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RELATIONSHIP OF WORK VALUE ORIENTATION TO ACADEMIC SUCCESS

Values appear to be crucial in occupational decision-making. That an "individual will not make an effective occupational choice unless he has support from his value scheme" was maintained by Ginzberg et al. (1951, p. 172). Values play a main part in Super's theory of occupational choice. "Work satisfaction depends upon the extent to which the individual can find adequate outlets in his job for his abilities, interests, values, and personality traits" (Super, 1957, p. 95). Darley & Hagenah (1955, p. 191) also placed values as a variable in an individual's occupational choice. "It is our major thesis now that occupational choice and measured occupational interests reflect in the vocabulary of the world of work, the value systems, the needs and the motivations of individuals."

A question may arise at this point regarding the conceptual differences between needs, interests, and values. Are they merely different names for the same concept? While many authors tend to ignore distinctions between needs, interests, and values, it would seem that a strong case can be made for their conceptual differentiations. Needs may be thought of as the most basic drives or motivators of behavior. In Maslow's framework, these would include hunger, thirst, safety, belongingness. Needs such as those proposed by Maslow are manifested in every aspect of a person's life: in work, in interpersonal relations, choice of a college major. Thus, needs are the all-pervading motivators and directors of behavior which determine a person's "style of life." Interests may be thought of as expressed likes and dislikes to specific activities. Work values, on the other hand, are those directive, cognitive, and affective principles which provide order and direction to vocational behaviors in the process of choice at various life stages. The aspects of work that a person values are determined by such things as: the manifestation of his more basic personality needs, the cultural influences of his particular society or subgroup within society, personal experience in the world of work, contact with people in the labor force.

Kinnane and Suziedelis (1966) made the distinction that values are logical, molar, general, motivational, self-reflective, and directive, while on the other hand interests are empirical, molecular, specific, activity-object oriented. Super (1957) stated that values permeate all aspects of life, concern life's goals and may be related to needs and drives. Ginzberg et al. (1951) grouped work values into three categories: those that relate to work itself or which are essential to work, those that relate to the outcomes of work; those that relate to the concomitants of work or situational characteristics. Super (1957) combined the concomitant and outcomes categories into one category of those values related to the rewards of work. He speaks

of intrinsic values which are those inherent in the work activities and of extrinsic values which are the rewards of work.

There have been studies investigating work values. Sternberg (1953) found that groups of college students majoring in different subjects were significantly different from each other in interest, personality and values. Poe (1954) developed his own value instrument and, using this, he found significant differences between the personal values of college men in two different fields of concentration. O'Connor and Kinnane (1961) using Super's Work Values Inventory and a sample of college men found six work value factors: security-economic-material, social-artistic, work conditions and associates, heuristic-creative, achievement-prestige, and independence-variety. These factors have been related to groupings on the Strong Vocational Interest Blank for Men (Kinnane and Suziedelis, 1962), to family background factors (Kinnane and Pable, 1962), and to life values (Kinnane and Gaubinger, 1963).

Kinnane and Suziedelis (1962) devised new value items which were correlated into the factors of O'Connor and Kinnane of 1961. Thus a new value inventory of eighty-nine items was formed. Martin (1963) using this inventory on junior and senior college women, isolated ten relatively independent factors.

A new instrument, the Work Motivation Schedule, resulted from these researches. Kinnane and Suziedelis (1966), in studying the work values of the handicapped, factor-analyzed the eighty-nine items in the Work Motivation Schedule into ten factors for male and ten for female. The factors discovered, along with brief and definitions are (for male): Altruism ("being of help to another person"); Art ("work involving the creation or appreciation of something beautiful"); Scientific Inquiry ("work solving practical, technical problems"); Intellectual Challenge ("work in which you can think for yourself"); Independence ("work which you can plan and carry out for yourself"); Leadership ("work where you can be the one in charge"); Prestige ("work where you can make a name for yourself"); Variety ("work which is always changing"); Work Conditions and Associates ("work with nice people, good boss, pleasant surroundings"); Monetary Rewards ("work in which the pay is good"). The ten factors discovered for females are: Altruism; Art; Scientific Inquiry; Intellectual Challenge; Independence; Leadership-Prestige; Variety; Appreciation-Approval ("work where you are appreciated for what you do"); Freedom from Stresses ("work where you don't have to be bothered with details and red tape"); and Monetary Rewards.

Keegan (1968) worked with the Work Motivation Schedule and found that needs and work values can be ordered on a continuum from lower order to higher order. In interpreting the results, it appeared that the way a person views the world of work is determined by his negative valuations of some aspects of work as well as his positive valuations of other aspects.

Lavin (1965, p. 59) performed an evaluative survey for the Russell Sage Foundation of recent literature on the determinants of academic achievement and found that measures of ability on the average account for thirty-five to forty-five per cent of the variations in academic performance. While no other single factor accounts for this much variation, more than

half still remains unexplained. Thus attention turns to other factors of a nonintellective nature which may be pertinent."

The relationships between personality characteristics and academic performance are quite weak and often inconsistent (Lavin, 1965). Ginzberg and Herma (1964) stated that a major relationship to explore is between value orientation and achievement levels.

If, as Super stated (1957), that values permeate all aspects of life, then it may be expected that an individual's value system, particularly as it is related to valuing work, may influence his degree of academic success.

The general hypothesis of this study then, is that work value orientation is predictive of academic performance. Work values are defined operationally as the degree of worth attached to generalized conceptions directly related to work activities, rewards and concomitants of work. These are measured by the Work Motivational Schedule (Kinnane and Suziedels, 1966).

Academic success is defined operationally as the grade-point average, here on called the GPA.

It is predicted that the following will hold true under the general hypothesis:

1. Since Ginzberg and Herma (1964) found leadership-value orientation to be positively related to higher achievement levels, it is predicted that there will be a positive relationship between the Leadership factor for men and GPA and between the Leadership-Prestige factor for women and GPA.

2. Since course materials in a technology college is more practical-orientated than high school or university, it is predicted that there will be a positive relationship between the Scientific Inquiry factor for men and GPA and the same factor for women and GPA.

3. Since the desire to know has a positive influence on an individual's scholastic attainments, it is predicted that there will be a positive relationship between Intellectual Challenge factor for men and GPA, and the same factor for women and GPA.

EXPERIMENTAL PROCEDURE

The sample for this study consisted of male and female technology students at the Newfoundland College of Trades and Technology. This college was the only college for technology students in the province of Newfoundland. Thus they represented the whole area and the whole technological student body for the entire Newfoundland province. The female subjects were following the program in one of Secretary Science, X-Ray, or Medical Laboratory. The male subjects were following the program in one of Accounting, Business Administration, Construction, Electrical, Electronics, Forestry, Medical Laboratory, Surveying, or X-Ray. The programs were two-year programs.

The subjects were grouped according to their present socio-economic status of their family, using the level of the father's stated occupation and Roe's (1956) classification system as the indicator of socio-economic status (See Table 3). IQ scores from the Otis Quick-Scoring Test of Mental Abilities were also obtained for each subject (See Table 3).

About five hundred subjects were in the technology programs. Subjects were eliminated if they failed to complete the Work Motivation Schedule, or if control information was inadequate. After this was done there were eighty-two female subjects and 289 male subjects.

The Work Motivation Schedule (Kinnane and Suziedelis, 1966) was used to measure work values. It is made up of eighty-nine items, written in occupational terms, dealing with the molar aspects of values.

METHODOLOGY AND RESULTS

The sample was divided into male and female groups and treated separately. High and low achievement groups were formed for both male and female groups by taking the top third and bottom third according to the subject's first semester GPA.

A computer program of the analysis of covariance for two control variable was used on the data. The resulting F-ratios for the male and female groups are given in Tables 2 and 3 respectively.

With the degrees of freedom of 1 and 190 there was no significant difference on any work value between the high and low male groups. (Table 1).

TABLE
Analysis of covariance between male, high and low GPA groups
on the work value factors

Work factors	High GPA		Low GPA		F
	\bar{X}	S.D.	\bar{X}	S.D.	
1. Altruism	25.86	7.32	29.22	7.76	3.212
2. Art	17.22	5.81	18.91	5.05	2.181
3. Scientific Inq.	36.97	9.40	37.22	8.56	0.423
4. Intell. Chall.	27.13	4.19	26.77	4.39	0.119
5. Independence	27.20	6.41	26.79	6.72	0.019
6. Leadership	21.23	7.14	21.65	6.41	0.037
7. Prestige	14.27	4.81	14.97	4.30	0.459
8. Variety	21.43	6.05	21.97	6.62	0.434
9. Work Conditions and Associates	22.22	6.45	22.03	5.12	0.917
10. Monetary Rewards	22.85	4.84	22.54	4.89	1.290

TABLE 2
Analysis of covariance between female, high and low GPA groups
on the work value factors

Work factors	High GPA		Low GPA		F
	\bar{X}	S.D.	\bar{X}	S.D.	
1. Altruism	30.92	7.16	34.29	4.85	3.065
2. Art	14.62	5.33	19.11	5.49	8.083*
3. Scientific Inq.	22.11	6.86	25.96	6.33	4.701**
4. Intell. Chall.	16.55	4.40	19.03	3.70	5.503**
5. Independence	19.40	7.29	22.70	6.45	2.965
6. Leadership-Prestige	19.55	7.98	24.59	7.41	4.901**
7. Variety	16.00	6.52	19.14	5.77	4.125**
8. Appreciation-Approval	11.25	2.31	12.14	2.54	1.680
9. Freedom from Stress	11.44	3.45	14.74	4.59	6.605**
10. Monetary Rewards	22.40	6.30	23.18	6.93	0.018

*Significant at the .01 level. **Significant at the .05 level.

TABLE 3
The IQ and socioeconomic levels for high and low GPA

		IQ		Socioeconomic level	
		\bar{X}	S.D.	\bar{X}	S.D.
Male	High GPA	111.86	8.70	4.06	1.17
	Low GPA	104.30	8.56	4.36	1.19
	Total	108.08	9.45	4.21	1.19
Female	High GPA	112.88	9.42	3.74	1.17
	Low GPA	108.81	9.08	4.18	1.27
	Total	110.85	9.48	3.96	1.24

With the degrees of freedom of 2 and 52, factor 2 (Art) was significant at the .01 level of confidence and factors 3 (Scientific Inquiry), 4 (Intellectual Challenge), 6 (Leadership-Prestige), 7 (Variety), and 9 (Monetary Rewards) were significant at the .05 level of confidence between the high and low GPA female groups. (Table 2).

The mean IQ and the mean socio-economic level were lower for the low GPA groups for both male and female (Table 3).

DISCUSSION

The general hypothesis that work value orientation is predictive of academic performance was not supported for the male group, and for the female group there was a negative relationship. The means of the ten work value factors of the low achievement female group were greater than the means of the high achievement group. The Art factor was significant at the .01 level of confidence, and the factors of Scientific Inquiry, Intellectual Challenge, Leadership-Prestige, Variety, and Freedom from Stress were at the .05 level of confidence.

The different results for the male and female groups might be explained by the limitation of the meaning of GPA. Differences in schools, departments, and instructors can cause the GPA to have different meanings. There was a greater opportunity for the differences in the meaning of GPA to come into play for the males than for the females, because for the males there were nine different programs from three departments, whereas for the females there were three different programs from two departments.

Another possible factor is the probability that academic success has different significance for males than for females (Anastasi, 1958). Within the context of the cultural definition of the male role, academic success is an instrumental goal having important implications for later career success. For the female students the instrumental aspect of academic performance may not be as important, since integration with the occupational system is less crucial for the female role. Because academic success for males is considered more significant in terms of later occupational success, family pressures on them to do well in school are probably stronger than they are for females. So work value motivation as measured by the Work Motivation Schedule might have more influence on the female than on the male subjects when it comes to academic success.

A research by Kehoe (1942) lent support to the sex-differences upon the relationship of values to scholastic success. He found that sex-differences

existed in the relationship of the Allport-Vernon-Lindzey Study of Values to differential information and learning. It was found that the correlation of aesthetic values and theoretical values to differential information and learning to be negative for boys and positive for girls.

A possible explanation for the negative relationship between the work value factors and GPA for the females might be that, for the females who valued these factors more, there were lack of opportunities to satisfy these values in their training programs or in the jobs that they saw themselves being prepared for, and thus they did not see how a higher GPA would help achieve the work values they considered to be important.

The GPA of the females would be more readily affected by work values due to the differences in sex-roles as mentioned before. That the program of studies of the females in the Newfoundland College of Technology probably did little to satisfy the values of Art, Scientific Inquiry, Intellectual Challenge, Leadership-Prestige, Variety, and Freedom from Stress would be a possible reason why there was a negative relationship between GPA and the work value factors.

Another possible explanation for the negative relationship between the work value factors and GPA for the females might be that upon perceiving themselves as achieving less well academically they then express higher values in the significant work value factors. This possibility would function as a type of defense mechanism. (To reduce the anxiety caused by the perception of low achievement, the subjects express greater value to the work value factors.) For example, a subject sees herself as being a low achiever in X-Ray, Medical Lab., or Secretary Science. An expressed higher value in Art would help rationalize her low achievement.

Another possibility might be that a subject who perceives herself as a low achiever could be looking into other lines of work preparation and this might be reflected in higher expressed values in the work factors. A subject who is a low achiever in X-Ray, Medical Lab., or Secretary Science might look to other lines of work, and this looking elsewhere could be reflected in an expressed higher work value in Art, Scientific Inquiry, Intellectual Challenge, Leadership-Prestige, Variety and/or Freedom from Stress.

SUMMARY AND CONCLUSION

The general hypothesis was that work value orientation is predictive of academic success. It was not supported for the male group. For the female group there was a negative relationship between the work values and grade-point average. It was found that the lower achievement female group was significantly higher on the work value factors of Art, Scientific Inquiry, Intellectual Challenge, Leadership-Prestige, Variety, and Freedom from Stress.

Sex-differences in the meaning of academic success was given as a possibility for the differences under the general hypothesis. The negative relationships for the female group was explained by the possibility that the programs in the Newfoundland College of Technology did little to satisfy the value systems of the female subjects who were higher in the significant work values.

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RESUMÉ

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L'étude essaie de déterminer l'influence de l'orientation de la valeur du travail sur le succès académique. Les sujets étaient deux cent quatre-vingt huit mâles et quatre-vingt deux femelles, étudiants du Collège de Technologie de Terre-Neuve. L'instrument employé pour mesurer la valeur du travail était Kinnane et Suziedelis "Work Motivation Schedule." Le critérium pour le succès académique était basé sur classe-point-moyenne. Une analyse de co-variance (covariance) fut utilisée sur la donnée contrôlant le quotient intellectuel et le statut économique et social.

L'hypothèse générale, que l'orientation de la valeur du travail est prophétique du succès académique était supportée du côté femelle et non du côté mâle. Il a été trouvé que parmi le groupe de femelles le moins élevé, au point de vue accomplissement, celles-ci eurent de meilleurs résultats dans la valeur du travail des facteurs d'Art, Enquête Scientifique, Défi Intellectuel, Commandement-Prestige, Variété et Liberté de la tension.