An Exploratory Study of Preschool Children's Freedom of Expression[1]

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Introduction

A study of preschool children's freedom of expression was undertaken as a pilot study of creative ability in young children. Basically, the problem in this area of research is one of identifying the factors comprising creativity in order that the potentially creative child be recognized. The problem then becomes one of discovering how this potential can be encouraged to full fruition.

Theory and research have contributed to the list of personality characteristics considered necessary for the expression of creative ability. One of these characteristics is the individual's freedom of expression. Here the supposition is that unless a person is free to express himself in exploring the objects and ideas in his environment, he cannot demonstrate creative ability. (e.g., Barron, 1955; Guilford *et al.*, 1957; Rogers, 1959; Torrance, 1962.) Beyond this, creative ability has been defined as a nonintellectual variable (Thurstone, 1950; Getzels and Jackson, 1960); therefore, a task measuring freedom of expression must be independent of intellectual ability and acquired skills.

Subjects

The subjects were children attending nursery school at Oklahoma State University. Only American born white children four years old at the time the research was initiated were included in the study. Subjects were selected in this manner in an attempt to eliminate the possible influence of cultural and age differences. Specifically, the subjects were 12 children, four boys and eight girls, ranging in age from four years eight months to five years five months.

The Research Instrument

A child's freedom of expression was determined by the variety of his play responses when given an opportunity to play by himself with a series of simple toys.

Criteria

Trial observations of individual children playing with a variety of toys served to clarify the criteria for the instrument. (a) The toys should be simple; play with them should be independent of intelligence and acquired ability. (b) The toys should be ones which could be put to a number of uses and which could be played with singly or in combination. (c) The toys should be ones with which the children have had little or no previous experience. (d) The research laboratory should be familiar to the children and should present no known opportunities for play other than play with the toys. (e) Social influences should be eliminated insofar as possible; the child should be alone with the toys.

Toys

The toys selected for the instrument were presented in two sessions. *Session A* consisted of (a) Small bottles filled with blue rubber dots

[1]Supported by the Oklahoma State University Research Foundation, State Project No. 128.

(b) Cork cubes and a pan of water; (c) Yellow wax discs and a pan of water; (d) Yellow wax discs and red rubber dots; and (e) Wooden train sections and red rubber dots. *Session B* consisted of (a) Wooden train sections and wooden blocks; (b) Toy school bus and wooden blocks; (c) Toy school bus and cork balls; (d) Pipe cleaners and cork balls; and (e) Round Block Stack (a Playskool Toy).

Half of the children were presented the Session A toys first, and half were presented the Session B toys first.

Procedure

Individually each child was taken to the research laboratory, a room with which he was familiar. In the room there was a small rectangular table with a chair at each end. Across the middle of the table was a strip of black masking tape. On the table were two simple toys, one at each end with the masking tape serving as a "psychological" barrier between the two. The child was told that he could do whatever he wanted to do with the toys. The experimenter then excused herself, ostensibly to get more toys, and went to an observation booth where she observed the child through a one-way mirror and dictated on a tape recorder a running record of everything the child did. When the child was through playing with one set of toys, the experimenter removed one of them and replaced it with a new toy. There was no time limit for the child's play; each had his own way of indicating when he was through. Some called the experimenter; some hid under the table; some looked out the window.

Scoring

The record of each child's play was transcribed and edited. Editing involved the condensation of elaborate details and the elimination of irrelevant material. The edited record was then scored. This consisted of giving each child credit for the number of different ways in which he played with the toys.

The directions for scoring were as follows: (a) Sensory experiences: One point for each different sensory experience in which the child may have learned something about the toy. This includes tasting, smelling, visually examining the toy, and manipulating or experimenting with it. (b) Active play: One point for each different unit of active play with the toy or toys. This includes dramatic play and games the child may invent. Merely moving the toy from one place to another is not considered active play. (c) Construction: One point for each different type of construction that is made with the toy or toys. (d) Combination: One point for combining the two toys in play at any time during the task.

Each child received ten raw scores, one for each set of toys with which he played. These raw scores were then converted into rank order scores, inasmuch as the instrument could be used only to determine the relative freedom of each child within the group being studied. The sum of the ten rank order scores was the child's "freedom score."

Validity

The research instrument was assumed to have "face validity"; that is, the relevance of the instrument to a child's freedom to express himself in exploring and manipulating his environment was apparent. Each child was given opportunities to play freely and his freedom in play was then measured; and in order to obtain an adequate sample of this freedom, each child was observed in ten different situations.

Reliability

Inter-judge reliability was first demonstrated during the trial obser-

vations. Four judges showed acceptable agreement in the scoring of 26 observations; there was no more than one point difference in their raw scores on 22 of the observations. One of these four judges who had no part in the data gathering, was then chosen to score the edited records in the final research. The records were also scored by a research worker who had observed the children and assisted with the editing. The coefficient of correlation between the judge's scoring and that of the research worker was $+0.929$ ($p < .01$).

The internal consistency of the instrument was demonstrated by a split-half correlation (Spearman-Brown formula). The coefficient of reliability was $+0.895$ ($p < .01$).

The instrument and the method of scoring were accepted as reliable.

Results

The "freedom scores" of individual children are presented in Table I. The range of scores from 20.5 (least free) to 97.0 (most free) shows that the instrument did discriminate among these 12 children. The scores obtained during each of the two sessions indicate that the children were not more free during the second session of play as might have been expected. Greater freedom was shown by half (six) of the children during the first session.

Relation of IQ's to Freedom Scores

Inasmuch as creative ability has been defined as a nonintellectual variable, the instrument developed to measure freedom of expression must be independent of intellectual ability and acquired skills. A comparison of freedom scores and Stanford-Binet intelligence test scores (Terman and Merrill, 1960) indicated a statistically significant negative correlation. (Spearman rank correlation coefficient, rho $= -0.715$; $p < .01$.) This significantly high negative correlation suggests that further research be done in order to determine the causes of this relationship.

Recommendations for Future Use of the Research Instrument

The research environment must be one in which the children feel as

TABLE I

DESCRIPTIVE DATA FOR INDIVIDUAL CHILDREN PARTICIPATING IN AN EXPLORATORY STUDY OF FREEDOM OF EXPRESSION: AGE, SEX, IQ, AND FREEDOM SCORE

(Ages are expressed in years and months)

Child	Sex	Age	IQ	Freedom Score
A	F	4-11	134	64.0
B	M	4-10	98	91.5
C	F	5-3	142	20.5
D	F	5-1	112	71.5
E	M	5-3	117	47.0
F	F	5-0	145	52.0
G	M	4-11	142	37.5
H	F	5-5	115	49.0
J	M	4-11	110	89.0
K	F	5-2	128	81.5
L	F	5-2	93	97.0
M	F	4-8	139	79.5

free as possible; therefore, an opportunity to become familiar with the laboratory and the experimenter must precede the use of the instrument. Data gathering can be limited to one session for each child inasmuch as no real increase in freedom was observed during the second session. Nine or ten different toys could be used, each being presented only once and thus providing the child with maximum opportunity for exploring and manipulating in the one session.

A study of the children's responses during the trial observations and during the final research indicated that certain toys are somewhat better suited for the instrument than others. A one-session series of toys is suggested as follows: (a) a pan of water and styrofoam balls, (b) a dump truck and wax discs, (c) cork balls and pipe cleaners, (d) red rubber dots and wooden train sections, and (e) Three Peg Playskool Toy.

The tape recorder proved to be most practical for detailed recordings. Objectivity in recording is essential and may be assured if two people, both of whom observe the children, serve as a double check in editing, thereby eliminating any subjective statements in the initial dictation. The scoring directions have proven to be adequate and should be retained.

In any future use of this instrument, one must remember that a child's freedom score indicates only his relative position in the group of children being studied.

Summary and Implications

A study of preschool children's freedom of expression was undertaken as a pilot study of creative ability. The instrument which was developed proved successful in discriminating among the children, and demonstrated marked differences in their freedom of expression. If one assumes that every child is born with some potential for expressing himself freely, then one must assume that the present study included children in whom this freedom had been encouraged and other children in whom this freedom still lay dormant or had been stifled. The findings suggest that this encouragement, and possibly the stifling, can occur before a child is five years of age; and therefore, a search for the factors which influence the development of creative ability should start with the early school years.

A significant negative correlation was found between freedom of expression and intelligence test scores, supporting the assumption that freedom of expression, like creative ability, is a nonintellectual variable. This negative relationship must not be interpreted as meaning that highly intelligent children lack freedom to express themselves, but it does indicate the advisability of research into the causes of the relationship which appeared in the present study. A hazarded guess is that the demands made on children for conformity and achievement may in some way inhibit their freedom of expression. A study in which the variable of intellectual ability is controlled could yield information about possible factors which influence the development of freedom of expression and, in turn, the development of creative ability.

LITERATURE CITED

Barron, Frank. 1955. The disposition toward originality. J. Abnorm. Soc. Psychol., 51:478-485.

Getzels, J. W., and P. W. Jackson. 1962. *Creativity and Intelligence.* New York: John Wiley & Sons.

Guilford, J. P., P. R. Christensen, J. W. Frick, and P. R. Merrifield. 1957. *The Relations of Creative-Thinking Aptitudes to Non-Aptitude Per-*

sonality Traits. (Rep. Psychol. Lab., No. 20) Los Angeles: University of Southern California.

Rogers, C. R. 1959. Toward a Theory of Creativity. In H. H. Anderson (ed.) *Creativity and Its Cultivation.* New York: Harper & Brothers, pp. 69-82.

Terman, L. M., and M. A. Merrill. 1960. *Stanford-Binet Intelligence Scale.* Boston: Houghton Mifflin.

Thurstone, L. L. 1950. *Creative Talent.* (Rep. Psychometr. Lab., No. 61) Chicago: University of Chicago.

Torrance, E. Paul. 1962. *Guiding Creative Talent.* Englewood Cliffs, New Jersey: Prentice-Hall.