

The Association of Accounting Course Content Groupings and Student Evaluations

Nat R. Briscoe

University of Tampa

G. William Glezen

University of Arkansas

William C. Letzkus

University of Arkansas

Abstract

This paper reports the results of a cross-sectional study that examines the relationship between student evaluations of teaching (SET) and the groupings of upper division accounting courses as professional standards based, alternative approach based, and judgment based. The results of the analyses indicate that a significant relationship does exist, and that as the course groupings reflect more uncertainty and abstractness, SET scores decline. Where promotion, tenure, and annual pay decisions are predicated to some extent on student evaluations, both administrators and faculty may wish to consider these findings.

Student evaluations of teaching (SET) are used in a number of important academic decisions including promotion and tenure. Yunker and Sterner [1988] found that usage of SET has become almost universal within accounting departments and that SET is by far the most important single criterion for evaluating teaching effectiveness. Cashin [1988] estimated that more than 1,300 articles and books have addressed the issue of student ratings of teaching. Although a number of these studies have investigated the relationship of overall SET scores and other variables, Williams, et al [1988] noted that "The research does not lead the reader to

clear conclusions about the impact of student attitudes on SET scores because conclusions of some studies have conflicted with others" [p. 48]. Variables that have been assessed in prior studies include expected or actual course grade, preconceived attitudes toward individual instructors, instructor characteristics, and student self-assessments. See Williams, et al [1988] for a review of this literature.

Wright et al [1984] note that a number of research studies has addressed the effect of course subject matter on SET. Feldman [1978] found that teachers of courses in the humanities, fine arts and languages areas tend to receive somewhat higher ratings

than do teachers in the social sciences or engineering areas. Using Biglan's [1973] model of subject matter, Neumann and Neumann [1983 and 1985] similarly found that student evaluations of teaching and of the course were highest for the humanities; lower for business, social sciences and education; still lower for the sciences and engineering; and lowest for agriculture. Schwab [1976; as cited by Feldman, 1978] found moderate differences when comparing student ratings of instructors for different subject areas of business courses. McKeachie [1979] states, however, that it appears wise to not lay heavy weight on comparisons of ratings in courses differing greatly as to subject matter.

Marsh and Overall [1981] evaluated 19 different courses (8 undergraduate and 11 graduate) in five "content areas" (quantitative analysis, economics, accounting, management, and social/legal applications). The effect of course type, although statistically significant, accounted for no more than 2 to 3 percent of the variance (in any of the analyses performed). The authors pointed out, however, that since the ratings of different courses were collapsed into five content categories, this might have masked variance that was specific to courses within each of the content areas. Kulik and Kulik [1974] similarly state that it is likely that there are differences in the attractiveness of courses within a single department.

In accounting settings, Kreuze and Newell [1987] identified teacher presentation and grading system as

significant determinants of SET, and Porcano [1984] found differences in association between faculty evaluations and student performance in accounting principles courses and in tax and cost accounting courses (suggesting potential differences in SET in different courses).

In another accounting based study, DeBerg and Wilson [1990] investigated several potential confounding variables in student evaluation of accounting instructors, including type of accounting course taught. They found the type of course to be a significant predictor variable for SET. Further, they found significant positive relations between SET and Intermediate I, Advanced Accounting, and Income Tax and significant negative relations between SET and Cost Accounting, Information Systems, and Auditing.

This study differs from DeBerg and Wilson in four ways. First, it is cross-sectional across several universities whereas DeBerg and Wilson's study was restricted to one university. This serves to reduce potential institutional bias and, therefore, increase the external validity of the findings. Second, this study examines SET for both instructor and course evaluations, whereas DeBerg and Wilson focused solely on instructor evaluation. Third, courses are classified into arbitrary but useful groups based on perceived uncertainty/ abstractness of the course subject matter, whereas DeBerg and Wilson focused on individual courses. Fourth, DeBerg and Wilson controlled for a grade effect by using actual final grade whereas this study uses expected grade. Briscoe [1992] has shown that expected grade is more highly correlated with SET than actual grade.

Grouping of Accounting Courses

Benke and Hermanson [1988] state that measurement of quality teaching of accounting must recognize three levels of intellectual development. They state that at the "lower" levels of intellectual development accounting students believe that every question has a "correct" answer that can be found if one works long enough. At the next level, students begin to recognize that many questions may have more than one answer and there may be several alternative solutions to the same question. At the highest level, students begin to realize that some questions do not have any answers and that inference and judgment are important. Inference and judgment require that one be able to reason abstractly. Shute [1979] notes, however, that even the upper-level and graduate student classifications contain a large proportion of students who were not able to reason abstractly.

Accounting professors are being urged to develop in their students the skills and abilities "... to solve diverse and unstructured problems in unfamiliar settings" [AECC, 1990].¹ To the extent

accounting students perceive accounting as a rule-oriented process [Glezen and Letzkus, 1991], they may feel uncomfortable in and assign lower SETs to accounting courses that tend to have a higher proportion of uncertainty and abstract content. Instructors in these courses may thus, on average, receive lower SETs than instructors in other courses because of the abstract nature and inherent uncertainty of the course content. To the extent that this occurs and the results are used in promotion and tenure decisions, the assignment of untenured faculty to teach courses with an abstract course content which requires the use of judgment and inference may put the junior faculty at greater risk.

In the following paragraphs we arbitrarily group accounting courses according to whether they are generally perceived to be standards based, alternative approach based, or judgment based. We acknowledge that all courses of a given type (e.g., intermediate, tax, cost, or auditing) are not taught in the same manner, however, we believe that they generally lend themselves to being taught in a manner consistent with the groupings. While the groupings are useful for aggregating courses in this study, they are not critical to the study (we could and do look at individual courses).

Most financial accounting courses such as intermediate accounting and advanced accounting address accounting problems that tend to be based on professional accounting standards (e.g., Financial Accounting Standards Board Statements). Answers to many of the problems worked in

¹ The Accounting Education Change Commission appears to use the word structure as a measurement of students' abilities to arrive at objective vs. subjective solutions to course materials. Using this definition, structure would measure use of knowledge and rules vs. judgment, right answer vs. best answer, and certainty vs. uncertainty. This differs from the usual definition of structure in the education literature where it often refers to the degree of control exercised over student activities (see Strom and Hocevar [1982, 1990], Strom, et al

[1982], Vanier and Kallis [1984], and Lam [1985]).

these courses often have single, relatively objective answers. Examples include the capitalized value of a lease, the calculated amount of deferred income taxes, the accounting treatment of research and development costs, and the calculation of earnings per share. While uncertainties exist in dealing with these problems, they are seldom the focus of the course. Students are likely to produce a correct answer if they employ the appropriate accounting standard in an appropriate manner. Tax accounting courses also tend to have definitive answers. Identification of the appropriate tax law or regulation tends to direct students to a correct answer. In both financial and tax accounting courses, uncertainty can be minimized by learning the appropriate professional or regulatory standard. Therefore, we classify these courses as standard based for the purpose of our analysis.

Cost accounting and managerial accounting courses tend to recognize some uncertainty. For example, multiple methods of allocating indirect costs suggest that there may be multiple correct answers, but no one correct method in all circumstances. Similarly, different assumptions as to project lives, cash flows, rates of returns, etc. in a capital budgeting problem will produce different answers. Thus, while there are often guidelines to follow in solving problems in these courses, there tend to be alternatives that introduce some uncertainty. Therefore, we group these courses as alternative approach based for the purpose of our analysis.

Accounting systems and auditing courses tend to be more abstract than

the courses mentioned previously. There is seldom one correct way to design an accounting system, and different audit risks are likely to be assigned different importance by different students (and instructors). Generally accepted auditing standards are much more general than generally accepted accounting principles. Most problems have no numerical solutions. There is greater emphasis on judgment than rules. Evaluations of internal controls and determination of the sufficiency of evidence are usually subjective and often highly uncertain. Therefore, we group these courses as judgment based (abstract) for the purpose of our analysis.

Research Methodology

Data Selection

The Purdue student evaluation form is used by a number of U.S. universities and can be adapted to accommodate different questions. We obtained a list of the universities using the form from Purdue University (62 at the time of this study) and wrote the accounting departments at those universities to request a copy of the version of the form they used.² Fifty schools furnished SET forms in response to the request.

Because the purpose of the study was to determine whether a relationship exists between the accounting courses taught by an instructor and the evaluations of the instructor and the course, the following statements were selected from the SET forms to measure this relationship:

² The Purdue form permits the inclusion or exclusion of the various evaluation statements that comprise the form.

- (1) Overall, this instructor is among the best teachers I have known (INSTRUCTOR);
- (2) Overall, this course is among the best I have ever taken (COURSE); and
- (3) Expected course grade (EXGRADE), which is used as a control variable.

Of the fifty forms received, eight universities used forms that included all three aforementioned statements.³

The accounting faculty at the eight selected universities⁴ were asked to furnish the mean response for each of the three statements for each section of an undergraduate accounting course that they taught for the school year 1989-1990. Sixty-seven (41%) of 165 faculty members responded. Of the 67 responses, 49 (73%) were usable.⁵ The overall usable response rate was, therefore, approximately 30 percent.

The upper division accounting courses used in this study were Intermediate I, Intermediate II, Advanced Accounting, Tax, Cost/

Managerial,⁶ Accounting Systems, and Auditing. The 49 instructors taught a total of 189 sections during the 1989-90 period.

Course Hierarchy Analysis

Based on prior research, particularly that of DeBerg and Wilson [1990], and the theory developed earlier in this paper; we hypothesize that SET, as measured by both the student evaluation of the instructor (INSTRUCTOR) and the student evaluation of the course (COURSE) is a function of the type of course taught and the grade expected in the course.⁷

Because we hypothesize that accounting students generally tend to perceive accounting as a rule-oriented process and that they will feel uncomfortable in and assign lower SETs to accounting classes that have a higher proportion of alternative approach based and judgment based content, we anticipate that:

$$SET_{SB} > SET_{AB} > SET_{JB}$$

where:

³ We selected these three statements because they are summary statements that are likely to be relied upon in promotion and tenure decisions. A limitation of the study is that other questions were not included. Of course, the key question from a pedagogical standpoint (but not included on the Purdue form) is "how much was learned in the course."

⁴ The accounting faculty was defined as those listed in Hasselback [1989] above the rank of instructor and totaled 165.

⁵ Most of the unusable responses indicated that the faculty member had not retained the form or did not teach undergraduate courses.

⁶ We combined cost and managerial courses because of difficulty in distinguishing between the two. Although many of the courses were labeled managerial in the individual college catalogues, most were, by description, an extension of the first cost course, and the content was actually cost rather than managerial. Because of this combination we were unable to compare our findings with DeBerg and Wilson [1990] who found that instructors who taught cost are more likely to receive lower ratings.

⁷ We rely on randomization across the 49 instructors and 189 sections analyzed in this study to address differences in teaching skills of instructors across courses, however, as an anonymous reviewer noted, bias could be introduced if there are systematic differences in the teaching skills of instructors who choose to teach certain courses.

SET _{SB} =	SET for standard based courses (financial and tax accounting)
SET _{AB} =	SET for alternative approach based courses (cost and managerial accounting)
SET _{JB} =	SET for judgment based courses (accounting systems and auditing)

The upper division accounting courses are grouped according to their hypothesized structural groupings, i.e., standard based (Intermediate I and II, Advanced Accounting, and Tax), alternative approach based (Cost/Managerial), and judgment based (Accounting Systems and Auditing). Analysis of Covariance (ANCOVA) tests, with expected grade as a covariate, are performed using both the INSTRUCTOR and COURSE mean scores to determine whether significant differences exist between the groups. Further, the group means are compared to provide more detailed information about the differences between the means and to rank order the groups. To analyze the data further by individual course, Ordinary Least Squares (OLS) regression models that include the individual courses (as dummy variables) and the expected grade also are developed using SAS.

Results

The means and standard deviations of the variables INSTRUCTOR,

COURSE, and EXGRADE are shown for each course in Table 1.⁸

For each course, the mean of the instructor evaluations exceeds the mean of the course evaluations. While we have no empirical explanation as to the cause of this relationship, an obviously self-serving hypothesis is that the efforts of accounting instructors overcome student aversion to the content of their accounting courses. Based on an ANCOVA with course as the categorical variable, no significant difference was found with average expected grade across courses ($p = .605$).

The results of the ANCOVA analyses to test whether the instructor and course evaluations are affected by course content and/or expected grade are shown in Table 2. The test for interaction between course content and expected grade for both models was not significant ($p = .679$, $p = .801$), indicating that there is no significant interaction between these variables. An additional analysis was conducted which included the eight universities (assigning a code of 1 through 8) as an additional variable using a block design. The results indicate that the school variable was not significant in either model ($p = .770$, $p = .380$). Therefore, in the following analyses the schools were not included as an explanatory variable.

⁸ A review of normal probability plots suggests no significant departures from normality for these variables.

Table 1: Course Means and Standard Deviations for Instructor Evaluation (Instructor), Course Evaluation (Course), and Expected Grade (Exgrade)

<u>Course</u>	<u>n</u>	<u>Instructor</u>	<u>Course</u>	<u>Exgrade</u>
Standard Based:				
Intermediate I	34	3.4089 (.678)	3.1094 (.612)	2.9164 (.346)
Intermediate II	23	3.8203 (.616)	3.3923 (.511)	2.9219 (.341)
Advanced Accounting	16	4.3584 (.366)	3.9678 (.306)	3.1458 (.337)
Income Tax	32	4.0615 (.419)	3.7917 (.372)	3.0469 (.322)
Alternative Approach Based:				
Cost/Managerial	47	3.9378 (.630)	3.4816 (.474)	2.9847 (.508)
Judgment Based:				
Accounting Systems	17	2.6588 (.544)	2.2276 (.599)	2.9859 (.541)
Auditing	20	3.0156 (.337)	2.8780 (.374)	2.9998 (.430)

Standard deviations are in parentheses.

Instructor and Course are based on a Likert scale where 1 = Lowest, 5 = Highest.

Exgrade is based on a four point scale.

The results indicate that both models are significant (INSTRUCTOR, $F = 35.75$, $p < .0001$; COURSE, $F = 30.53$, $p < .0001$). From this we conclude that the course content and the expected grade are significant factors in explaining differences in the instructor and course evaluations.

The weighted means for the course content classifications (as derived from Table 1) are as follows:

1) INSTRUCTOR

- a. Standard Based - 3.8426
- b. Alternative Approach Based - 3.9378
- c. Judgment Based - 2.8517

2) COURSE

- a. Standard Based - 3.5101
- b. Alternative Approach Based - 3.4816

c. Judgment Based - 2.5792

The hierarchies of these means are in the following orders:

INSTRUCTOR: Alternative Approach Based > Standard Based > Judgment Based

COURSE: Standard Based > Alternative Approach Based > Judgment Based

The course means are in the hypothesized order, however, the instructor means differ in order from what is expected. Within these hierarchies there is little difference in the SET means for standard based and alternative approach based courses. The SET means for judgment based courses (Accounting Systems and Auditing) are, however, nearly one full "Likert point" below the means of the

standard based and alternative approach based courses.

A priori orthogonal contrasts are employed using the Tukey - Kramer method to determine which differences (if any) among means are statistically significant. The contrast results in Table 3 show significant differences

between both the standard based and the alternative approach based categories vis-a-vis the judgment based category with respect to both instructor and course. A significant difference is not found between the standard based and alternative approach based classifications for either instructor or course.

Table 2: Analysis of Covariance for Instructor and Course Evaluations

Dependent Variable: INSTRUCTOR

<u>Source</u>	<u>DF</u>	<u>Sum of Squares</u>	<u>Mean Square</u>	<u>F Value</u>	<u>P Value</u>
Course Content	2	31.274	15.637	45.34	.0001
ExGrade	1	5.716	5.716	16.57	.0001
Error	185	63.805	0.345		
Total	188	100.795			

Model F = 35.75, $p < .0001$

Dependent Variable: COURSE

<u>Source</u>	<u>DF</u>	<u>Sum of Squares</u>	<u>Mean Square</u>	<u>F Value</u>	<u>P Value</u>
Course Content	2	25.328	12.664	42.00	.0001
ExGrade	1	2.293	2.293	6.00	.0064
Error	185	55.789	0.302		
Total	188	83.410			

Model F = 30.53, $p < .0001$

Table 3: Contrast Analysis by Course Content Groupings for Instructor and Course Evaluations

Dependent Variable: INSTRUCTOR

	<u>F Value</u>	<u>p Value</u>
Standard Based vs. Alternative Approach Based	0.91	.3409
Standard Based vs. Judgment Based	77.96	.0001
Alternative Approach Based vs Judgment Based	71.28	.0001

Dependent Variable: COURSE

	<u>F Value</u>	<u>p Value</u>
Standard Based vs. Alternative Approach Based	.08	.7837
Standard Based vs. Judgment Based	78.67	.0001
Alternative Approach Based vs. Judgment Based	56.19	.0001

These results suggest that SET ratings are higher in the standard based and alternative approach based courses than in the judgment based courses. There is some question, however, as to whether the course and instructor evaluations for Intermediate I and II classes are representative of solely upper division accounting majors. At the universities included in our sample, Finance majors were required to take

Intermediate I. Intermediate II was not required, but could be used as an elective. Additional ANCOVA and contrast analyses thus are performed after deleting the Intermediate I and II instructor and course evaluations from the standard based classification.

The results of the ANCOVA analyses on the models excluding Intermediate I and II are shown in Table 4.

Table 4: Analysis of Covariance for Instructor and Course Evaluations (Rule Based Contains Advanced Accounting and Tax Only)

Dependent Variable: INSTRUCTOR

Source	DF	Sum of Squares	Mean Square	F Value	p Value
Course Content	2	39.435	19.717	81.57	.0001
ExGrade	1	3.801	3.801	15.73	.0001
Error	128	30.940	0.242		
Total	131	74.176			

Model F = 59.62, $p < .0001$

Dependent Variable: COURSE

Source	DF	Sum of Squares	Mean Square	F Value	p Value
Course Content	2	34.796	17.398	79.03	.0001
ExGrade	1	.463	.463	2.10	.1494
Error	128	28.178	0.220		
Total	131	63.437			

Model F = 53.39, $p < .0001$

Both models are significant (Instructor, $F = 59.62$, $p < .0001$; Course, $F = 53.39$, $p < .0001$) and the test for interaction between course content grouping and expected grade is again not significant ($p = .563$, $p = .671$). The course content grouping variable is significant in both models. The course content grouping weighted means remain the same for the alternative approach based and judgment based categories. However, the weighted means for the standard

based courses excluding Intermediate I and II are now as follows:

- 1) INSTRUCTOR
 - a. Standard Based - 4.1605
- 2) COURSE
 - a. Standard Based - 3.8504

The course content classification means hierarchies excluding Intermediate I and II are now both in the hypothesized order:

INSTRUCTOR: Standard Based > Alternative Approach Based > Judgment Based

COURSE: Standard Based > Alternative Approach Based > Judgment Based

The results of the contrasts of the revised SET means are shown in Table 5. Although the significance level for

$\text{INSTRUCTOR}_{\text{SB}}$ vs $\text{INSTRUCTOR}_{\text{AB}}$ is less strong, significant differences do exist between all course content grouping comparisons.

Table 5: Contrast Analysis by Course Content Groupings for Instructor and Course Evaluations (Standard Based Contains Advanced Accounting & Tax Only)

Dependent Variable: INSTRUCTOR		
	F Value	p Value
Standard Based vs. Alternative Approach Based	3.36	.0693
Standard Based vs. Judgment Based	139.67	.0001
Alternative Approach Based vs. Judgment Based	101.65	.0001
Dependent Variable: COURSE		
Standard Based vs. Alternative Approach Based	13.55	.0003
Standard Based vs. Judgment Based	149.63	.0001
Alternative Approach Based vs. Judgment Based	76.78	.0001

These results support our expectation that student evaluations in accounting will be higher for standard based courses and will decrease as the level of abstractness/uncertainty in course content increases.

The previous discussions have focused on the grouping of accounting courses as standard based, alternative approach based, and judgment based. The results of the OLS regressions permit an assessment of the effect of individual courses taught on instructor evaluations (Table 6) and course evaluations (Table 7).

The signs of the significant coefficients in the INSTRUCTOR model (Table 6) are positive for Advanced Accounting, Tax, and Cost/Managerial and are negative for Accounting Systems and Auditing. These results suggest that, for individual

courses, those instructors teaching Accounting Systems and Auditing on average receive lower student evaluations than those instructors teaching Advanced Accounting, Tax, or Cost/Managerial. With respect to Accounting Systems and Auditing, these results are consistent with those of DeBerg and Wilson [1988].

Table 7 shows the results of the regression model with the course evaluation as the dependent variable. Only three coefficients in the model are significant: Intermediate I, Accounting Systems, and Auditing. In each case the sign of the coefficient is negative, which suggests that on average students give lower evaluations to these courses than to others in the model. This is consistent with the unstructured nature of the Accounting Systems and Auditing courses and the inclusion of less motivated nonaccounting majors in Intermediate I.

Table 6: Analysis of Multiple Regression Coefficients (Dependent Variable: INSTRUCTOR)

<u>Variable</u>	<u>Coefficient</u>	<u>Standard Error</u>	<u>p-value</u>
Intercept	2.5251	0.3982	0.0001
Course:			
Standard Based			
Intermediate I	-0.0697	0.2616	0.7901
Intermediate II	0.3398	0.2697	0.2083
Advanced Accounting	0.8048	0.2766	0.0041
Income Tax	0.5402	0.2608	0.0397
Alternative Approach			
Cost/Managerial	0.4368	0.2560	0.0896
Judgment Based			
Accounting Systems	-0.8425	0.2764	0.0026
Auditing	-0.4903	0.2715	0.0726
Expected Grade	0.3270	0.0931	0.0006
Model F. 20.85; Adjusted R ² .4513			

Table 7: Analysis of Multiple Regression Coefficients (Dependent Variable: COURSE)

<u>Variable</u>	<u>Coefficient</u>	<u>Standard Error</u>	<u>p-value</u>
Intercept	2.9929	0.3526	0.0001
Course:			
Standard Based			
Intermediate I	-0.4540	0.2317	0.0515
Intermediate II	-0.1722	0.2384	0.4709
Advanced Accounting	0.3595	0.2449	0.1439
Income Tax	0.2028	0.2309	0.3811
Alternative Approach			
Cost/Managerial	0.0952	0.2267	0.6750
Judgment Based			
Accounting Systems	-1.3494	0.2447	0.0001
Auditing	-0.7017	0.2405	0.0040
Expected Grade	0.1956	0.0824	0.0187
Model F. 23.55; Adjusted R ² .4832			

Summary and Conclusion

The results of this study provide empirical evidence that the level of abstractness/ uncertainty inherent in the course content of accounting courses affects student evaluations of teaching. As the content of accounting courses (excluding Intermediate I and II) becomes more abstract, SET ratings for both the instructor and the course were found to be lower. Judgment based courses (Accounting Systems and Auditing) produced significantly lower SETs for instructor and course than did either the standard based or alternative approach based categories.

Instructors of Accounting Systems and Auditing thus may anticipate receiving, on average, lower instructor and course evaluations than instructors of other accounting courses. Where

promotion, tenure, or annual pay decisions are predicated to an extent on student evaluations, both administrators and instructors may wish to consider these findings.

Additionally, since groups such as the AECC are advocating a change to more unstructured, multi discipline teaching approaches and the introduction of alternatives and judgment into all accounting courses one may anticipate, at least initially, some lowering of teaching and course SETs. While student evaluations should not drive accounting pedagogy, some consideration of the effect of the recommended changes on teacher/course evaluations may be appropriate. These groups may wish to investigate means of encouraging student responsiveness to more unstructured teaching approaches.

References

- Accounting Education Change Commission, *Objectives of Education for Accountants* (Bainbridge Island, WA: AECC, 1990).
- Benke, R. L. and R. H. Hermanson, "Measuring Quality Teaching - II," *Management Accounting* (February 1988), pp. 40-41.
- Biglan, A., "The Characteristics of Subject Matter in Different Academic Areas," *Journal of Applied Psychology* (1973), Vol. 57, No. 3, pp. 195-203.
- Briscoe, N.R., "Effects of Grades on Student Evaluations of Accounting Professors: Actual vs. Expected," *Proceedings of the Southwest Regional Meeting of the American Accounting Association* (March 1992).
- Cashin, W.E., "Student Ratings of Teaching: A Summary of the Research," *IDEA Paper No. 20* (Center for Faculty Evaluation and Development, Kansas State University, September 1988).
- DeBerg, C.L. and J.R. Wilson, "An Empirical Investigation of the Potential Confounding Variables in Student Evaluation of Teaching," *Journal of Accounting Education* (Spring 1990), pp. 37-62.
- Feldman, K. A. "Course Characteristics and College Students' Ratings of Their Teachers: What We Know and What We Don't," *Research in Higher Education* (1978), pp. 199-242.
- Glezen, G. W. and W. C. Letzkus, "Student Perceptions: Potential Obstacles to Accounting Education" (1991) University of Arkansas working paper.

- Hasselback, J.R., *1989 Accounting Faculty Directory* (Englewood Cliffs, NJ: Prentice-Hall, 1989).
- Kreuze, J.G. and G.E. Newell, "Student Ratings of Accounting Instructors: A Search for Important Determinants," *Journal of Accounting Education* (1987), Vol. 5, pp. 87-98.
- Kulik, J. A. and C. C. Kulik, "Student Ratings of Instruction," *Teaching of Psychology* (1974), pp. 51-57.
- Lam, Y.L.J., "Longitudinal Relationships of Selected Course Structure, Cognitive and Affective Factors and Classroom Behaviors of Adult Learners," *Educational Research Quarterly*, (1985), Vol. 9, No. 3, pp. 28-36.
- Marsh, H. W. and J. U. Overall, "The Relative Influence of Course Level, Course Type, and Instructor on Students' Evaluations of College Teaching," *American Educational Research Journal* (Spring 1981), pp. 103-112.
- McKeachie, W. J., "Student Ratings of Faculty: A Reprise," *Academe* (October 1979), pp. 384-397.
- Neumann, Y. and L. Neumann, "Characteristics of Academic Areas and Students' Evaluation of Instruction," *Research in Higher Education* (1983) Vol. 19, No. 3, pp. 323-334.
- Neumann, L. and Y. Neumann, "Determinants of Students' Instructional Evaluation: A Comparison of Four Levels of Academic Areas," *Journal of Educational Research* (1985) Vol. 78, No. 3, pp. 152-158.
- Porcano, T.M. "An Empirical Analysis of Some Factors Affecting Student Performance," *Journal of Accounting Education*, (1984), Vol. 2, No. 2, pp. 111-126.
- Schwab, D.P. *Manual for the Course Evaluation Instrument* (Madison, WI: Graduate School of Business and Industrial Relations Research Institute, University of Wisconsin-Madison, 1976).
- Shute, G. E., *Accounting Students and Abstract Reasoning: An Exploratory Study* (Sarasota, FL: AAA, 1979).
- Strom, B. and D. Hocevar, "Course Structure and Student Satisfaction: An Attribute-Treatment Interaction Analysis," *Educational Research Quarterly*, (1982) Vol. 7, No. 1, pp. 21-30.
- Strom, B. and D. Hocevar, "Preference for Course Structure and Student Control," *Educational Research Quarterly*, (1990), Vol. 14, No. 3, pp. 21-25.
- Strom, B., D. Hocevar, J. Zimmer, and W. Michael, "The Course Structure Inventory: Discriminate and Construct Validity," *Educational and Psychological Measurement*, (1982), 42, pp. 1125-1133.
- Williams, J. R. , M. G. Tiller, H. C. Herring III, and J. H. Scheiner, *A Framework for the Development of Accounting Education Research* (Sarasota, FL: AAA, 1988).
- Wright, P., R. Whittington, and G.E. Whittenburg, "Student Ratings of Teaching Effectiveness: What the Research Reveals," *Journal of Accounting Education*, (1984) Vol. 2, No. 2, pp. 5-30.
- Vanier, D.J. and M.J. Kallis, "Course Structure Preferences: The Discriminating Student," *Journal of Research and Development in Education*, (1984), Vol. 17, No. 3, pp. 35-45.
- Yunker, P.J. and J. Sterner, "A Survey of Faculty Performance Evaluation in Accounting," *The Accounting Educators' Journal*, (Fall 1988), pp. 63-74.