

# Developing Creative Abilities in Adolescence

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**T**HE rapid changes in our space age leave us bewildered and somewhat unsure about what tomorrow may bring. Yet we can be sure that in the future our society will place a higher premium on man's ability to develop and to use his creative talents.

Creativity has been defined by many writers, and most of their definitions include such terms as originality, curiosity, imagination, ability to sense problems, formulate hypotheses, and communicate the results. Creativity has also been defined as a successful step into the unknown, getting away from the main track, breaking out of the mold, being open to experience, and seeking new relationships.

Thoughtful educators today are following the lead of J. P. Guilford<sup>1</sup> and E. Paul Torrance<sup>2</sup> in experimenting with teaching procedures that hopefully will stimulate and develop the creative abilities found in all children.

The Living Arts Center in Dayton, Ohio, is designed to develop creative abilities in elementary and secondary school students by giving them, after the normal school day, opportunities for experiences in creative writing, dance, music, drama, and the visual arts. The Center, supported by Title III of the

Elementary and Secondary Education Act of 1965, uses such instructional methods as individual projects, small group discussions, and trips to cultural events.

Regular teachers are assisted by local artists who serve as part-time instructors. Students and faculty have been stimulated by face to face meetings with such guest artists as Lorin Hollander, John Ciardi, and Agnes Moorehead, who on occasion spend a week at the Center performing, lecturing, and demonstrating their special talents for the students at the Center, the regular schools, and the general public.

### **A Study of Creativeness**

A two-year longitudinal study to determine the effectiveness of the program has just been completed. This study was conducted by selecting both an experimental and a control group from students in grades 7 through 10, on the basis of their performance on Torrance's "Things Done on Your Own Checklist," a 99-item index of creative abilities which asks children to indicate if they have written poems or stories, kept a daily record of the weather, made up new games, or the like. The groups were also matched for sex, grade in school, and school attended.

The results indicate that students participating in the program significantly increased their creative abilities when com-

<sup>1</sup> J. P. Guilford. "Creativity." *American Psychologist* 9: 444-54; 1950.

<sup>2</sup> E. Paul Torrance. *Guiding Creative Talent*. New York: Prentice-Hall, Inc., 1962.

pared to the control group on selected dimensions of creativity.

Specifically, both male and female students in the program engaged in a greater number of cultural activities, both as spectators and as participants, than did the control group.

To determine the program's influence on thinking abilities, students were also tested on three aspects of creative thinking: ideational fluency, originality, and sensitivity to problems. Ideational fluency simply means the number of ideas that can be generated in a given amount of time, in response to a stimulus. On this test, the Categories Test by Cattell, students were asked to list things that are red or more often red than any other color.

Originality was determined by using Guilford's Plot Title Test, which requires the student to read a short story and then write as many appropriate titles as possible. Responses related to originality are clever comments which focus on the essence of the plot, comments that are uncommonly stated or stated with neat brevity, or responses that structure the information in the plot.

Sensitivity to problems was measured with the Apparatus Test by Guilford, which requires recognition of practical problems and suggested improvements such as structure revision, or use or operation of the structure.

Members of the experimental group significantly increased in their creative thinking skills when compared to members of the control group, with females gaining in ideational fluency, males gaining in sensitivity to problems, with no significant differences between experimental and control groups in originality.

Another dimension of creative abilities tested was esthetic sensitivity as measured by the Barron-Welch Art Scale. Barron's research has demonstrated that esthetic preference is related to rapid personal tempo, verbal fluency, impulsiveness and expansiveness, independence of judgment, originality, and

breadth of interest. People scoring low tend to be rigid and to control their impulses by repression. Only the girls in the experimental group earned statistically higher scores on the Barron-Welch Scale when compared to the control group.

## Self Perceptions

Probably the most important finding of this study is the differences in self perceptions between the experimental and control groups. Both male and female experimentals see themselves as more curious, having greater imagination, more resourceful, more expressive, more confident, more independent, and more ingenious than members of the control group.

The results of this investigation indicate that the Living Arts Center program has influenced its students to become more involved in cultural activities, increase the creative thinking abilities of ideational fluency and sensitivity to problems and esthetic preferences, and develop a sense of personal identity that is characteristic of creative individuals. The implication of this study for educators is that special programs that focus on developing the creative behavior of children can help them develop abilities and self understanding that in the past, with conventional programs, may have developed in a random way or may not have developed at all. Clearly the task for education today is to identify and nurture the human abilities that are required to paint a great picture, to compose a symphony, or to develop a space craft. The future of our society depends upon how well our educational system succeeds in this effort.

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