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ABSTRACT

This study investigated the effects of sex, status of occupational choice, and career development responsibility on the career maturity of ninth-grade students from an urban, industrial, integrated community. The instruments used were the Career Maturity Inventory (Crites), and the Career Development Responsibility (CDR) scale (Thomas). Results showed that the main effects of occupational choice and levels of the CDR scale were significant. Students who were able to state an occupational choice had more mature career attitudes than those who were undecided. Although the main effect of sex was nonsignificant, the interaction between sex and CDR levels approached significance suggesting that sex and level of career development responsibility may have differential effects on the development of mature career attitudes. (Author/EK)

THE EFFECTS OF SEX, OCCUPATIONAL CHOICE AND CAREER DEVELOPMENT RESPONSIBILITY ON THE CAREER MATURITY OF NINTH-GRADE STUDENTS[1]

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Locus of control of reinforcement (Rotter, 1966) is a concept describing a person's percieved source of power or influence in his life. On the internal end of the continuum, a person believes that rewards follow from or are contingent upon his behavior, while an externally oriented person believes that rewards are controlled by forces outside himself and thus occur independently of his own actions. This construct, conceptualized by Rotter as a generalized expectacy variable, has been found to be multidimensional (Stephens & Delys, 1973) and thus is probably more appropriately defined in terms of expectancies in specific situations.

Locus of control has been found to be predictive of academic performance (e.g., McGhee & Crandall, 1968; Gozali, et al., 1973) particularly for disadvantaged males (Coleman, et al., 1966). As in academic achievement, performance in job preparation, acquisition, and performance situations has been found to be related to locus of control constructs. Studying vocational rehabilitation clients, Tseng (1970) found that internality was related to instructor's ratings of ability to work with others, cooperation, self-reliance, courtesy, reliability, care of equipment, safety practice, compliance with rules, work tolerance, and work knowledge. In addition, it was found that internals expressed higher training satisfaction.

Evidence that the locus of control orientation affects the ability to

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hold a job as well as job-seeking behavior is provided by Tiffany et al., (1970) who was able to differentiate between those who were work-inhibited (individuals who have had an uneven history of employment due to job-hopping or extended periods of unemployment) and those who had been work-inhibited but who were now rehabilitated and had been employed for one year. The work-inhibited individuals were found to be more external--feeling more control from others, as measured by the Rotter I-E scale.

Phares (1968) found that internally-oriented individuals made better use of information in problem solving situations. Internals also appear to be better able to learn and remember information that will affect future goals (Seeman, 1963; Seeman & Evans, 1962). Based on the above research findings, it was hypothesized that internally-oriented students would be more vocationally mature than would externally-oriented students.

Objectives of the Inquiry

This study was designed to investigate the effects of sex, status of occupational choice (decided vs. undecided), and responsibility for career development on the career maturity of ninth-grade students. More specifically, the objective was to determine whether there were significant differences in the mean scores on the Career Maturity Inventory (Crites, 1973) between male and female students, between students who have decided what occupation they wish to enter and those who are undecided, and between students who believe their career development is controlled mostly by external factors and those who believe that they control their own career development. Interactions among these factors were also explored.

Instrumentation

The instruments used in this study were the Career Maturity Inventory (CMI; Crites, 1973), the Career Development Responsibility scale (CDR;

Thomas, 1974), and a personal data sheet.

The Career Maturity Inventory attitude scale was developed by Crites to measure the maturity of attitudes critical to realistic career decision-making. These attitudes are considered to be developmental, from late childhood to early adulthood. Internal consistency coefficients for the norm group samples from grades six through twelve averaged .74. This coefficient was identical to the value obtained from the current sample. Also reported from the norm data was a coefficient of stability with a test-retest interval of one year, the r value being .71, which was considered adequate considering the developmental aspects of the variable. Validity of the instrument is based on the content- and criterion-related variables (Crites, 1973).

The Career Development Responsibility scale was developed to measure the degree to which reinforcements in terms of success in career preparation-acquisition-performance situations are considered to be contingent upon the subject's own behavior. The internal consistency coefficient was .67, which is approximately equivalent to a similar instrument measuring children's beliefs in their own control of reinforcements in intellectual academic achievement situations (Crandall, et al., 1965). Content- and criterion-related validity were established for the CDR.

Students also responded to the question, "What occupation do you plan to enter after you finish school? Be as specific as possible. If you have no occupational choice, then put 'undecided'". If a student listed any occupation, he was considered to have made an occupational choice.

Method

Scores for each subject were computed for the CDR and CMI using weights of zero and one. For the CMI, the response pattern for which is true-false,

the response indicating mature or adult behavior was weighted as one. The CDR was scored by assigning a weight of one to external responses and zero to internal responses; thus a high score was indicative of the belief in external control of one's development.

Factorial analysis of variance (Winer, 1962) was used to obtain the main effects of occupational choice, sex, and responsibility for career development. For the latter independent variable, subjects were divided into high (external), middle, and low (internal) based on their CDR scores. (The group was split into approximately thirds.) The Newman-Kuels technique of multiple comparisons was used where significant main effects or interactions involving more than two means were observed.

Population

The population consists of ninth-grade students from an urban industrial, integrated community. Students included in the sample were all ninth-grade students in attendance on the day data were collected. Subjects selected included 17% black and 83% white students. Percentages of males and females were 54 and 46 respectively.

Results

As shown in Table 1, the main effects of occupational choice and levels of CDR were significant at the .001 level. The main effect of sex was nonsignificant. Students who were able to state an occupational choice had more mature career attitudes than those who were undecided about their occupational hoice, the means being 32.97 and 29.50 respectively. A post hoc test of the means of the CDR groups computed at the .05 level of significance showed that low (internal) and middle CDR groups had significantly higher career maturity scores than the high (external) CDR group. Here the means were 32.80 for the low CDR group, 32.13 for the

middle CDR group, and 28.78 for the high CDR group.

Table 1 Summary Table for Analysis of Variance of Career Maturity

Source	MS	df	F
Sex (A)	49.32	1	1.70
Occupational Choice (B)	521.96	1	18.00***
Levels of CDR (C)	267.69	2	9.23***
A x B	2.80	1	.10
A x C	86.42	2	2.98
B x C	15.48	2	.53
A x B x C	29.07	2	1.00
Error	29.00	177	

***p .001

The interaction between sex and CDR levels approached significance (p=.053). It thus appears that sex and level of career development responsibility may have some differential effect on the development of mature career attitudes. Investigation of the marginal means in Table 2 shows that all of the male CDR group means fall between the middle and high female CDR group means. The level of career development responsibility (internality vs. externality) appears to have a greater effect on the career maturity of females than males. None of the remaining interactions approached the significance level.

Table 2 Marginal Means of CMI Scores by Sex x CDR Groups

CDR Group	Female	Male
Low	33.84	31.76
Middle	33.55	30.71
High	27.92	29.64

Discussion

The direction of the difference between the career maturity of male and female groups tends to confirm the results obtained by Smith and Herr (1972) that females have more mature career attitudes than do males. The mean difference for the present sample between male and female groups of approximately one raw score point was equivalent to that obtained by Smith and Herr but was not significant due to inadequate sample size or excessive error variance.

The higher level of career maturity exhibited by the students who were able to state an occupation they planned to enter when they left school as compared to those who were undecided appears to provide additional evidence of the validity of the CMI. This is true only if it is assumed that career mature sutdents should be those who have made a career choice. However, a student who has decided what occupation he plans to enter will undoubtedly respond negatively to CMI items such as "I'm not going to worry about choosing an occupation until I'm out of school" and will thus increase his career maturity score. If the reason for making the occupational choice becomes less important to the student, e.g., gaining a more independent attitude toward conforming to his parents' desires, the student's career maturity score may slump. This may help explain the low career maturity scores obtained by Crites (1965) for the eleventh grade norm group.

The locus of control variable measured in the domain of career development appears to have a similar effect on the development of mature career attitudes as intellectual achievement responsibility has on academic achievement. This suggests that mature career attitudes are either mediated by or develop concurrently with career development responsibility. Considering what is know about the relationship of the acquisition and use of information

in problem solving situations to internality, it is highly possible that locus of control does mediate the acquisition of mature career attitudes. Further research will, however, be needed to substantiate such a claim. It does appear that personnel implementing an educational or training program designed to enhance career maturity would be well advised to include more structure in the program for students who are externally-oriented than will be required by those who are internally-oriented.

The advisability of providing straightforward training in personal efficacy such as that provided in a psychological training session by Pierce, et al., (1970) should probably be approached with caution. The possibility that some students are defensive externals who place the blame for their failure on external forces such as fate, luck, and chance creates the moral dilemma of taking this defense away from them. More subtle approaches to reinforcing students' behavior such as assisting them to develop short-term occupational preparation goals and assisting them to know when they have achieved these goals may be an effective method of enhancing personal efficacy in the career development domain, and in turn, career maturity. In light of the interaction of sex and CDR levels, it may be of particular concern to give considerable attention to the high CDR level female. A further analysis is planned to determine the effect of planning to be a housewife as compared to planning to enter another occupation or being undecided on a career choice.

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