Self-Motivation *vs* Previous Grades as Predictors of Success in Counsellor Training

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Abstract

The prediction of academic success at the graduate level is a major issue for educators. While some previous research has suggested that undergraduate GPA is a valid predictor, other data contradict this finding. Of particular relevance for graduate programs in counselling psychology, the selection of students who are most likely to successfully learn the theory and skills necessary to help others remains open to investigation. As an alternative to some previous research which has focused upon personality attributes, the present study compares level of self-motivation as measured by questionnaire to previous grades in psychology and non-psychology courses as predictor variables of success in an introductory counsellor training course. Written, practical, and combined assessments of students in the course were used as the criterion variables in a regression analysis which revealed that motivation to succeed was the most effective predictor variable. Issues are raised for discussion regarding the reliable selection of students to undertake counsellor training.

Résumé

La prédiction des chances d'un étudiant au troisième cycle constitue une question importante pour les enseignants. Bien qu'il soit ressorti de certaines études que la moyenne est un bon moyen de prédire de telles chances, de nouvelles données contredisent cette opinion. Dans le cas des études supérieures en psychologie conseillère, en particulier, il convient encore de déterminer comment choisir ceux des candidats dont les aptitudes les destinent justement à un apprentissage des méthodes et théories visant à aider autrui. Alors que d'autres études se sont penchées sur les attributs de la personnalité des candidats, la présente étude offre une comparaison des niveaux de motivation personnelle selon les réponses à des questionnaires relatifs à des cours suivis auparavant en psychologie comme en d'autres matières, comme facteurs de prédiction au départ d'un cours de conseil élémentaire ou de formation. On a fait usage de l'évaluation écrite, pratique et combinée des étudiants dans un cours pour parvenir à une échelle de critères dans le cadre d'une analyse régressive qui a révélé que la motivation à la réussite est le variable de prédiction le plus sûr. On soulève des questions relatives à un choix fiable d'étudiants candidats au counseling ou à la formation.

The valid and reliable prediction of student success in graduate study remains one of the vexing problems of higher education. While there has been a great deal of valuable research which has examined the prediction of graduate success by reference to undergraduate Grade Point Average (GPA) (e.g., Atkinson, 1974; Berdie & Prestwood, 1975; Horner, 1974; Fanelli, 1977; Phares, 1973), there has been little conclusive evidence that success at graduate study can be accounted for by undergraduate grades alone. Leonardson (1979) concluded that "in general, correlations between predictive measures and actual success in graduate school have been found to be low" and "not conclusive" (p. 2).

Consequently, this issue remains open, largely due to the disagreement in the previous literature on this point. For instance, Rawls,

Rawls, and Harrison (1969) found that biographical information (such as age and marital status) and past experience in course work areas had stronger predictive validity than tests such as the GRE-MAT which are commonly used. This finding was reinforced by Hyman (1957) and Roscoe and Houston (1969), who seriously questioned the usefulness of the GPA or MAT scores of students who wished to pursue graduate study. On the other hand, several researchers have reported that the GRE-MAT and GPA are significant predictors of graduate school success (e.g., Capps & Decosta, 1957; Mehrabian, 1969; Nunnery & Aldman, 1964).

The results of these studies pose a puzzle for the selection of students for entry to graduate school. In a detailed study of the five most commonly used models of admission to graduate school, Remus and Wong (1982) recently evaluated over thirty such studies, and followed this with their own examination of those five models. They concluded that a regression model which included seven variables related to biographical and academic success was no more accurate as a predictor than other methods which simply summed data on GMAT and under-graduate GPA. However, this and other findings may be criticized on the grounds that they did not include the relevant variables in either summation or regression procedures used as predictors of graduate success.

Following a different orientation on this issue, Fanelli (1977), and Phares (1973) suggested that locus of control was a more valid indicator of high achievement. Similarly, Atkinson (1974), and Horner (1974) suggested that the student's desire to achieve should be considered as relevant to success. While it is recognized that arousal can benefit achievement, excessively high levels of achievement anxiety can also lead to failure (Alpert & Haber, 1960; Hansen, 1977).

Of particular interest to teachers of graduate psychology programs where theory and practice are assumed to be equally important (especially in the treatment of other humans who are in need of help), the relationship of the variables mentioned above to success at the practical and theoretical tasks of graduate study in this field was chosen for examination in the present study. Because the first author of this paper teaches an introductory course for graduate students in counselling theory and practice, the outcome variables used were success in both practical and written evaluations from this course. Previous studies have examined the success of GPA and some personality variables for pre-dicting effectiveness in counsellor-training (e.g., Cropper, 1977; Harris, 1978; Schwab & Harris, 1981), but have neglected to examine the relative effectiveness of GPA and students' level of motivation.

The present study was therefore designed to investigate the relative validity of previous grades and level of motivation as predictors of sucess in an introductory course in counselling skills and theory.

METHOD

Subjects

Fourteen male and 16 female students (CA = 21 to 47, M = 32) of a graduate psychology program and enrolled in a one-semester counselling skills and theory course completed a questionnaire prior to the commencement of the course. All responses were confidential, and data was collated by the second author who took no further part in the teaching of the course or the evaluation of the students. Data from the questionnaire was not available to the course instructor (first author) or to the second person who performed the counselling skills assessments,[1] until after the completion of the course.

Motivation

Motivation was assessed by a modified version of the Self-Motivation Inventory (SMI) (Dishman, Ickes & Morgan, 1980). The SMI was originally designed with 40 items, each to be answered on a five point Likert Scale and has been shown to discriminate between persons who have high versus low overall persistence in goal striving regardless of the target behaviour (Dishman & Ickes, 1981). Scores range from 40 (low) to 200 (high), and validation studies (Dishman & Ickes, 1981) indicated that the SMI was effective in predicting actual perseverent behaviour when compared to other self-image constructs theoretically linked to this behaviour. The SMI is internally consistent (alpha = .91), with test-retest reliability over one to five months at .86 to .92. Previous studies (Dishman, et al., 1980; Dishman & Ickes, 1981), successfully used the SMI to identify those athletes who would persevere with a demanding training routine versus those who would later drop out ($p < .001$). The SMI was adapted in the present study to measure students' levels of motivation in regard to the counselling course in which they were enrolled.

Previous grades in psychology and non-psychology courses

The grades that each student had obtained in all undergraduate courses were tabulated, and then separately compiled for psychology and other courses. Grades at all the institutions at which students studied for their undergraduate degrees used the same nomenclature (i.e., Fail, Pass, Credit, Distinction, High Distinction), and numerical values were given for each of these grades. Students' scores were therefore able to be calculated as a grade point average and entered into the regression analysis.

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[1] The authors are grateful to Heather McCormack for her assistance with this aspect of the study.

Content of counsellor-training course

The course consisted of 12 three hour classes spread over one university semester from March to June 1985. All classes were conducted in the same room, and the course was divided into theory and practical skills training, with approximately equal time devoted to each. Theory was assessed by an initial paper on the nature of the counselling, plus a two hour written exam on various counselling theories and their application to specific client problems. The skills aspect of the course was assessed by two practical exams: the first was for 15 minutes and evaluated the Microcounseling Attending Skills (Ivey and Simek-Downing, 1980) which were taught by video modelling and practice; the second was for 50 minutes and evaluated Attending and Influencing Skills plus progress through steps 4.0 to 7.0 of the Systematic Counseling Model (Stewart, Winborn, Johnson, Burks & Engelkes, 1978). Both practical exams were performed *in vivo* with only the examiner and a role-playing client present besides the student. Students were randomly assigned to one of the two examiners, and any doubtful assessments were repeated with the alternate examiner. Assessments were made by use of an evaluative checklist which listed the various microcounselling skills on a seven-point scale from 0 (under-used) to 0 (over-used), with 3 as appropriate use. (A copy of this instrument may be obtained from the first author). Scores were totalled over the 15 skills measured in the first exam and the 22 skills measured in the second exam. They were then added to the number of steps correctly negotiated from the Systematic Counseling Flowchart. Final scores were graded from zero to 15 and zero to 35 respectively. Scores for the theoretical (WRITTEN) part of the course were from zero to 15 (essay) and zero to 35 (exam). TOTAL scores reflected the sums of all of these assessments.

Regression analyses were conducted upon (1) scores for the skills training exams (PRACTICAL), (2) scores for the theory evaluations (WRITTEN) and (3) total scores for both of these combined (TOTAL).

RESULTS

A summary of the three regression analyses is presented in Table 1, showing the relationship between each of the predictor variables and the three criterion variables. Examination of this table indicates that the same predictor variables were associated with each criterion variable. The level of motivation (SMI) predicted the largest proportion of variance across all three criterion variables, with grades in previous non-psychology courses significantly predicting the criterion variable of TOTAL only, but in a *negative* direction. A similar nonsignificant trend for non-psychology course grades existed for both WRITTEN and PRACTICAL.

DISCUSSION

Data from the present study has shown that motivation as measured by the SMI was a more powerful predictor of success in a counselling course than were previous grades in psychology and other subjects. As such, this finding suggests that the general level of "academic" ability which is sometimes inferred from grades in typical university courses may not be a necessary predictor of success in learning the skills and theoretical bases of counselling. While there had already been a rigorous self-selection process in action which eliminated those students who failed in courses listed as prerequisites for the counselling course, those who remained did vary in their previous grade point average from "Pass" to "Distinction". Data collected on these persons and analyzed via the regression analyses presented in Table 1 suggest that selection of prospective counselling students on the basis of previous grades in psychology or non-psychology courses is not a completely reliable (or recommended) procedure. In fact, there is evidence that such selection procedures may militate *against* better counselling students.

However, the presence of high levels of motivation as measured by the SMI was shown to significantly predict grades on the overall (TOTAL) course performance of these students. This appears to be a major finding which strongly argues for the re-evaluation of those characteristics which have been both widely investigated and claimed to be associated with counsellor effectiveness. Taking this overall assessment as the criterion, it appears that there may be a direct link between student motivation and level of student performance on written and practical assessments.

TABLE 1

Summary of Predictor Variables with
Criterion Variables

Criterion Variable	Predictor Variable	Simple r	R_2	Beta	F-value
TOTAL	SMI	.50	.25	.48	9.29*
	Previous Other Course	-.03	.27	-.13	4.88*
	Previous Psych. Course	.26	.28	.13	3.39
WRITTEN	SMI	.37	.14	.33	4.40*
	Previous Other Course	-.05	.15	-.12	2.40
	Previous Psych. Course	.21	.16	.13	1.72
PRAC	SMI	.30	.09	.26	2.83
	Previous Other Course	-.10	.12	-.19	1.80
	Previous Psych Course	.18	.13	.13	1.30

* $p < .05$

The difference between PRACTICAL and WRITTEN predictors raises issues for further investigation. SMI levels did not reach significance as predictors of PRAC scores, but did reach significance for WRITTEN scores, indicating that motivation alone was not sufficient (in this study) to identify those students who would do well or poorly on the two practical exams conducted during this course. The combination of variables such as empathy (or even specific behaviours associated with listening or responding) with motivation levels may allow more powerful prediction of PRAC scores to be possible. In addition, this disparity between the prediction of practical skills and written evaluations may have been due to sample size. Because of the logistical restrictions placed upon the study (so that homogeneity of both subjects and treatment could be maintained), the F value obtained for SMI as a predictor of PRACTICAL success may have been restricted to a *trend* only. Increasing the power of the study in a replication with a larger sample might result in significance for this predictor variable.

Concerning the prediction of general success in graduate study, the data collected in this study could be generalized within limits. Efforts to describe the valid and reliable predictors of various areas of graduate study may reveal that there are different student characteristics which function as indicators of success, particularly in diverse fields such as engineering and psychology. The present study did not attempt to investigate such areas, and the findings that are reported here are not intended to suggest that motivation to succeed is a valid predictor for those other areas, no matter how attractive a construct that may be. Because the first author's interest lay in predicting success in counsellor-training, the selection of outcome variables was thus restricted. It may well be that there is some potential for generalization across academic areas within the one discipline for the data collected here, but the content of graduate programs is often varied, and consequently the predictive validity of motivation may also vary. Further research should be designed to investigate the usefulness of the motivation variable used in this study as a predictor of success in other areas of psychology and to other disciplines.

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