

## Brief Report:

### Behavioral Validation of a Vocational Needs Scale

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Traditional approaches to the validation of vocational needs and interests inventories typically have used correlations with scales on other inventories and vocational success and satisfaction as the basis for demonstrating validity of new paper-and-pencil measures of vocational needs and interests. Although some behavioral criteria have been used to validate needs and interests inventories, most of these criteria tend to focus on longitudinal criteria such as career choice. The present paper examines the potential usefulness of designing short-term behavioral criteria as a technique for validating vocational needs and interests inventories.

Scores on the Minnesota Importance Questionnaire (MIQ; Gay, Weiss, Hendel, Dawis, & Lofquist, 1971) are "measured vocational needs" and reflect vocational needs dimensions such as Ability Utilization, Independence and Working Conditions. Manifest vocational needs are behaviors which are observed by others. If a worker interacts frequently with his/her co-workers, an observer would infer that the person had a high need for co-workers. Measured vocational needs and manifest vocational needs are two methods for obtaining a description of an individual's vocational needs system. Although these two methods may differ in the vocational needs ascribed to individuals, agreement between methods should be high if the measure of vocational needs is a valid measure.

The present study was designed to test an hypothesis concerning the relationship between scores on the Independence scale on the MIQ and a person's behavior. This scale, represented

by the statement "I could work alone on the job," was hypothesized to differentiate between individuals who would choose a group task versus an individual task. Specifically, subjects who chose an individual task were hypothesized to have had higher scores on the MIQ Independence scale than subjects who chose a group task.

#### Method

The instrument used to measure vocational needs was the 210-item form of the MIQ. The MIQ measures twenty vocational dimensions: Ability Utilization, Achievement, Activity, Advancement, Authority, Company Policies and Practices, Compensation, Co-Workers, Creativity, Independence, Moral Values, Recognition, Responsibility, Security, Social Service, Social Status, Supervision-Human Relations, Supervision-Technical, Variety, and Working Conditions.

The subjects were 358 volunteers from an introductory psychology course at the University of Minnesota. The mean age was 19.9 ( $SD = 2.48$ ); 47 percent were males and 53 percent were females; 83 percent were sophomores. The 358 students took the MIQ as the first phase of the present study. A choice situation was then designed which was hypothesized to differentiate among students in terms of their scores on the Independence scale. A letter was subsequently sent to each student inviting them to participate in a group or an individual activity, according to their preference, and then discuss the results of the MIQ which they had taken approximately four months earlier. The return of a postcard, indicating interest in participating in the second phase of the study, served as the behavioral criterion, which was distinct from the

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paper-and-pencil measure of the need for independence.

Of the 347 students who received the letter, 36 chose participation in the individual activity, 284 chose not to participate in either activity, and 27 chose participation in the group activity. MIQ adjusted scale values, which could range from -4.0 to +4.0 were analyzed for each of these behavioral subgroups.

participation in either activity was associated with lower Independence scores, and a desire to participate in the group activity was associated with the lowest average scores on the Independence scale.

Results confirmed the hypothesis that individuals who had a higher need for independence on the job would participate in the individual activity more frequently than individuals who

Table 1  
MIQ Means for Scales Which Yielded  
Significant Differences Among Groups of Subjects

Scale	Groups			<i>p</i> <sup>a</sup>	<i>p</i> <sup>b</sup>
	Individual Activity	Neither	Group Activity		
Advancement	.71	.92	.50	.02	.59
Independence	.25	-.09	-.33	.02	.03
Supervision-Human Relations	.04	.33	.02	.01	.99

<sup>a</sup>Probability value obtained from one-way ANOVA with (2,344) degrees of freedom.

<sup>b</sup>Probability value obtained from Scheffé comparison between individuals who selected the individual activity versus those who selected the group activity.

### Results and Conclusions

The MIQ means and standard deviations for the three groups are contained in Table 1. The three groups of subjects were significantly different ( $p \leq .05$ ) on three MIQ scales—Advancement, Independence, and Supervision-Human Relations.

Although, as Table 1 shows, the three groups were significantly different on three MIQ scales, only one significant ( $p \leq .05$ ) Scheffé comparison was obtained. This occurred for the Independence scale, represented by the statement, "I could work alone on the job." The scale means for the Independence scale were ordered, as predicted, in terms of the behavioral criterion of independence. That is, choice of participation in the individual activity was associated with the highest average scores on Independence. Non-

had a lower need for independence. Results of the present study supported the validity of the Independence scale of a commonly used measure of vocational needs and, more importantly, illustrated the potential usefulness of an alternative approach for the behavioral validation of vocational need and interest inventories.

### Reference

Gay, E. G., Weiss, D. J., Hendel, D. D., Dawis, R. V., & Lofquist, L. H. Manual for the Minnesota Importance Questionnaire. *Minnesota Studies in Vocational Rehabilitation*, 1971, 28.

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