essential factor contributing to creativity from Martha's perspective. She expressed her beliefs about the importance of personality by saying, "creativity comes from insight." The creative child is emotionally very intense. Accordingly, this intensity

makes insightful work. The creatively gifted child is very curious about things with which they have little or no experience. By the same token, Piechowski (1991) describes primary intensities in Dabrowski's Overexcitability Theory, in which intellectual overexcitability, imaginal overexcitability, and emotional overexcitability play important roles in the formation of the creative self.

Teaching for Creativity

In practice, Martha's students discuss world problems like freedom, peace and civil rights, and imagine things that enrich their fantasy worlds, while mastering the content. Martha tries to implement activities that spur higher cognitive skills through learning to write poetry, personal narratives and essays decorated with similes, metaphors and imaginative expressions. Although Martha uses a variety of activities and modifies these activities to foster students' creativity, her classroom does not reflect the same use of teaching models such as Creative Problem Solving, Hilda Taba Teaching Strategies Program, and The Autonomous Learner Model (Maker & Nielson, 1995b).

Martha did not stress peer evaluations, although they constituted another kind of activity provoking critical-evaluative thinking. The students evaluated their own products through proofreading, revision, and panel discussions. These evaluations usually occurred in a whole-class discussion, while the students made comments on each paper.

Creative Products

While Martha was describing creative products, she emphasized the quality of ideas or work that one produces. What makes an idea or a product creative is the extent to which ideas are original, novel, unusual, and have the potential for "impact" or "impression." Her understanding of creative work seems similar to those of theorists of creativity in some ways (Csikszentmihalyi, 1997; Gardner, 1993; Guilford, 1968; Simonton, 1997). Both Martha and creativity theorists emphasize originality and usefulness aspects of creative work; however, Martha also sees "the potential for impact" and "impression" as important facets of creative work. Her definition of creativity differs from some definitions mentioned in creativity literature.

Runco (1990) states that such expressions as "think of things that no one thinks; come up with your own

ideas" that Martha uses are provocative for children's creativity. These explicit instructions to ignite students' creative responses based not only on quality but also on quantity of ideas are good practices to implement. Although Martha considers quality and quantity as important in products, the statement "outside the parameters of what is normal" that she used often indicates that she attaches more importance to the quality of products. Thereafter, her instructions usually seemed to foster students' original thinking.

Obstacles to Creativity

In previous research Morgan and Forster (1999) reported that time constraints were one of the obstacles to creativity. Likewise, Martha believes that the time limit on thinking and strictly structured classrooms that provide no independence are major barriers to students' creativity.

Conclusion

Teachers' implicit theories of creativity and their classroom practices to foster it should be investigated in more detail by researchers through in-depth interviews and observations with a large sample of teachers. In this study I found that Martha's beliefs about creativity directly affected her classroom practices to foster students' creativity. This conclusion does not imply any generalizations of the findings of this study; rather, it implies that one's beliefs are very important in shaping classroom practices. As I observed how differentiated curriculum interests and stretches gifted and creative students in Martha's classroom, I concluded that future research should focus on the classroom reality to uncover teacher practices that better serve this population.

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