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ABSTRACT

The assessment of learning orientation in relation to academic achievement is a continuing interest among psychologists. Two studies investigated learning-oriented and grade-oriented behavior in relation to performance on traditional measures of academic achievement. In the first study, 313 college students completed the Omnibus Personality Inventory and the LOGO-II instruments. The LOGO-II yields both a learning orientation (LO) score and a grade orientation (GO) score. In the second study, several achievement measures were compiled for 53 high school seniors in advanced mathematics and physics classes: the Science Research Associates Achievement Tests scores, the Scholastic Aptitude Tests scores, grade point average, and a measure of career aspiration/expectation. Learning orientation was assessed by administering LOGO-II. Correlation coefficients were computed for all possible pairings of LOGO-II scores and the achievement measures. The results revealed significant positive correlations between learning orientation scores and all achievement measures with the exception of grade point average. Learning orientation also evidenced a significant positive correlation with consistency between career aspiration and career expectation. Future research should investigate whether an increase in explicit presentation of learning or process oriented behaviors positively influences students' achievement orientation and whether educational personnel effectively communicate the nature and significance of process-oriented behaviors to achieving students. (Author/NB)

Learning Orientation and Academic Achievement

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Running Head: Learning Orientation

Abstract

The assessment of learning orientation in relation to academic achievement is a continuing interest among psychologists. This study investigated learning-oriented and grade-oriented behavior in relation to performance on traditional measures of academic achievement. The research sample consisted of 53 high school seniors enrolled in advanced math and physics classes. For each student, the following achievement measures were compiled: the Science Research Associates Achievement Tests scores; the Scholastic Aptitude Tests scores, grade point average, and a measure of career aspiration/ expectation. Learning orientation was assessed by administering the instrument, LOGO-II, which yields both a learning orientation(LO) score and a grade orientation (GO) score. Correlation coefficients were computed for all possible pairings of LOGO-II scores and the achievement measures. Results reveal significant positive correlations between learning orientation scores and all achievement measures with the exception of grade point average. Learning orientation also evidenced a significant positive correlation with consistency between career aspiration and career expectation. The findings generate some interesting questions. Can an increase in explicit presentation of learning or process oriented behaviors positively influence students' achievement orientation? Can educational personnel effectively communicate the nature and significance of process oriented behaviors to achieving students? Such questions merit further investigation.

Learning Orientation and

Academic Achievement

The development of a learning orientation within our highly product oriented society is an extraordinarily complex endeavor. A variety of contemporary programs emphasize a motivation orientation which attempts to develop high-level performers by programming frequent success and praise (Brown, Palincsar & Purcell, 1984). However, research on the effectiveness of the motivation orientation clearly establishes that success and praise for achieving relatively easy tasks will not produce stable confidence or persistence (Dweck, 1975) and may have the counter effect of lowering confidence in one's ability (Meyer, 1982; Meyer et al., 1979). Success in developing achievement and confidence has been demonstrated in programs which consistently challenge students within a learning orientation (Andrews & Bebus, 1978;Chipman, Segal, & Glaser, 1983; Fowler & Peterson, 1981; Relich, 1983; Schunk, 1982). The issue of process versus product orientation is addressed by Milton, Pollio, & Eison (1986) as they report on a comprehensive, nationwide survey of patterns of achievement for learning-oriented versus grade-oriented students. In an effort to extend the findings of Milton, Pollio, & Eison, this study investigated learning-oriented and grade-oriented attitudes and behaviors in relation to performance of secondary school students on traditional measures of academic achievement.

Method

Subjects for the first experimental situation were 313 students at a comprehensive, undergraduate university of 10,000 students in the Southeast. The students were enrolled in introductory psychology courses; however, they represented programs of study within all five colleges within the university. Standard ethical and methodological procedures were observed while administering the Omnibus Personality Inventory and the LOGO-II instruments.

Subjects for the second experimental situation were 53 secondary school seniors enrolled in a rural public school system in the Southeast. A primary consideration in selecting the Subjects was the probability that they would be attending college. Twenty-four students were enrolled in an advanced math class and twenty-nine in a physics class. For each student, the following information was compiled: sex, four SRA scores, two SAT scores, and grade point average. Standard ethical and methodological procedures were observed while administering an occupational data sheet and the LOGO-II instrument.

Results

Within the first experimental situation, each Subject produced scores for learning oriented attitude (LOA), grade oriented attitude (GOA), learning oriented behavior (LOB), grade oriented behavior (GOB), total learning orientation (TL), and total grade orientation (TG). These scores were derived from Subject's responses to LOGO-II.

By responding to the Omnibus Personality Inventory, each subject produced and Intellectual Disposition Category (IDC) score. Correlation coefficients were computed for all possible pairings of the LOGO-II scores with the IDC scores. All data analysis was conducted by using the $SPSS_X$ statistical package. Results indicate very significant correlations as reported in Table 1.

Insert Table 1

Taking into consideration the inverse number for IDC, the data in Table 1 indicate that students who score high on learning orientation (LOA,LOB, and TL) also score high on IDC. Likewise, students who score low on grade orientation (GOA,GOB, and TG) also score low on IDC. Collectively, the above data indicate that LOGO-II and OPI are measuring the same student characteristics.

Further analysis was conducted to determine the extent of similarity between the students comprising the experimental group and the students comprising the group on which the OPI was normed. Results indicate a high degree of similarity as reported in Table 2.

Insert Table 2

Within the second experimental situation, learning orientation (LO) and grade orientation (GO) scores were derived on the basis of

norms established in the first experimental situation. Correlation coefficients were computed for Learning Orientation and Grade Orientation scores in relation to sex, occupational consistency, and the traditional measures of academic achievement: four SRA scores, two SAT scores, and grade point average. Results indicate very significant correlations as reported in Table 3.

Insert Table 3

Specifically, the above data document a significant relationship between Learning Orientation and performance on traditional measures of academic achievement as well as expressed consistency between occupational aspiration and occupational expectation.

Discussion

One influence on progress in pursuit of excellence will tend to be one's perception of how to achieve success. The results of this study seem to provide additional support for a learning or process orientation over a grade or product orientation in relation to achievement. Pollio and Eison (1982) define a learning orientation as those behaviors and attitudes held by college students who approach educational experiences as opportunities to acquire knowledge and personal enlightenment. Whereas, grade orientation is the view that obtaining a good grade, in and of itself, is a valid reason

for educational activity. Therefore, the observation that, like college students, learning oriented secondary school students also perform significantly higher than grade oriented students on traditional measures of academic achievement would seem to provide additional support for an evaluation of the curriculum and instruction at all levels of the current educational process.

Can an increase in explicit presentation of learning or process oriented behaviors positively influence students' achievement orientation? Can educational personnel effectively communicate the nature and significance of process oriented behaviors to achieving students? Such questions merit further investigation.

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Table 1

Correlation Coefficients for IDC and LOGO-II Scores

	LOA	LOB	TL	GOA	GOB	TG	IDC
LOA	1.00	.43***	.82***	-.15**	-.20***	-.22***	-.37***
LOB		1.00	.87***	-.29***	-.26***	-.34***	-.46***
TL			1.00	-.27***	-.28***	-.33***	-.50***
GOA				1.00	.35***	.82***	.25***
GOB					1.00	.82***	.20***
TG						1.00	.28***
IDC							1.00

LOA = LEARNING ORIENTED ATTITUDE
LOB = LEARNING ORIENTED BEHAVIOR
TL = TOTAL LEARNING ORIENTATION
GOA = GRADE ORIENTED ATTITUDE
GOB = GRADE ORIENTED BEHAVIOR
TG = TOTAL GRADE ORIENTATION
IDC = INTELLECTUAL DISPOSITION CATEGORY

**p .01. ***p .001.

Table 2

Similarity of OPI Norm and Experimental Groups Performance on OPI- Intellectual Disposition Category (IDC) Scales

OPI-IDC Scales	Means	
	Norm Group	Experimental Group
Thinking Introversion	25.3	20.6
Theoretical Orientation	19.6	15.6
Estheticism	12.2	12.9
Complexity	15.3	13.8
Autonomy	23.4	23.5
Religious Orientation	11.8	12.0

	Norm	Experimental	
Group Mean	17.93	16.40	r (313) = .92
Standard Deviation	5.73	4.63	

Table 3

Correlation Coefficients for Learning- and Grade Orientation in Relation to Achievement Measures and Career Consistency

Achievement Measures	Orientation	
	Learning	Grade
SRA[a]-Reading	.45***	-.16
SRA-Mathematics	.30**	-.01
SRA-Composite	.31**	-.04
SRA-Educational Ability Series	.34**	-.11
SAT[b]-Verbal	.50***	-.13
SAT-Mathematics	.35**	.10
Grade Point Average	.21	-.18
Career Consistency	.24*	-.08
Sex	-.16	.16

[a]Science Research Associates. [b]Scholastic Aptitude Tests.

*p .05. **p .01. ***p .001.