Student Personality Type Versus Grading Procedures in Intermediate Accounting Courses

ROBYN LAWRENCE
University of Scranton
Scranton, Pennsylvania

LARRY W. TAYLOR
Lehigh University
Bethlehem, Pennsylvania

ABSTRACT. Though teams composed of various personality types are expected to perform quite well as problem solvers, the extant literature has demonstrated a fairly narrow range of personality types in business courses and the accounting profession. To determine whether various grade-influencing activities in accounting courses favor certain personality types, the personality preferences and temperaments of 82 intermediate accounting students were determined. Relationships were then found between personality variables and the number of class absences, class participation, and the performance on homework and problems on the final examination.

During the past 10 years, accounting professionals and educators have expended considerable time and resources to evaluate the educational experience and desired skills of accounting students. Especially with the current trend of diminished enrollment in accounting programs, it is particularly important that college accounting courses *not* dissuade those students most likely to enhance, and succeed in, the accounting profession. For example, given that students possess varying inherent talents, the structure of the accounting courses and the methods for evaluating accounting students should not discourage otherwise able students. Of primary importance is the possible impact of students' temperaments and personality types on their performance in grade-influencing activities. In this article, we investigate this issue for intermediate accounting courses designed for accounting majors.

Jung (1971) proposed that people tend to have specific preferences for perceiving the world and judging preferences for processing the information. He suggested three pairs of opposing attitudes: (a) an attitude toward life (extroversion [E] versus introversion [I]); (b) perception (sensing [S] versus intuition [N]); and (c) judgment (thinking [T] versus feeling [F]). Isabel Briggs Myers subsequently added a fourth dimension, orientation toward life (judging [J] versus perceiving [P]). Thus, individuals can be classified according to 16 unique personality types based on the four dimensions, from which the familiar Myers Briggs Type Indicator (MBTI) was developed (Myers, 1962). Subsequently, David Keirsey developed the Keirsey Temperament Sorter (KTS) to classify individuals according to the 16 MBTI types.

Based on a 25-year clinical study of differences in temperament and character, Keirsey and Bates (1984) and Keirsey (1998) developed more fully the descriptions of each MBTI classification. Additionally, they promoted four "temperament" types:

1. sensation-perceiving (SP: ISTP, ESTP, ISFP, and ESFP)
2. sensation-judging (SJ: ISFJ, ESFJ, ISTJ, and ESTJ)
3. intuition-thinking (NT: INTP, ENTP, INTJ, and ENTJ)
4. intuition-feeling (NF: INFJ, ENFJ, INFP, and ENFP).

This classification is incorporated into the empirical analysis that follows.

Several studies have used the MBTI to examine the relationship between personality traits and success in college courses and in the accounting profession. Carland and Carland (1987) found that the two most common personality types for both business students and nonbusiness students were SFJ and NFJ. Oswick and Barber (1998) found that though students in the introductory accounting course at a British university "showed a clear inclination towards Thinking (70.9%) and Extroversion (60.8%)" (p. 252), there was little evidence to support the hypothesis that personality type was linked to overall course performance. However, at U.S. universities, Nourayi and Cherry (1993) found that sensing (S) students did better than intuitive (N) students in the second intermediate accounting, tax accounting, and auditing courses. Laribee (1994) found evidence that students preferring E, N, F, and P may be

filtered out of the accounting major between the sophomore year and graduation. In the profession at large, Shackleton (1980) found that introversion (I) was more highly represented among accountants and financial managers (58%) as compared with the general population (25%, as reported by Keirsey and Bates, 1984). Several studies have found that ISTJ, ESTJ, and INTJ are the most prevalent personality types among professional accountants, with estimated percentage representations ranging (respectively) from 20%–26%, 13%–15%, and 12%–13% (Jacoby, 1981; Kreiser, McKeon, & Post, 1990; Schloemer & Schloemer, 1997; Shackleton, 1980). By comparison, the ISTJ, ESTJ, and INTJ types, respectively, are 6%, 13%, and 1% of the general population (Keirsey & Bates, 1984). Finally, Jacoby (1981) found that the ISTJ type is the most likely to succeed in the audit practice of national public accounting firms, although Schloemer and Schloemer (1997) determined that post-1989 partners of CPA firms displayed the extroversion (E) preference more often (83%) than did the older partners (20%).

This research does not provide insight into *why* certain personality types are more represented in upper division accounting courses and in the public accounting profession in the United States. One possible contributing factor may be that the methods of presenting accounting course material are more suited for particular personality traits. For example, Ott, Mann, and Moores (1990) reported that (based on the scores on the first exam in an introductory accounting course) sensing (S) and thinking (T) types perform better with lectures, whereas intuitive (N) and feeling (F) types perform better with computer-assisted instruction. Wolk and Nikolai (1997) found that, though undergraduate and graduate accounting students tended toward extroversion (E) (55% and 52%, respectively), approximately 60% of accounting faculty tended toward introversion (I). Significant differences were also found regarding sensing (S) (79% for undergraduates versus only 56% for faculty) and thinking (T) (65% for undergraduates versus 87% for faculty). Finally, for business students and faculty in general, Cooper

and Miller (1991) found that the level of congruence between learning style and teaching style was related to student evaluations of the course and the instructor, but not to the course grades.

Our purpose in this study was to determine whether activities that form the basis for grades in upper division accounting courses are "friendlier" to certain personality types. In other words, do some personality types receive more positive feedback and thus continue to pursue an accounting degree? It is important to determine if grading procedures in accounting courses are filtering students according to personality, because such filtering would have significant ramifications for the future success of the accounting profession in general.

Method

Subjects

Eighty-two students in five intermediate financial accounting classes (four Intermediate I courses and one Intermediate II course) taught by two instructors at a private university voluntarily took the KTS on the last day of class. The composition of the sample by personality types, compared with the overall general population as reported by Keirsey and Bates (1984), is given in Table 1. The sample composition closely emulated the general population along three of the four personality dimensions. However, there was a higher percentage of judging (J) individuals in this sample (74.4%) than in the general population (50%), but less than in a previous study of upper division accounting courses (94%) (Nourayi & Cherry, 1993). There was also a much higher percentage of SJ and NF temperament types than in the general population.

ESTJ and ISTJ were among the top three individual personality types. Surprisingly, ESFJ was the second most common personality type in this sample. The percentages of SFJ (23.8%) and NFJ (6.1%) individuals in this study were well below the 32% and 20% figures reported by Carland and Carland (1987) for business students in general.

Sixteen students (24%) from the five classes (all of whom were enrolled in

three of the classes) did not volunteer to take the KTS. Their characteristics were compared with those of the students who completed the KTS and were from the same three classes. The nonresponse group earned a lower overall grade in the course (mean equal to 1.7 versus 2.5); performed worse on the open-ended problems on the first examination (mean equal to 68 versus 78); and were less likely to volunteer for the optional extra credit oral presentation (40% versus 75%).

Procedure

To estimate the impact of the personality variables on the performance indicators, a recursive structural system was constructed. Y represented any one of the performance variables, such as the course grade, homework points, or the number of absences. Because factors such as past success, gender, and the course type may influence an individual's current achievement, a reasonable set of conditioning variables (weakly exogenous) was incorporated into this study. These variables were (a) a gender indicator that equals 1 for males and 0 for females (SEX), (b) the grade point average prior to the course (CUMGPA), and (c) an indicator for the course that equals 1 for students in the second intermediate accounting course (ACCII). Thus, the structural model is

$$Y_t = a_1 + a_2ACCII_t + a_3SEX_t + a_4CUMGPA_t + e_t \text{ (1)}$$

where e_t is a disturbance term that has zero expectation conditional upon the regressors.

Personality types that are genetically determined or experientially developed are most likely to heavily influence CUMGPA, but not necessarily the other two regressors. As such, CUMGPA was specified as a linear function of student temperament scores (C1, C2, C3, C4, TT1, TT2, TT3, TT4) where these variables were defined as follows:

• C1 is the Extroversion score (versus Introversion)
• C2 is the Sensation score (versus Intuition)
• C3 is the Thinking score (versus Feeling)

| Personality type | Sample[a] | | General population (%)[b] |
	No.	%	
Extroversion [E]	51	62.2	75
Introversion [I]	19	23.2	25
Balanced preference	12	14.6	
Sensation [S]	57	69.5	75
Intuition [N]	21	25.6	25
Balanced preference	4	4.9	
Thinking [T]	38	46.3	50
Feeling [F]	37	45.1	50
Balanced preference	7	8.6	
Judging [J]	61	74.4	50
Perceiving [P]	18	22.0	50
Balanced preference	3	3.6	
SJ	52	63.4	38
SP	3	3.7	38
NT	3	3.7	12
NF	16	19.5	12
Unclassified	8	9.7	
ESTJ	21.5	26.2	13
ESFJ	16	19.5	13
ISTJ	14	17.1	6
ENFP	9	11.0	5
ENFJ	5	6.1	5
ISFJ	3.5	4.3	6
INFP	3.5	4.3	1
ESFP	2.5	3.0	13
ENTP	2	2.4	5
INTJ	2	2.4	1
ISFP	1	1.2	5
INTP	1	1.2	1
ESTP	.5	.6	13
ENTJ	.5	.6	5
ISTP	0		7
INFJ	0		1

[a]For the frequencies of the 16 individual personality types, balanced preferences were scored as one half for each of the extremes for that dimension. [b]The source of the percentages for the general population was Keirsey and Bates (1984).

• C4 is the Judging score (versus Perceiving)

TT1 is an indicator variable for the SJ temperament type that equals unity only if C2 > 10 and C4 > 10 (0 otherwise)

TT2 is an indicator variable for the SP temperament type that equals unity only if C2 > 10 and C4 < 10 (0 otherwise)

TT3 is an indicator variable for the NT temperament type that equals unity only if C2 < 10 and C3 > 10 (0 otherwise)

TT4 is an indicator variable for the NF temperament type that equals unity only if C2 < 10 and C3 < 10 (0 otherwise)

Upon substitution into model (1) for CUMGPA, the following reduced form model was obtained:

$$Y_t = b_1 + b_2 ACCII_t + b_3 SEX_t + b_4 C1_t + b_5 C2_t + b_6 C3_t + b_7 C4_t + b_8 TT1_t + b_9 TT2_t + b_{10} TT3_t + b_{11} TT4_t + v_t \quad (2)$$

where v_t is a disturbance with zero expectation conditional upon the regressors.

The variables used in this study, their codes, and possible ranges of values are presented in Table 2. The independent variables were the scores on the KTS for each of the four dimensions, gender, the cumulative grade point average prior to entering the intermediate accounting course, and an indicator as to whether it was the first or second intermediate financial accounting course. Because the ages of the students were very homogeneous in this sample, an age variable was not considered. Moreover, given the limited sample size, some factors that also may affect student performance in the classroom could not be included in the analysis (Turner, Holmes, & Wiggins, 1997; Wooten, 1998).

The dependent variables consisted of various types of activities that often contribute to an accounting course grade. These activities included attendance, homework, Lotus 123 spreadsheet assignments in three of the classes, a written case by pairs of students in three of the classes, and an optional oral presentation for extra credit in two of the classes. Each of these items did not exceed 10% of the course grade. The scores (percentage correct) from different formats of examination questions also were included: multiple-choice questions and the open-ended problems from the comprehensive final examinations for all five classes, scores for an essay question from a midterm exam in two of the classes, and open-ended problems for three of the classes. Additionally, the course grade earned by the students in all five of the classes and a subjective evaluation by the instructor toward the student's class participation in three of the classes were included. The number of observations, the mean and standard deviation for each cardinal variable, and the frequency and the number of observations for each classification variable are presented in Table 3.

Results

Ordinary least squares (OLS) structural estimates for several performance variables are presented in Table 4. The Breusch and Pagan (1979) test for heteroskedasticity was employed to determine whether it was necessary to use the robust standard errors proposed by

TABLE 2. Summary of Variables and Codes

Variables	Code	Possible range of values
Independent variables		
Gender	SEX	1 = male; 0 = female
Intermediate accounting course	ACCII	1 = second course
		0 = first course
Precourse cumulative grade point average	CUMGPA	0–4.00
Extroversion score (versus Introversion)	C1	0–10
Sensation score (versus Intuition)	C2	0–20
Thinking score (versus Feeling)	C3	0–20
Judging score (versus Perceiving)	C4	0–20
SJ temperament type	TT1	1 = SJ; 0 = not SJ
SP temperament type	TT2	1 = SP; 0 = not SP
NT temperament type	TT3	1 = NT; 0 = not NT
NF temperament type	TT4	1 = NF; 0 = not NF
Dependent variables		
Course grade	CGRADE	0–4.00
Homework score	HMWK	0–100
Lotus worksheet assignments score	LOTUS	0–100
Score on midterm problems	QPROB	0–100
Score on midterm essay question	QESSAY	0–100
Score on multiple-choice exam questions	FMC	0–100
Score on final exam problems	FPROB	0–100
Score on case assignment	CASE	0–100
Number of class absences	ABSENT	0–40
Student opted for extra credit presentation	PRESENT	1 = yes; 0 = no
Instructor's subjective evaluation of student's participation in the class	PARTIC	1 = negative
		2 = neutral
		3 = positive

TABLE 3. Descriptive Statistics for Variables

Variable codes	No. of observations	M	SD
CUMGPA	82	3.00	.43
C1 (Extroversion)	82	5.83	2.09
C2 (Sensation)	82	11.79	3.92
C3 (Thinking)	82	9.85	4.63
C4 (Judging)	82	13.74	4.57
CGRADE	82	2.54	1.01
HMWK	82	92.17	8.78
LOTUS	51	77.08	11.28
QPROB	51	78.20	12.11
QESSAY	28	85.71	10.78
FMC	69	70.17	18.44
FPROB	69	75.23	16.29
CASE	51	87.16	6.19
ABSENT	82	3.01	3.56
		Frequencies	
SEX	82	Male: 45; Female: 37	
ACCII	82	Yes: 23; No: 59	
PRESENT	28	Yes: 21; No: 7	
PARTIC	51	1: 5; 2: 30; 3: 16	

White (1980). For three of the dependent variables (CGRADE, HMWK, and QPROB), the assumptions of homoskedastic disturbances were invalid, but not for the six other regressands. Because of missing observations (and a few cases where egregious outlier problems were detected), the sample size varies across regressions. There were no essay questions for students taking the second intermediate accounting course, and thus no need for the indicator variable ACCII in the QESSAY regression.

As expected, the precourse GPA was related to most of the achievement measures. Moreover, although males scored significantly lower on the homework assignments, this did not appear to affect their overall course grade. Though absences were more prevalent in the second intermediate financial accounting course, they were inversely related to the precourse GPA. Indeed, about 61% of the variation in the course grade and the number of absences could be explained by the variation of the regressors in the conditioning set. However, though the predictive capability of the structural model (1) is quite good, it does not provide insights into *why* some students earn higher grades. Variables related to personality characteristics were thus examined to provide insights into student performance on grade-influencing activities in intermediate accounting. Because presumably these variables would also influence the grades in prior courses, precourse GPA was omitted once the personality variables were introduced into the model (see the reduced model [2]).

The reduced form estimates are presented in Table 5. Because of multicollinearity problems associated with small samples, a general-to-specific modeling strategy was adopted. Those regressors with statistically insignificant coefficients and relatively low partial R-squares were dropped from the equation. For consistency with the structural equation, however, the variables ACCII and SEX were retained regardless of their statistical significance.

According to the results reported in Table 5, personality type is related to student performance on homework, the final examination problems, and the number of absences. Those students scoring higher on the sensation preference tended to perform worse on the homework and better on the final examination problems. Those students scoring higher on the judging preference performed better on the homework, and tended to incur fewer absences from class. Those students scoring higher on

TABLE 4. OLS Structural Estimates[a]

Regressor	Dependent variable								
	CGRADE	HMWK	LOTUS	QPROB	QESSAY	FMC	FPROB	CASE	ABSENT
Intercept	−3.756	70.80	43.03	8.331	44.61	−17.63	−1.803	74.98	7.615
(t ratio)	(7.27)	(8.53)	(3.64)	(1.03)	(4.15)	(1.44)	(0.16)	(10.9)	(2.98)
[p value]	[.000]	[.000]	[.001]	[.303]	[.000]	[.153]	[.875]	[.000]	[.004]
ACCII	0.104	−7.176	−5.400	−5.923	—	8.767	7.970	2.170	3.015
(t ratio)	(0.66)	(3.30)	(1.76)	(2.60)		(2.69)	(2.61)	(1.23)	(4.30)
[p value]	[.507]	[.001]	[.083]	[.009]		[.009]	[.011]	[.222]	[.000]
SEX	−0.033	−4.947	−2.245	1.427	−4.543	4.535	0.986	−0.943	1.043
(t ratio)	(0.26)	(2.93)	(0.68)	(0.62)	(1.39)	(1.48)	(0.34)	(0.50)	(1.63)
[p value]	[.797]	[.003]	[.497]	[.532]	[.174]	[.142]	[.731]	[.621]	[.106]
CUMGPA	2.070	8.390	12.45	23.62	14.59	27.85	24.90	3.949	−1.947
(t ratio)	(13.0)	(3.42)	(3.23)	(8.45)	(4.14)	(7.00)	(6.69)	(1.78)	(2.41)
[p value]	[.000]	[.001]	[.002]	[.000]	[.000]	[.000]	[.000]	[.080]	[.018]
R^2	.61	.65	.61	.59	.34	.41	.38	.07	.61
HET	YES	YES	NO	YES	NO	NO	NO	NO	NO
Sample size[c]	98	96[b]	65[b]	67	37	82	82	67	95[b]

[a]The Breusch-Pagan test for heteroskedasticity was employed to detect nonspherical disturbances. If the test rejected at the 5% significance level (HET is "Yes"), then White's heteroskedastic-consistent covariance matrix was employed to obtain the standard errors for the t ratios that are given in the parentheses. [b]Estimates of the structural models including the 2, 2, and 3 outliers in HMWK, LOTUS, and ABSENT, respectively, revealed a similar pattern of significance to that reported above, except that in the LOTUS model, ACCII has a coefficient of −9.856 with a p value of .019. However, by including these outliers, the R^2 for each of the models drops to between .25 and .28. [c]The 16 students who did not take the KTS were included in the estimation samples to increase the efficiency of the estimators.

the thinking preference tended to miss class more often.

Students of the NT temperament type tended to perform worse on homework assignments and appeared to have incurred more absences than other temperament types (p value of .069). Students of the NF temperament type tended to perform better on the final examination problems and possibly on the multiple-choice questions (p value of .072). There is marginally significant evidence that students of the SP temperament type tended to perform worse on the computer spreadsheet assignments (p value of .072).

Despite the differences in performance on the individual activities that were used to calculate course grades, we found that the overall course grades were only marginally related to personality type. Students with a judging preference tended to earn higher course grades (p value of .061), and students of the NT temperament tended to earn lower grades for the course (p value of .062).

Because none of the personality variables were observed for the 16 nonrespondents, we dropped those cases

when estimating the reduced forms. However, as noted previously, those students who declined to participate earned lower grades (on average) than respondents. As is well known, the self-selection bias introduced by a nonresponse group can possibly distort the (estimated) regression response function. In order to investigate this possibility, the truncated regression model was employed (Amemiya, 1985) to account for low performers who were not included in the sample. Space considerations precluded us from reporting these results in tabular form. The empirical results were remarkably similar to those reported in Table 5. Indeed, all of the statistically significant variables from the OLS regression were again significant in the use of the truncated model. Moreover, we found stronger evidence for the inclusion of TT3 in the equation for absences when using the model that accounts for self-selection.

Two performance variables included in this study, Presentation and Participation, were categorical in nature. The former dependent variable was binary and obtained a value of unity for those

students who made a presentation (none in the second intermediate accounting course) and zero otherwise. The probit estimates presented in Table 6 reveal that the precourse GPA and gender were only weak explanators in the structural equation. C3 was the only personality variable that was even marginally significant in the reduced form (p value of .174). The negative sign on the C3 coefficient indicates a positive relationship between scores on presentations and scores indicating a feeling preference. Because Participation assumes values of 1, 2, or 3, the model equations were estimated by ordered probit. According to the results reported in Table 6, the precourse GPA was a good predictor variable for participation, and C4 was a strong predictor in the reduced form equation. The positive coefficient for C4 indicates a positive relationship between class participation and scores indicating a judging preference. Not surprisingly, the goodness-of-fit was quite low for the Presentation model, but stronger for the Participation model. The R^2 measure was constructed according to the procedures

TABLE 5. OLS Reduced Form Estimates[a]

Regressor	Dependent variable								
	CGRADE	HMWK	LOTUS	QPROB[b]	QESSAY[b]	FMC	FPROB	CASE[b]	ABSENT[c]
Intercept	1.904	95.59	81.99	71.06	77.75	56.03	42.64	91.25	2.987
(t ratio)	(4.74)	(29.2)	(29.0)	(12.7)	(9.63)	(7.95)	(4.17)	(25.7)	(2.78)
[p value]	[.000]	[.000]	[.001]	[.000]	[.000]	[.000]	[.000]	[.000]	[.005]
ACCII	−0.186	−8.443	−10.25	−6.930	—	4.189	5.137	0.234	3.461
(t ratio)	(0.76)	(4.58)	(3.67)	(2.15)	—	(0.89)	(1.28)	(0.13)	(5.27)
[p value]	[.452]	[.000]	[.001]	[.037]	—	[.376]	[.206]	[.895]	[.000]
SEX	0.147	−2.494	0.508	5.149	−1.460	4.811	3.075	−0.578	−0.179
(t ratio)	(0.65)	(1.48)	(0.17)	(1.49)	(0.31)	(1.07)	(0.81)	(0.31)	(0.34)
[p value]	[.515]	[.143]	[.865]	[.143]	[.756]	[.290]	[.422]	[.762]	[.734]
C1–E	—	—	—	—	—	—	—	—	—
C2–S	—	−0.571	—	—	—	—	2.173	−0.319	—
(t ratio)	—	(2.08)	—	—	—	—	(3.03)	(1.29)	—
[p value]	—	[.041]	—	—	—	—	[.004]	[.202]	—
C3–T	—	—	—	—	—	0.804	—	—	0.174
(t ratio)	—	—	—	—	—	(1.31)	—	—	(2.81)
[p value]	—	—	—	—	—	[1.96]	—	—	[.005]
C4–J	0.047	0.542	—	0.509	0.910	—	—	—	−0.212
(t ratio)	(1.90)	(2.33)	—	(1.54)	(1.36)	—	—	—	(2.93)
[p value]	[.061]	[.022]	—	[.131]	[.187]	—	—	—	[.003]
TT1–SJ	—	—	—	—	−4.594	—	—	—	—
(t ratio)	—	—	—	—	(0.73)	—	—	—	—
[p value]	—	—	—	—	[.472]	—	—	—	—
TT2–SP	—	—	−10.83	—	—	—	—	—	—
(t ratio)	—	—	(1.84)	—	—	—	—	—	—
[p value]	—	—	[.072]	—	—	—	—	—	—
TT3–NT	−1.137	−11.03	—	—	—	—	—	—	4.062
(t ratio)	(1.89)	(2.44)	—	—	—	—	—	—	(1.82)
[p value]	[.062]	[.017]	—	—	—	—	—	—	[.069]
TT3–NF	—	—	—	—	—	11.9	17.64	—	—
(t ratio)	—	—	—	—	—	(1.83)	(2.57)	—	—
[p value]	—	—	—	—	—	[.072]	[.013]	—	—
R^2	.11	.35	.29	.16	.09	.09	.16	.04	.60
HET	NO	NO	NO	NO	NO	NO	NO	NO	YES
Sample size	82	82	51	51	28	69	69	51	81

[a]The Breusch-Pagan test for heteroskedasticity was employed to detect nonspherical disturbances. If the test rejected at the 5% significance level (HET is "Yes"), then White's heteroskedastic-consistent covariance matrix was employed to obtain the standard errors for the t ratios that are given in the parentheses. [b]A few variables significant at the 20% or higher level were included because their omission caused R^2 to fall precipitously. [c]The estimate of the reduced form model for ABSENT that includes the one outlier revealed a similar pattern of significance to the reported above, except that C3 had a coefficient of .16 with a p value of .013. However, by including the outlier, R^2 drops from .60 to .31.

outlined by Taylor (1997) for models with latent structures.

Discussion

Most of the subjects in this study showed a preference for introversion, intuition, and judging. The intuition preference indicates a preference for creativity, imagination, and improving the status quo. The judging preference indicates a desire for a more orderly and controlled life. We found, however, that these two preferences did not appear together in the majority of the sample, as the students were overwhelmingly of the SJ temperament. Keirsey (1998) characterized SJ individuals as guardians who made "model students" and were well suited to auditing.

Conditional on the personality variables, gender was not found to be a significant factor. In contrast, precourse GPA was found to be significantly related to all but two (performance on the paired student case write-up and on an optional presentation) of the grade-influencing activities examined. Interestingly, Turner, Holmes, and Wiggins (1997), and Nourayi and Cherry (1993)

TABLE 6. Probit Estimates

| Regressor | Presentation | | Participation | |
	Structural	Reduced form	Structural	Reduced form
			Dependent variable	
Intercept	−0.816	1.640	−2.990	−0.389
(z value)	(0.47)	(1.90)	(2.38)	(0.61)
[p value]	[.638]	[.057]	[.017]	[.542]
ACCII			0.333	0.096
(z value)			(1.05)	(0.24)
[p value]			[.294]	[.810]
SEX	−0.421	0.178	0.357	0.295
(z value)	(0.77)	(0.31)	(1.09)	(0.77)
[p value]	[.441]	[.757]	[.276]	[.441]
CUMGPA	0.513		1.310	
(z value)	(0.88)		(3.28)	
[p value]	[.379]		[.000]	
C3–T		−0.100		
(z value)		(1.36)		
[p value]		[.174]		
C4–J				0.114
(z value)				(2.94)
[p value]				[.003]
R^2	.07	.11	.26	.24
Sample size	37	28	67	51

concurred that intermediate accounting grades are significantly related to pre-course GPA but not gender.

The data revealed marginal evidence of a (positive) relationship between the overall course grade and the judging preference, and some evidence of a (negative) relationship between the course grade and the NT temperament type. These results are generally consistent with the empirical findings of Nourayi and Cherry (1993). However, unlike the current study, such previous studies have not indicated which activities formed the basis for assigning course grades.

Our findings, as well as those of Nourayi and Cherry (1993), suggest the possibility of grading schemes for intermediate accounting courses that do not favor particular personality types. Relationships appear to exist between personality characteristics and student performance on grade-influencing activities such as homework assignments, examinations, absences, in-class participation, and computer assignments. In particular, open-ended prob-

lems and (possibly) multiple-choice questions on examinations may favor the sensation preference and the NF temperament. Whereas essay examination questions and cases appear to be personality-type neutral, class participation appears to favor those students with a judging preference.

These results have important implications regarding the selection of accounting as a student's major. The SJ temperament (and STJ in particular) has been the most prevalent preference combination in upper division accounting courses and the accounting profession over the past 2 decades. Not surprisingly, it is also the most common stereotype associated with the accounting profession. As the profession extends into nontraditional areas (for example, consulting and forensic accounting), the strengths of the other three temperament types will most certainly become more important. Course structure and course innovations should be evaluated not only according to skills developed, but also according to whether the courses are personality-

type biased. As an example, the expanded use of case studies appears to be a temperament-neutral activity. On the contrary, the move to a completely multiple-choice CPA examination and away from personality-neutral essay questions could potentially be a personality-biased filter.

Of course, an individual can consciously learn to use his or her less preferred psychological functions, and thus a prevalence of selected personality types in accounting classes does not imply that other personality types are doomed to failure. However, Shackleton (1980, p. 123) observed that "the job is more enjoyable and less of a strain to those whose preferences and thought processes match the demands of the job." Moreover, Edgley (1992) emphasized that problems are best solved by groups composed of various personality types. Given the increasing demands placed on those in the accounting profession, it may be best to attract a greater variety of personality types so as to form effective problem-solving teams.

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