This paper examines the nature of creativity and the nourishing of children's creativity. One definition of creativity focuses on two of its aspects, of novelty and usefulness. Other definitions that stress one or the other of these aspects are discussed. According to M. Rhoades (1961), the four components of creativity are: (1) people—their traits and characteristics; (2) the thinking process they use; (3) the products or outcomes they produce; and (4) the nature of the environment in which creativity occurs. Teachers who wish to foster creativity in children must discover the individual child's interests and talents and establish an environment that promotes the expression of the child's interests and talents. Teachers should develop a sensitivity to observing traits that indicate creativity. These traits include flexibility, originality, openness, risk-taking, curiosity, imagination, independence, and tolerance of ambiguity. Environmental barriers to creative expression include lack of freedom, inappropriate reward systems, and insufficient resources and time. Environmental stimulants to creative expression include freedom, sufficient resources and time, enthusiastic management, a nonthreatening and collaborative atmosphere, recognition and reward, and challenge. An appendix lists 12 suggestions for establishing an environment conducive to creativity. A 12-item reference list is provided. (BC)
Finding Creativity for Children

by

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I was passively glancing through papers my daughter had brought home from school. Revkah was in the second grade and just learning cursive handwriting. The reading unit grade was an S (satisfactory) instead of her usual E (excellent). What could be the problem? I started to investigate the assignments. The answer to one of the multiple choice was train. She had circled 'train' and then was required to write it on the blank space provided. In her childish cursive, she had put an extra peak on her r. The r was circled in red with a great big X and S on the top of the paper. Several of the pages contained minor handwriting infractions. This lowered the entire unit grade even though the answers were right.

What is the Problem?

On the surface, the problem is that the teacher’s evaluation procedures defeat an important goal. That goal is the nurturing of children’s creativity and ability to express themselves in writing or any other medium.

What makes creativity an important value? Some experts say that our ability to think is what separates us from the animals. In the book of Genesis in the Bible, God created the heavens and the earth. To create seems to be something that stems from the divine. A creative process takes us away from the ordinary, the mundane and the lowly. We can think new thoughts and make new things. Life does not have to be
only for existence.

How does a teacher's grading procedures depress the goal of teaching expression? When a child's work is abruptly dismissed, he will generally conclude that he has failed. With repeated failures, he will often stop trying altogether. The special education programs in our schools have multiple cases in which the student failed in the early grades, and then lost the confidence to keep trying.

A low achieving student can be marked by his peers and teachers as being somehow inferior to the rest. One consequence of this lost social status can be anger and rebellion acted out in a variety of ways including dropping out of school, passive non-participation in activities, or even involvement with crime. Teachers may not enjoy or appreciate the mess, the noise, the uncomfortable questions, or even the extra time it takes to get involved with creative behavior, but the outcomes could be tremendous and the alternative does not give us much hope. What a tragedy to not have the benefit of one of our most precious resources, the hearts and minds of our own children!

Creativity plays a large part in the existence of the human race. Since the first cave men scratched drawings of animals and plants on their walls, people have not stopped creating and discovering. Up to this very minute thousands of hard working, intelligent people are causing the very fabric of our world to continually change because of the
rapid pace of new creations and new discoveries. Machines that are much faster and can store much more data have obsolesced computers that are only three or four years old.

What is creativity? In other words, what is the essence of creativity? What are the main components of creativity? What environment allows creativity to grow and flourish? Are there practical applications to give teachers and parents insights into nourishing creative behavior in children? This paper will attempt to explore these questions somewhat. In order to answer the question, What is creativity? we'll first look into some definitions of the term. Second, we'll look briefly at the components of creativity. In other words, what are the things that must be present in order for creativity to occur? Finally, we'll focus on an analysis of some of these components to find some practical applications for educators to consider for classroom use. This is addressing the original problem stated earlier. If teachers' instruction and evaluation procedures have defeated the goal of nurturing children's creativity, what can they do to change that? The conclusion of this paper will not deal so much in identifying who are the gifted, but what are the elements useful for teachers to cooperate with the goal of nurturing all children's creativity? Much research has been done to identify and study extremely gifted and creative individuals.
But from these studies, what are the practical applications that can be used to encourage the talented and creative natures in every child?

**Definitions of Creativity**

The continual theme in studying creativity definitions is that there is no one agreed upon definition. The descriptions are many, but in reviewing various types of definitions, we begin to gather a sense of the essence of creativity.

Dr. Scott G. Isaacsen, Director of the Center for Studies in Creativity in Buffalo, New York says that although there are hundreds of definitions of creativity, and some seem to conflict with each other, there does seem to be some agreement about the essence of the term. In a study conducted by the Center for Creative Leadership, Greensboro, North Carolina, two themes emerged from descriptions of creativity. These two themes were novelty and usefulness. The resulting definition of Creativity was, "Novel associations that are useful."

Even the dictionary definition incorporates both the inventive and practical natures of creativity. The World Book Dictionary states that "create" comes from the Latin creare, which means "to make a thing which has not been made before," "to bring into being." The word creative has a threefold definition: 1. having the power to create,
inventive, productive, 2. approaching the realm of art, imaginative, artistic, literary 3. constructive, purposeful, involving something useful or worthwhile.

Let's continue to explore more definitions of creativity and look for both aspects of novelty and usefulness. The fact that there are numerous definitions of creativity are evident in an unpublished 1960 report to Dow Chemical Company titled Definitions and Criteria of Creativity by a researcher, L.C. Repucci. The investigation found some 50 or 60 definitions of creativity. The report even divides definitions into six main types or classes. If there were 50 or 60 definitions in 1960 when the study of creativity was still new, there could be literally hundreds thirty years later.

There are some examples of creativity definitions that are aesthetic in nature. These deal with the more innovative aspects. These definitions are uplifting and rather fun, such as: (Torrance, 1979)

- Creativity is digging deeper.
- Creativity is looking twice.
- Creativity is crossing out mistakes.
- Creativity is talking/listening to a cat.
- Creativity is getting in deep water.
- Creativity is getting out from behind locked doors.
- Creativity is plugging in the sun.
- Creativity is wanting to know.
Creativity is having a ball.
Creativity is building sand castles.
Creativity is singing in your own key.
Creativity is shaking hands with the future.

E. Paul Torrance also quotes George M. Prince in the Practice of Creativity.

"Creativity is an arbitrary harmony, an unexpected astonishment, a habitual revelation, a familiar surprise, a generous selfishness, a vital triviality, a disciplined freedom, an intoxicating steadiness, a repeated initiation, a difficult delight, a predictable gamble, an ephemeral solidity, a unifying difference, a demanding satisfier, a miraculous expectation, an accustomed amazement."

Torrance cites S. J. Parnes as stating, "The essence of creativity is the notion of the 'aha!' - the fresh and relevant association of thoughts, facts, and ideas into a configuration which pleases. It has a meaning past the sum of the parts and provides a synergistic effect."

Torrance (1979) himself likes to describe the moment of enlightenment by using a Japanese term. He calls this the search for Satori. Satori is the moment of enlightenment. The moment when a person says to himself "aha!", "Eureka", I found it. This sudden flash of enlightenment in the Japanese concept comes after long periods of preparation, training, and practice, just as a great chef discovers a totally new
recipe for a gourmet dish after years of work and study of the culinary arts. Likewise, in the Japanese sense, children would probably not be candidates for Satori because of their need for training and practice before they can become expert at any particular task or art form. Children are, however, creative and imaginative. This needs to be encouraged and fostered. The wonderful curiosity and imagination of any child is potentially a natural resource for the future.

All these definitions support the notion that the creative act is novel. What are some of the aspects that make creativity useful? Industry is looking for creativity and it rewards innovations if they are marketable. I recently submitted an idea for an educational manipulative to a company called International Product Design at their office in Washington, D. C. They are open to new inventions and help inventors in patent searches, final technical design, manufacturing and marketing of a new product. Before they are willing to start this process, they study the idea for its marketability. They study the potential market, the trend of demand, the product life cycle, product line potential, learning needed to use the product, the public need for the innovation, along with recommendations on promotion and advertising. Some the marketability appears to be determined by its usefulness to the public in general. Even in the fine arts, the success of the creativity is
determined largely by public acceptance of the art form presented, remembering the old story of the starving artist who invariably becomes a success after he dies.

The old phrase, necessity is the mother of invention is often true. George Washington Carver discovered over 300 uses for the peanut after he encouraged southern farmers to grow them to put back nutrients into soil that had gone bad after years of tobacco crops. The farmers needed a market to sell their peanuts. Carver prayed for God’s help, and began discovering the many uses for the peanut.

Creativity is useful to society, but it is also useful to the individual. The process itself is absolutely invigorating even when it entails long hard work. Experts generally agree that understanding and using creativity can be psychologically and physiologically healthy. (Isakaen, 1992) Creativity comes naturally to children. A child of 4 or 5 years old is not the least bit inhibited about drawing pictures and distributing them to anyone, but somewhere along the line as children get older, learning and creativity often become stifled. Often by the time a child is 12 or 13, he is ‘bored’ and complains that he doesn’t have anything to do. So what can be done? What are some things that teachers and parents can do to encourage the nurturance of the potential in children?

First, let’s look at the major components present with
creativity, then analyze which components are necessary in the training of children.

M. Rhoades who wrote "An analysis of creativity" for Phi Delta Kappan, (1961) reported after collecting 60 common definitions of creativity, "as I inspected my collection I observed that the definitions are not mutually exclusive. They overlap and intertwine. When analyzed, as through a prism, the content of the definitions form four strands. Each strand has unique identity academically, but only in unity do the four strands operate functionally."

The four strands to creativity according to Rhoades were people, their traits, characteristics, or attributes; processes, operations or stages of thinking they use; products or outcomes they produce; and nature of the environment, context or situation which he calls the press. These four "Pa" have been made into a Venn diagram by Isaksen to show the four strands as operating together. (Isaksen, 1992)

![Diagram of Productive Approaches to Creativity](image)

This model of the creative process is useful and interesting in general, particularly for industry in analyzing components of creativity in the training of adults. But for children, the actual product they produce may not yet be so important, even though the work they produce at school
is constantly being evaluated. At their age, even though they must be trained and educated, the important thing to preserve in them is the precious quality they already possess. That quality is the natural imagination, the freedom to be creative, and the confidence that whatever the outcome of their efforts, they will succeed.

The essential components for fostering creativity in a child have to do with finding the interests, talents, and potentials that rest inside the individual or "person", and providing the context, situation and environment called the "press." There are many "processes" to help foster and stimulate brainstorming for adults, and there are numerous materials for teachers to use in creativity exercises for children. I checked out around 13 books at the Shared Information Services (SIS) at Purdue University that were full of nothing but lessons and exercises to foster creativity in children. Even though this may be considered part of the press, in context of training children, the creative lessons are still part of providing the situation, context and environment for a child's personal potential to be realized. Therefore, I see the most important elements in the context of training and nurturing a child so he can realize his destiny to be first the person, and secondly the press or environment.

In reading numerous examples of backgrounds of creative persons, time and again the comment was made that during
childhood training of a particular skill, for some reason one child would seem to emerge as the one who's a talent was evident and blooming. In a family where all children were provided piano lessons, after a while, one child in the family caught on more than the rest. In a family where all children were on a swim team, one particular sibling would emerge as the star. (Bloom, 1987) Often, the parents would concentrate all their efforts, dreams and hopes on the one particular child that showed promise. At times, even in the midst of great personal suffering and sacrifice, no expense or effort was spared in the training of the "special" child. (Goertzel & Goertzel, 1962) Studies do not indicate particularly what actually became of the other children in the family. Some parents later expressed regret that the other children were not given the attention accorded to the "star" of the family. (Bloom, 1987) Hopefully other children in a family with a talented star for a sibling can also find their own potential and use them even if they don't lead to fame or eminence.

What are characteristics of the creative personality? J.P. Guilford (1950) wrote, "Creative personality is... a matter of those patterns of traits that are characteristic of creative persons. A creative pattern is manifest in creative behavior which includes such activities as inventing, designing, contriving, composing, and planning."

Other characteristics of being creative include:
fluency, flexibility, originality, elaboration, openness, capacity to make order from chaos, risk-taking, curiosity, complexity, imagination, independence, and tolerance of ambiguity. Isakaen (1992) suggests that predicting creativity in people involves examining aspects of personality, motivation, as well as characteristic sets or patterns of behavior.

The most important aspect, however, for teachers to consider as they train children, is the environment. For my purposes, I put the press and process together into one category because the training provided for children is entirely wrapped up in the environment in which they are being trained. The attitudes and climate in which training is given affects how that child will respond and grow in the God-given qualities he already possesses. This excludes the small 2 1/2% of unusual people that are so resilient that they continue to flourish and perform outstandingly despite
terrible conditions. (Bloom, 1985) The great composer Ludwig Van Beethoven is an example of that kind of resiliency. The exceptionally gifted are hindered when they are subjected to various negative influences such as poverty, family dysfunction, and racial or gender prejudice. Joyce VanTassel-Baska reported this happening in her research report titled "Research on Special Populations of Gifted Learners". (1991) She says, "As one reviews the literature on special populations it is evident that our systems of education are ill-prepared to identify or serve these populations of gifted learners well. We are organized to serve groups, not individuals."

This is not to say that all human suffering or difficulty destroys creativity. On the contrary, some amount of suffering and difficulty can enhance art. Novelists from the south after the Civil War wrote sad but poignant works that touch the world. (Goertzel & Goertzel, 1962) As Dr. S Samuel Shermia observes, suffering in the original Latin meaning had to do with patiently enduring, not necessarily pain or agony. (Shermian, 1992) Even in the midst of trial, individuals can be nurtured in their own personal quest for achievement. An example of this can again be found in the life of George Washington Carver.

Carver had to persist in the face of terrible racism in order to finally be accepted into college and work his way
through by washing laundry. Nevertheless, in childhood he was raised by kindly people who allowed him to go to school, something not common at the time. Even though an orphan, he grew during the formative years in a nurturing environment that allowed him to later "talk with the flowers."

There can be internal blocks to creative thinking including such characteristics as lack of self-confidence, or self-image, a tendency to conform, or a need for the familiar. These things may be extremely difficult to overcome in an adult, but a child is much more likely to respond to positive and encouraging influences in order to surmount such obstacles.

What is the environment in which creativity can flourish? The Center for Creative Leadership (Burnside, Amabile & Gryskiewicz, 1988) found some organizational barriers to innovation. A few are lack of freedom in deciding what to do or how to approach a task, inappropriate reward systems, insufficient resources, and insufficient time.

This same research project identified some stimulants to creative climate including: freedom in deciding what to do or how to accomplish the task, sufficient resources, management exhibiting enthusiasm for ideas, creating a generally non-threatening and open environment, a collaborative atmosphere, a sense that creative work will receive appropriate feedback, recognition and reward, sufficient time, challenge due to the
intriguing nature of the problem, its importance, and a sense of urgency internally generated.

The Center for Studies in Creativity in Buffalo, NY uses dimensions of creative climate studied by Goran Ekvall of the Swedish Employment Security Council. These include: Challenge and motivation, Freedom, dynamism or liveliness, trust and openness, idea time, playfulness and humor, conflict, idea support, debates, and risk-taking. (Isaksen, 1992)

Isaksen gives a list of suggestions synthesized from work done by many research scholars. This list is in the appendix. These suggestions are recommended to help form an atmosphere conducive to creativity and innovation. These lists have been applied to adults in the work place, but they can also easily be adapted to working with children.

All of these lists are similar in nature. Some of the specifics are different, but the main essence of both suggest freedom, openness, acceptance, and reward. Of course children need to have guidance and supervision. No one is suggesting that they be allowed to run wild, but the whole concept of freedom to try new ways of performing tasks, allowing individual differences, giving individual control, and providing an open, safe atmosphere by supporting new ideas of an individual help promote motivation for a student to work, learn, and explore in his area of interest.

All children need a tremendous amount of encouragement. They don’t know for sure what their capabilities are except
to gauge them by what others say of them. We all have heard of the heart-breaking story of some kid who was told he was "stupid", and somehow just believed it for the rest of his life. I personally know of a man in his 60's. His family, including adult children, worry over him and his own lack of belief in himself.

I remember my own struggle to learn how to sing. As a young college student, I was an advanced piano student, but I wanted also to sing. Because of my piano skill, I was always relegated to accompanying. In a choir I heard "You sight read? Here, you sing alto" or better yet "Will you sing the tenor part?" After voicing my desire to sing, one voice teacher told me, "Sure, we'll take your money." Learning to sing became a struggle. My vocal skills were years behind my musical knowledge. Finally, singing for a jury in my senior year, one of the judges wrote, "a beautiful voice". That was all. Through continued years of struggle and training I continued to hang on to that one phrase. It kept me going when I was discouraged. Now as a private voice instructor myself, I try to remember to look for ways to give sincere support to any seed of greatness in each student. They are more than compliments and 'soft fuzzies'. They are an earnest quest to find the treasure in that person and expose it for him.

So often in public school, creative things are done to or for the students, yet they are still not allowing them to
explore on their own. Teachers work hard at good classroom
skills to present a creative, original lesson. Lovely things
are being done with theme teaching. Lately I have observed a
classroom where the class has tried to make the room into a
forest, complete with a tent, picnic table, mural, and
pretend camp fire. Schools are trying new reading programs,
incorporating educational computer, and using programs to
bring in parents and aids to help tutor. In other words, the
schools and teachers are trying to be creative, but often the
child’s activities and tasks are still completely structured
for him, allowing him little time or chance for any self-
initiated projects.

Our second grader last year kept getting in trouble for
socializing after getting her work done. I would ask her,
"Can’t you get some books, puzzles, or draw a picture when
you’re finished with work?"

"No," she replied, "We have to sit down and lay our
heads on our desks."

Maybe she was exaggerating. I hope so.

What are the implications of applying this list? There
may be more difficulty in applying standardized grading and
testing. There would be more work for the teacher in all
that individualization. There could be more noise and more
mess, since the list suggests tolerating complexity and
disorder at least for a while. But it could also be a lot
more fun.
Substituting at a public school recently, I decided to depart slightly from the scheduled lesson. It was music class. Children were barely mumbling the assigned songs as they quietly sat with their song books at their seats. "Okay children," I said, "Let's pretend we are pioneers in the days when this song was written..."

We danced and whooped the rest of time to "Get along home, Cindy, Cindy..." It was noisy and roudy. I may never be asked to substitute at that school again, but as those students left, there were pink cheeks and smiling faces. "That was cool" or "Let's be a pioneer again" were passing comments as they lined up to return to class. It was reward enough for me.

What are some implications of applying the list for shaping creative atmosphere? We may have children not afraid to fail, children confident of success, children who continue to be curious past adolescence, and children who enjoy exploring, discovering, and learning into adulthood. Eventually, as a society we may actually harvest a larger talent pool from an adult population grown up in such an environment. The world could benefit from such a population.

Obviously, not all children are equally talented or equally intelligent. Many are talented in some areas of study, and weak in others. A few are talented in many areas, but every child regardless of his or her intelligence and talent, deserve to be given an environmentive to
fostering his abilities. Every child deserves to be told what he is. How will he know if we don’t tell him? We spend much time correcting mistakes and expounding on what needs to be improved, but the child needs to know the positive things about himself. A child is likely to act out the very things we tell him about himself.

At the close of observing student teachers this spring, I wrote them this final message:

You are good teachers. You have talent and compassion. Remember: Students will not remember you so much for what you taught them, but for what you showed them about themselves. They will view themselves partly from how you perceive them.

There are so many negative stimuli invading children today. Do all you can to feed them positive images about themselves. They need to know. They are discovering who they are. Help them in the process. An A, B, or C on a paper doesn’t communicate that much.

They need to hear things like:

"You are really good at...."

"You have a flair for ..."

"You were a great help today."

Look for something good to tell a child about himself. The confidence he gains may help him a long way in life.
Appendix

1. Provide freedom to try new ways of performing tasks; allow and encourage individuals to achieve success in an area and in a way possible for him/her; encourage divergent approaches by providing resources and room rather than controls and limitations.

2. Point out the value of individual differences, styles and points of view by permitting the activities, tasks or other means to be different for various individuals.

3. Establish an open, safe atmosphere by supporting and reinforcing unusual ideas and responses of individuals when engaged in both creative/exploratory and critical/developmental thinking.

4. Build a feeling of individual control over what is to be done and how it might best be done by encouraging individuals to have choices and involving them in goal-setting and decision-making processes.

5. Support the learning and application of specific creative problem solving techniques and skills in the workplace and on tasks which are appropriate.

6. Provide an appropriate amount of time for the accomplishment of tasks, provide the right amount of work in a realistic time-frame.

7. Provide a non-punitive environment by communicating that you have confidence in the individuals with whom you work. Reduce concern of failure by using mistakes as positives to help individuals realize errors and meet acceptable standards and provide affirmative feedback and judgment.

8. Recognize some previously unrecognized and unused potential. Challenge individuals to solve problems and work on new tasks in new ways. Ask provocative questions.

9. Respect an individual’s need to work alone or in groups. Encourage self-initiated projects.

10. Tolerate complexity and disorder, at least for a period. Even the best organization and planning using clear goals requires some degree of flexibility.

11. Create a climate of mutual respect and acceptance among individuals so that they will share, develop, and learn cooperatively. Encourage a feeling of interpersonal trust and teamwork.

12. Encourage a high quality of interpersonal relationships and be aware of factors like: a spirit of cooperation, open confrontation and resolution of conflicts and the encouragement for expression of ideas.
References


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