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ABSTRACT

The purpose of the study was to develop a sequence of growth curves of creative productivity. The development of these curves resulted from the investigation of the interrelationships of the variables of creative productivity, college classification, academic potential, sex and perceived anxiety at the university level. The following battery of psychometric tests was given to 233 academically below average and average university students: (1) The American College Testing Program; (2) the IPAT Anxiety Scale Questionnaire; and (3) four of Guilford's tests of divergent production or thinking, specifically, alternate uses, associational fluency, word fluency and consequences. Results tended to support the positions of other researchers and writers, that present university environments do not promote or inhibit creative growth. The study also suggested that anxiety and creative productivity are not necessarily related. (TL)

CREATIVE GROWTH CURVES OF UNIVERSITY STUDENTS

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Purpose of the Study

Purpose:

The purpose of the present study was to develop from the obtained data a sequence of growth curves of creative productivity of the academically below average and the academically average university student. The development of these curves resulted from the investigation and analyzation of the relationships that exist between creativity, anxiety, sex, and the educational process at the university level. The study was specifically initiated to gain additional knowledge for the purpose of answering the question of whether exposure to the university environment would stimulate or inhibit the growth of creative productivity.

Previous studies which have attempted to study the developmental curves of creative productivity have been centered in the study of the elementary, secondary, or the college honors or graduate student. Even among the researchers in the area there is dissent. A number of writers in the field (14, 18) have indicated that education teaches people to repeat past performances more often than to create something new or even to prepare for new developments created by others.

The present study is an outgrowth of the research conducted by Yamamoto (20) and Torrance (19). Yamamoto produced developmental

scales which indicated a tendency for the child to gain in creative productivity until he reached the upper limits of high school. After high school there tended to be a decline in creative productivity in the adult population. Yamamoto's studies compared high school seniors with graduate students and found that high school seniors were more creatively productive than the graduate students(20). Bednar and Parker (3) in studying the honors student at Brigham Young University found that there was a tendency for a decrease with each successive year in college.

The present study is an investigation of the interrelationships of the variables of creativity productivity, college classification, academic potential, sex, and perceived anxiety; factors which have been suggested in previous studies as potential variables affecting creativity.

Procedures

Selection of subjects:

233 undergraduate students were randomly selected from a stratified population of 6, 319 students enrolled in East Texas State University during the 1966-67 academic year. The students were divided into three basic groups. Group 1 was identified as the academically average group. This group was composed of students whose ACT Composite Score was located within the 40-60 percentile range on local norms. Group 2, the academically below average group, was composed of students whose ACT Composite Score was at or below the 30th percentile on local norms. Group 3, composed of students nominated by the faculty of the university as possessing

exceptionally marked potential, numbered 43 students.

The study population consisted of the following subgroups: 51 freshmen, 63 sophomores, 67 juniors, and 52 seniors.

Procedures for collecting data:

All students participating in the study were given the following battery of psychometric tests: (a) The ACT (13); (b) the IPAT Anxiety Scale Questionnaire (4), and (c) four of Guildford's tests of divergent production or thinking, Alternate Uses (9), Associational Fluency (11), Word Fluency (11), and Consequences (10).

The level of academic potential for each student involved in the study was determined by his ACT Composite Score. Students whose ACT Composite Score was below the 30th percentile were identified as being academically below average. Students whose ACT Composite Score was between the 40-60 th percentile were identified as being academically average.

The level of creative productivity was determined by the response to four of Guildford's tests of divergent thinking.

The level of perceived anxiety of the subjects was determined by their performance on the IPAT Anxiety Scale Questionnaire.

Results of the Study

Creative Productivity: females

The present evaluation suggests that there is no significant difference in the level of creative productivity when academically below average university females, academically average females, and

instructor nominated creative university females are compared as to compared as to college classification, freshman, sophomore, junior, and senior. Thus, it may be implied that exposure to the university environment neither promotes nor inhibits the growth of creative productivity for the university woman.

Although the level of creative productivity is neither promoted nor inhibited during the four years of college there is a definite relationship between creative productivity and academic potential. The greater the academic potential the greater the creative productivity, see Figure VI.

Creative productivity: males

The results of the study of the creative productivity of university males are quite similar to the results found for university females. It was found that there is no significant difference when academically below average, and academically average university men were compared in relation to college classification. Thus, it may be implied that exposure to the university environment neither promotes nor inhibits the growth of creative productivity for the academically average and academically below average university man. As in the case of the female there was a definite relationship between the level of academic potential and creative productivity, see Figure V.

Creative Productivity: males vs. females

A comparison of the creative productivity of the academically average and the academically below average university male and female

produced no significant difference in creative productivity when the variable of sex was introduced, see Figures II and III. Although there was no significant difference found in the comparison of the university students on the variable of sex, the results indicated that the academically below average females tended to have a higher level of creative productivity during the first three years of college and only in the senior year was there a marked increase in the male dominance in creative productivity.

Thus it can be implied that sex is not a significant variable in the production of divergent thinking for the academically average and academically below average university student.

Perceived anxiety: males vs. females:

As suggested in Figures VI and VII, there was no significant difference found in the level of perceived anxiety when academically average and academically below average university males and females were compared.

Implications of the Study

1. The present study tends to support the position taken by the researchers and writers in the field that have suggested that present university environments do no promote creative growth. The present study implied that creative productivity was neither promoted nor inhibited in the academically average and below average university student.

2. The present study also suggests that contrary to Kubie's work (14) anxiety and creative productivity are not necessarily related.

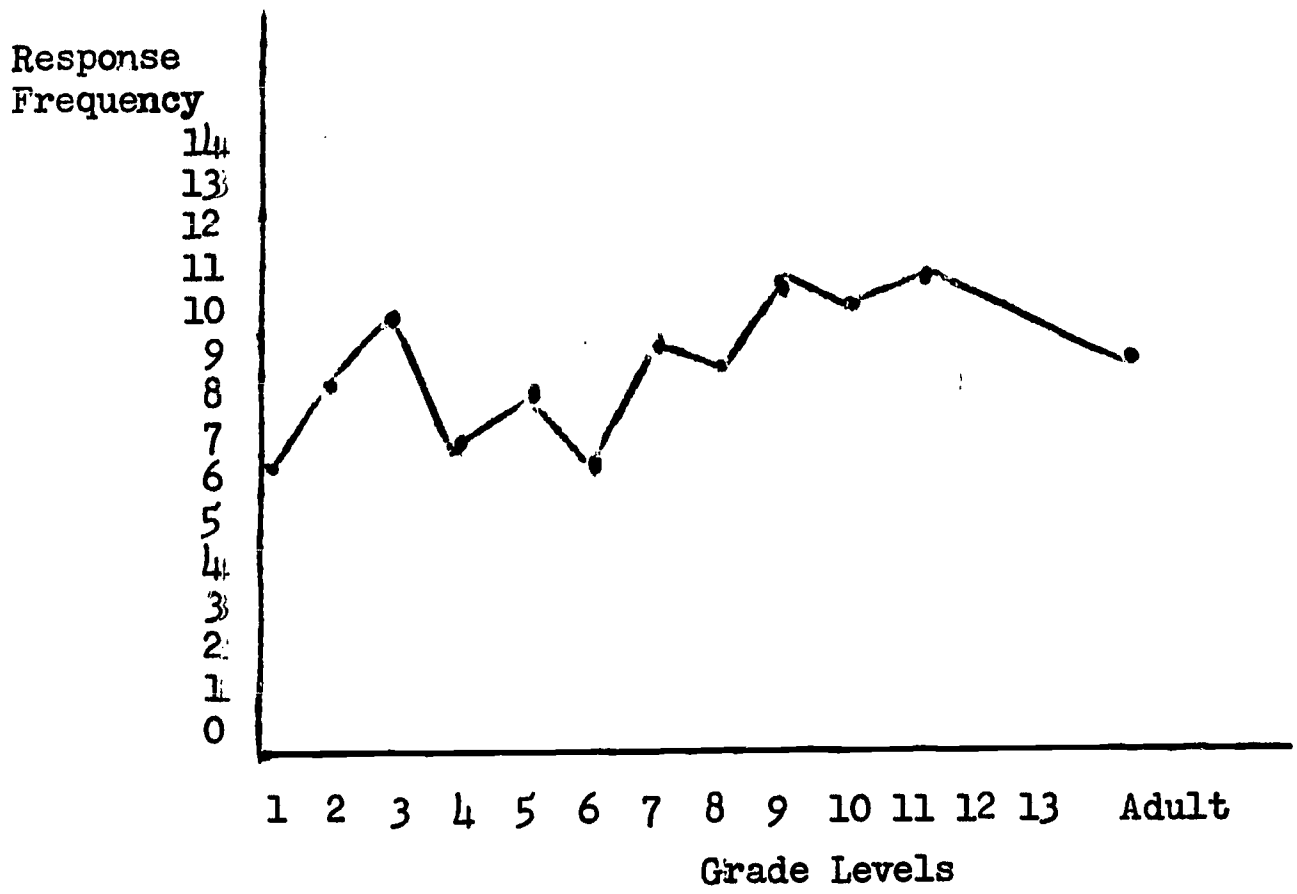

FIGURE I

CREATIVE GROWTH CURVES
(After Yamamoto)

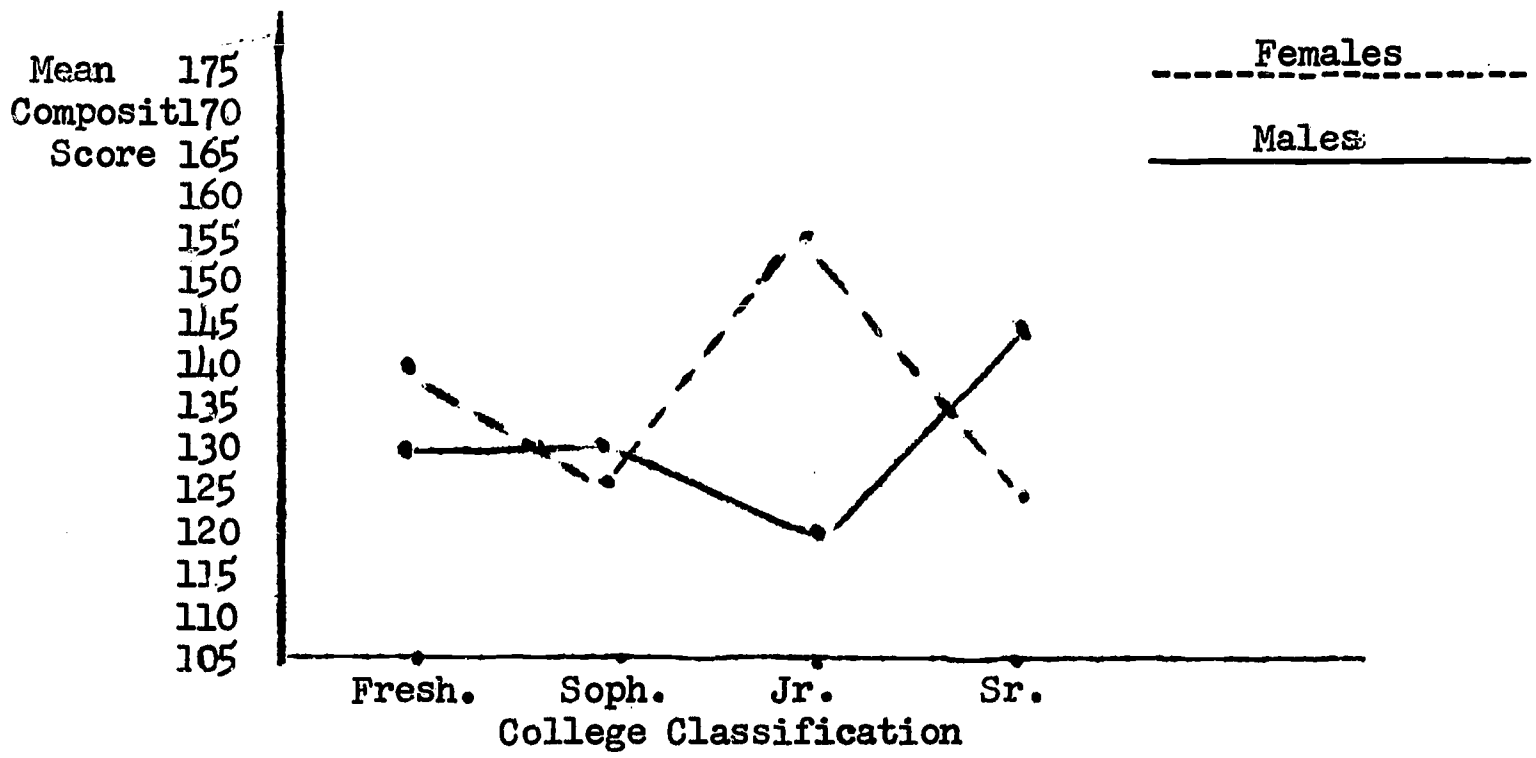

FIGURE II

COMPARISON OF CREATIVE GROWTH CURVES OF
BELOW AVERAGE UNIVERSITY MALES AND FEMALES

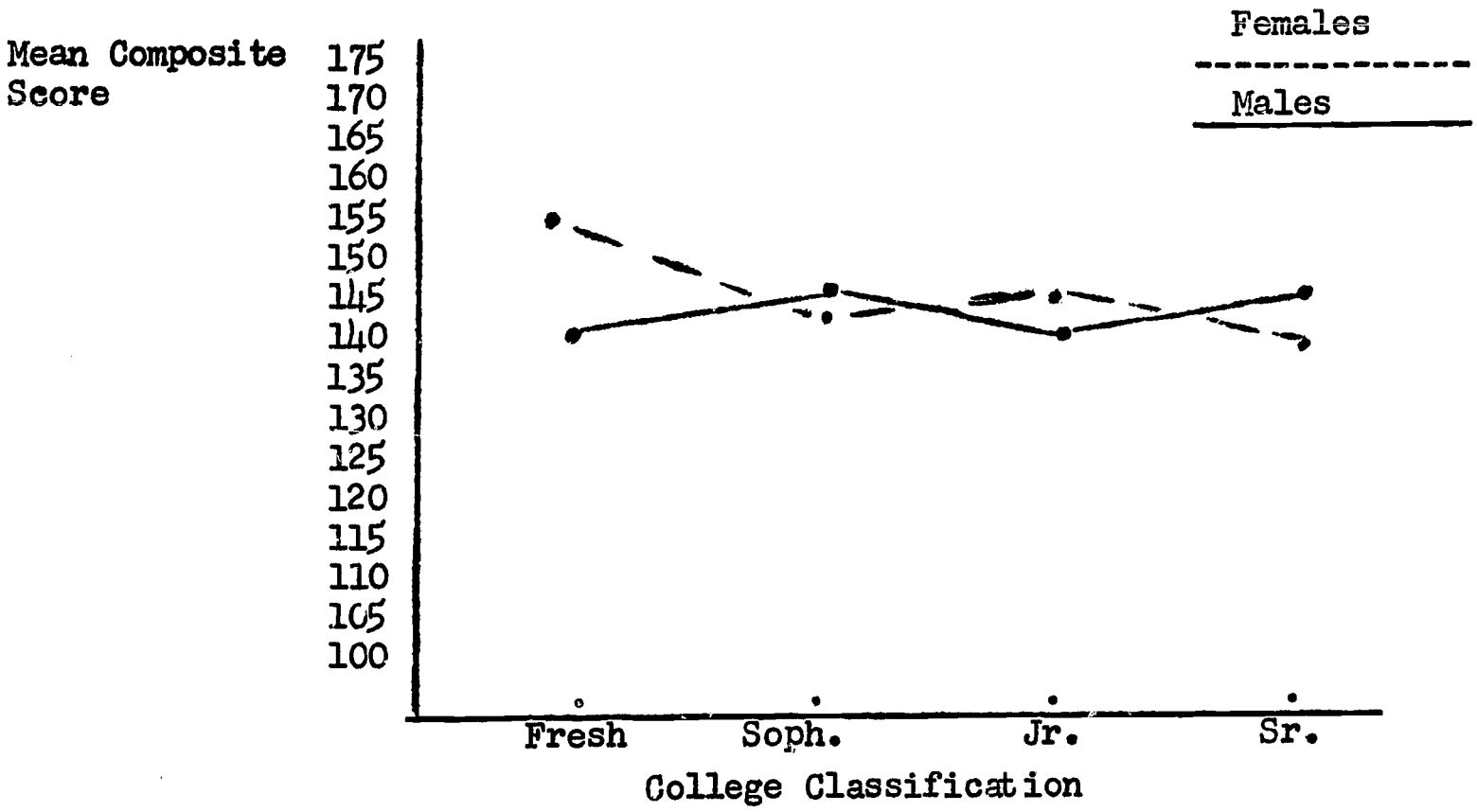

FIGURE III

COMPARISON OF CREATIVE GROWTH CURVES
ACADEMICALLY AVERAGE UNIVERSITY MALES AND FEMALES

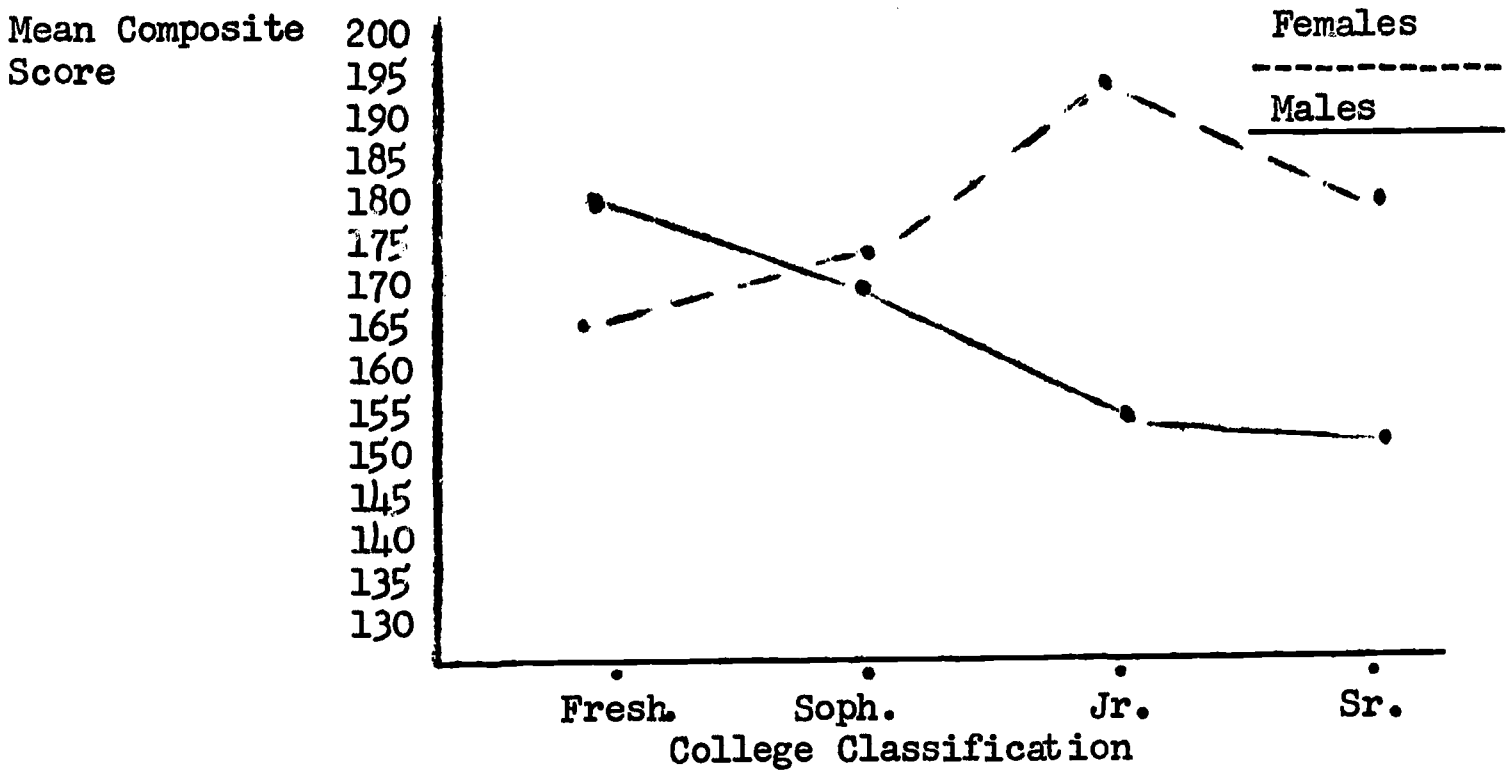

FIGURE IV

COMPARISON OF CREATIVE GROWTH CURVES OF
CREATIVE UNIVERSITY MALES AND FEMALES

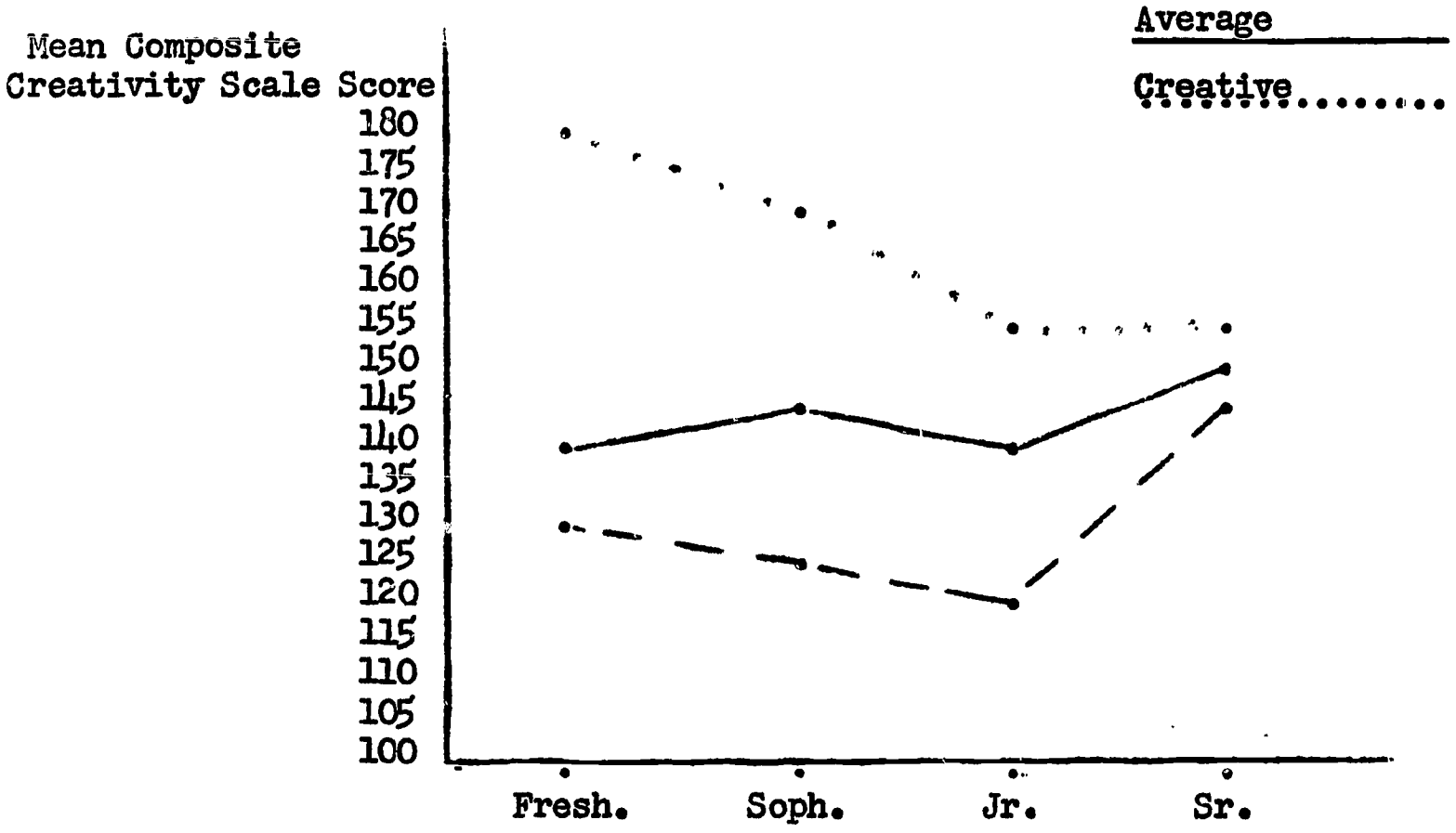

FIGURE V
CREATIVE GROWTH CURVES OF UNIVERSITY MALES

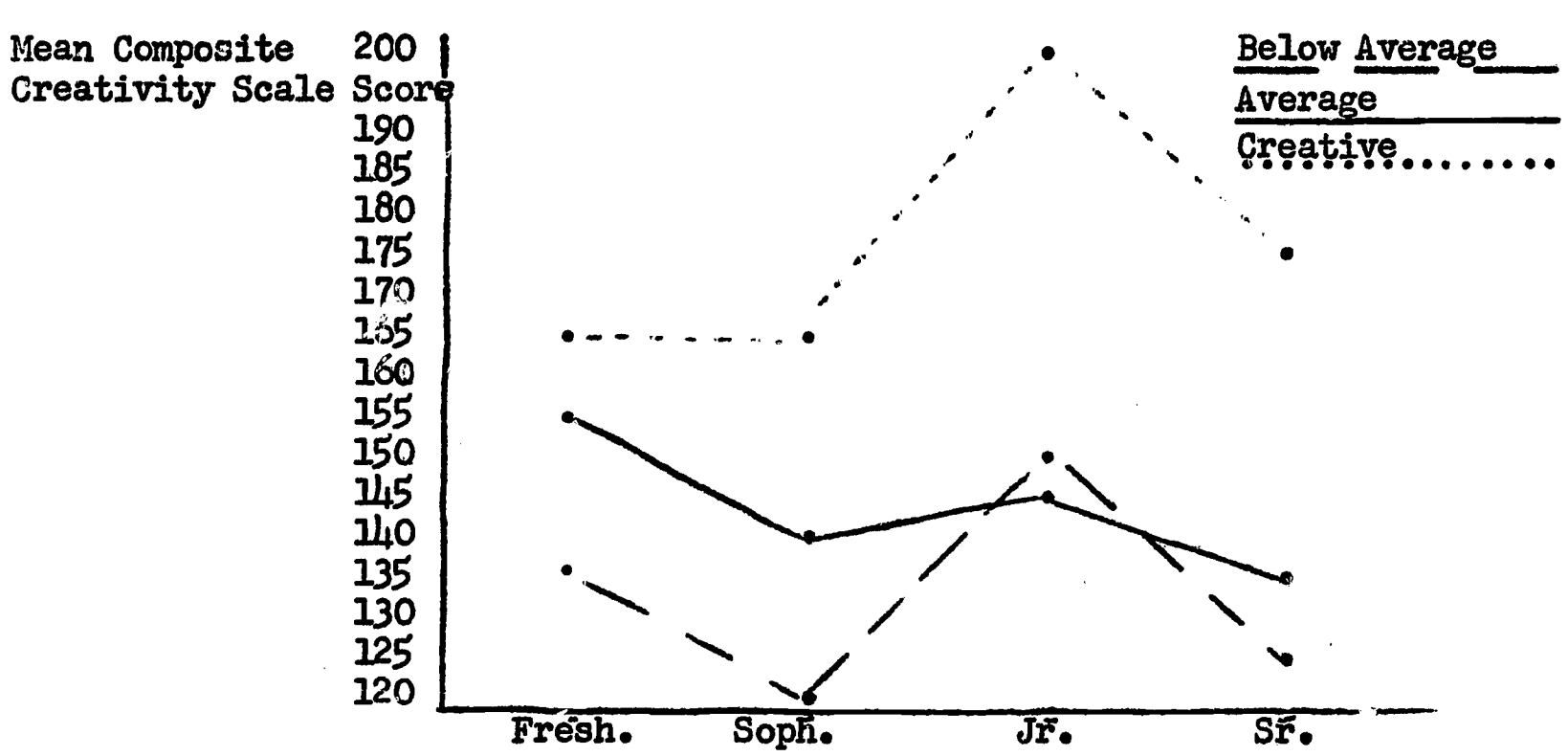

FIGURE VI
CREATIVE GROWTH CURVES OF UNIVERSITY FEMALES

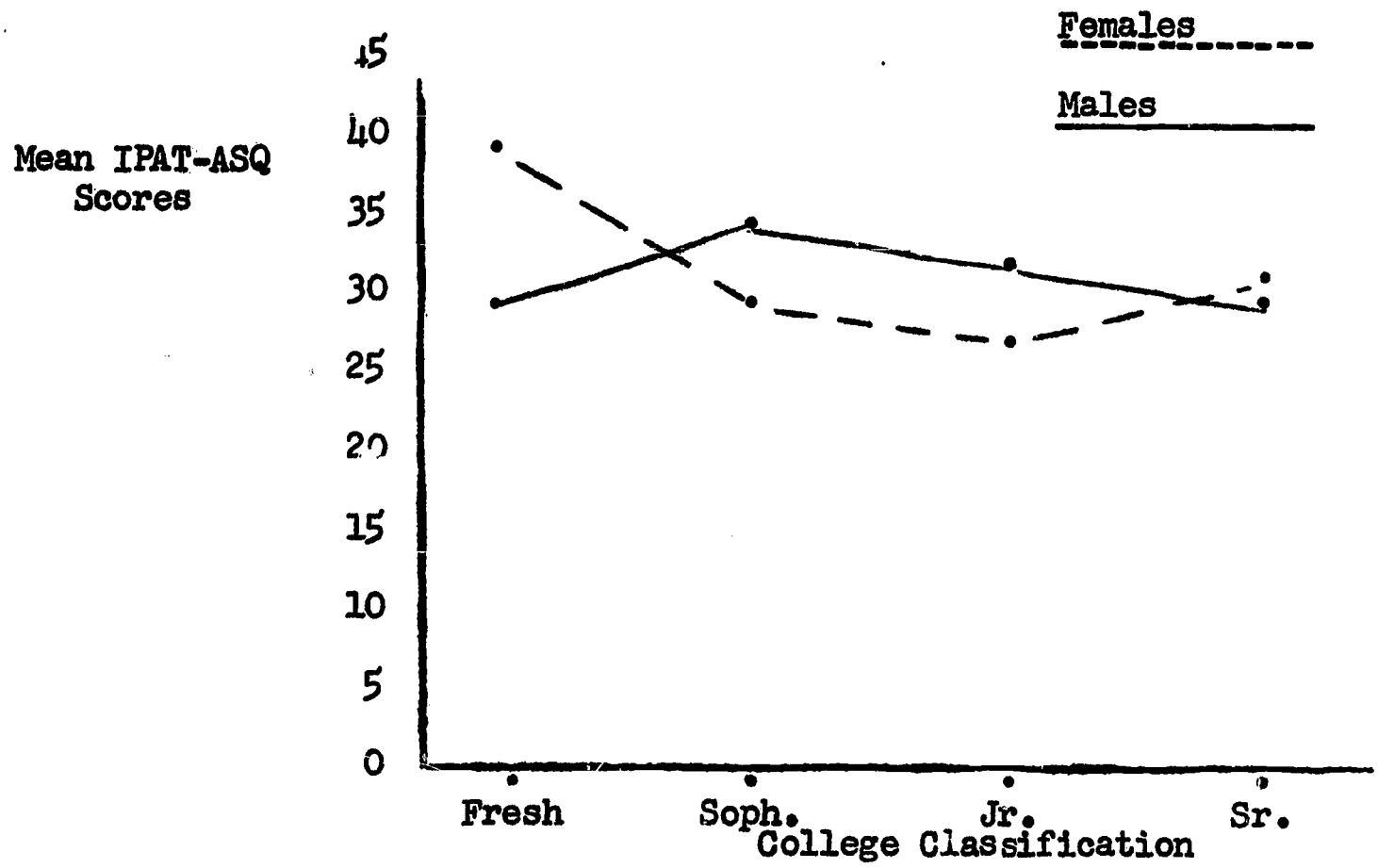

FIGURE VI
COMPARISON OF ANXIETY GROWTH CURVES OF
BELOW AVERAGE UNIVERSITY MALES AND FEMALES

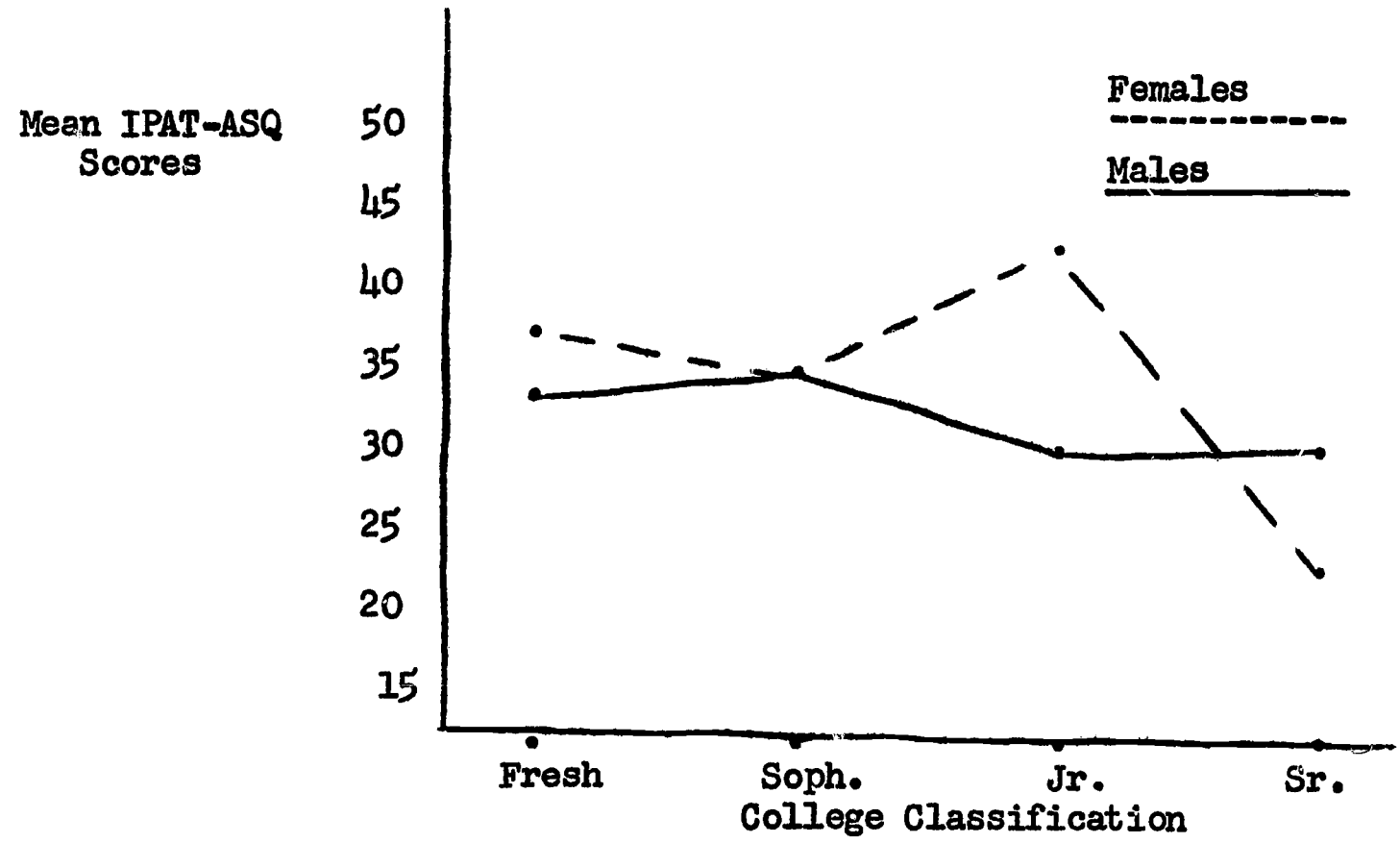

FIGURE VII
COMPARISON OF ANXIETY GORWTH CURVES OF
ACADEMICALLY AVERAGE UNIVERSITY MALES AND FEMALES

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