# Measurement Of Quality Attributes In Accounting Education Programs: Perceptions Of Certified Public Accountants

Thomas F. Brubaker (E-mail: brubaker-t@mssu.edu), Missouri Southern State University

#### Abstract

Higher education institutions must address quality issues relating to diverse user needs. Students, their families, employers, governing boards and society in general are all interested in maintaining and improving the quality of higher education. Specific attributes of quality in higher education are difficult to define, and may vary according to the needs of user groups. This study examines quality attributes of educational programs from the perspective of one particular user group: certified public accountants (CPAs).

#### 1. Introduction

n order to improve the process of higher education quality assessment, it is important to examine how various groups perceive the validity of measurement variables commonly used to assess quality. CPAs comprise one group interested in quality assessment of higher education of accounting programs. The objective of this study is to examine how CPAs perceive the relevance of selected measurement criteria in assessing quality in accounting education programs.

### 2. Statement of the Problem

In order for higher education assessment to be effective, the needs of the users of assessment information must be considered. This issue may be addressed by posing the following question to the users of assessment information: "What attributes should be measured through the assessment process?" CPAs are concerned with the quality of higher education accounting programs because the quality of graduates will impact the quality of the accounting profession. The problem of this study is to examine how one specific group of users of assessment information, CPAs, perceive the validity of a set of measurement criteria currently used to assess quality in accounting programs.

# 3. Purpose of the Study

The purpose of the study was to determine the degree to which CPAs regard certain commonly used measurement variables to be valid indicators of quality in accounting education programs. The study was designed to explore any potential disparity between what is currently being used to assess quality in accounting programs and what one user group (CPAs) believes should be used to assess quality.

# 4. Research Question

The following research question was raised in order to accomplish the purpose of this study: "To what degree do CPAs consider certain commonly used variables to be valid indicators of quality attributes in accounting education programs?"

#### 5. Review of the Literature

Existing studies point out the difficulty in precisely defining the meaning of quality in higher education programs. Mayhew, Ford, and Hubbard (1990, p. 25) observed the dilemma associated with attempts at defining quality: "While quality as a concept shares certain abstract dimensions whenever it is discussed, it lends itself to so many different perspectives that meaningful dialogue is impossible unless the participants agree on a common approach".

The specific meaning of quality varies by the nature of an organization or product, according to Ansari, Bell, Klammer, and Lawrence (1997). Quality in higher education could be expressed in terms of general literacy, job skills, thinking ability, communication skills, or other attributes. Factors such as student access to education, new technology, and the caliber of faculty and performance affect quality in higher education, although they are sometimes difficult to measure. Higher education quality is important, not only because it is integral to America's future, but also because it is a chief initiative of national and state government (Palmer, 1998).

Most of the research to date has been directed at broad, institutional-based measures of quality, without examining assessment needs of specific user groups. This study attempts to explore how one targeted user group (CPAs) perceive the validity of certain currently used assessment variables.

# 6. Methodology

Quality attributes commonly associated with the input, process and output dimensions of accounting education programs were grouped into five categories:

- 1. Quality of accounting program admission standards relating to incoming students (input)
- 2. Quality of teaching (process)
- 3. Quality of faculty research (process)
- 4. Quality of faculty service (process)
- 5. Quality of accounting graduates (output)

The attributes selected for this study were not intended to comprise an all inclusive taxonomy of quality attributes of accounting programs. Other quality attributes exist, but the indicated attributes were selected on the basis of their prevalence in the assessment process for accounting and other programs. The attributes are assumed to have relevance to assessments of individual colleges and universities, institutional systems, and assessments at the state and national level. It was also assumed that the respondents of this study (CPAs) possess a basic familiarity with the attributes and variables used to measure them.

Using the five basic quality attributes, 16 variables were identified as possible methods for measuring the five quality attributes. For example, the variable "student evaluations of faculty" was selected as one of several variables commonly used to measure the attribute "quality of teaching". The 16 methods selected are assumed to be representative of all measurement methods currently used to assess accounting program quality. The survey discloses the fact that only a few of the many potential variables available were selected for this study.

The CPAs participating in this study were asked to respond to the statement, "The indicated variable is a valid indicator of the quality attribute for accounting programs", using a five-point Likert scale anchored with 1 as "strongly disagree with the statement" and 5 as "strongly agree with the statement". The quality attributes and measurement variables were incorporated into a survey questionnaire, as shown in Figure 1. The survey questionnaire was designed to measure how CPAs perceive the validity of certain variables commonly used in accounting education program assessment.

# 7. Analysis of Results

Descriptive statistics, based on survey data obtained from a random sample of 92 CPAs in the north Texas area, are summarized in Table 1.

Mean responses for the 16 items were rank ordered and the range, median and standard deviation for each of the items was calculated. The findings indicated that approximately 62% of the respondents either agreed or strongly agreed that the 16 variables were valid measures of the corresponding quality attributes. 25% of the respondents were undecided or not sure about the validity of the variables and 13% either disagreed or strongly disagreed that the items were valid measures of the corresponding quality attributes. The overall mean response on all 16 variables was 3.63.

#### 8. Conclusion

The results of the study suggest that CPAs perceive most of the indicated variables identified in this study as appropriate measures of the quality of accounting education programs. In order to improve quality in higher education, educators must continuously monitor the needs of its users. This study provides some insight into the assessment needs of one group of users: CPAs. Future research should be conducted to study the perceptions of other user groups with additional measurement variables.

## 9. Suggestions for Future Research

Based on the findings of this study, the following recommendations for further research are proposed:

- 1. Perform a replication of this study using a larger sample from a larger geographical area.
- 2. This study examined the perceptions of 16 commonly used measures of quality. Perceptions of additional measures of quality, such as student's rank in high school class, retention rates, use of internship programs, and pass rates on the CPA exam, could be examined in future studies.
- 3. Examine how other user groups perceive quality attributes of accounting education programs. Accounting faculty, administrators at colleges and universities, are potential target populations which could be used in future studies.

By gaining additional insight into the perceived importance of quality attributes by various user groups, colleges and universities will be able to offer accounting programs that match the needs of users.

#### References

- 1. <u>AICPA member tape</u> [Electronic Data Tape]. New York: American Institute of Certified Public Accountants [Producer and Distributor], 2000.
- 2. Ansari, S., Bell, J., Klammer, T., & Lawrence, C. "Strategy and management accounting", In S. Ansari, J. Bell, T. Klammer, & C. Lawrence (Eds.), *Management accounting: A strategic focus plus*. (p. 8). McGraw-Hill, New York, 1997.
- 3. Brubaker, T. F. (2001). "Perceptions of assurance service services performed by certified public accountants: Higher education assessment applications," *Unpublished dissertation*, University of North Texas.
- 4. Mayhew, L. B., Ford, P. J., & Hubbard, D. L. *The quest for quality: The challenge for undergraduate education in the 1990s.* Jossey-Bass, San Francisco, 1990.
- 5. Palmer, R. "Grade A' undergraduate education: Where are we now? Where are we growing?", *Texas Woman's University Times*. Vol. 2, p. 1, Fall, 1998.

# Figure 1 Excerpt From Survey: Variables Used To Measure Quality In Accounting Programs

Some quality attributes in higher education accounting programs can be assessed by measuring certain variables. The variables are assumed to be valid indicators of various quality attributes. While there are many variables that could be selected for assessing quality, only a few are identified for purposes of this study.

Listed below are some commonly used examples of quality attributes relating to accounting programs. Next to each quality attribute are several variables commonly used to assess the indicated quality attribute.

Please circle one of the numbers (1 through 5, as described below) to indicate the extent to which you agree or disagree with the following statement:

"The indicated variable is a valid indicator of the quality attribute for accounting programs" (items 8 through 23)

- 1 = Strongly disagree with the statement
- 2 =Disagree with the statement
- 3 =Undecided or not sure
- 4 = Agree with the statement
- 5 =Strongly agree with the statement

| Quality attribute:            | Variables used to measure quality attribute: | PLEASE CIRCLE YOUR<br>RESPONSE BELOW: |     |   |   |             |  |
|-------------------------------|--|---------------------------------------|-----|---|---|-------------|--|
| Quality of Accounting Program | 8. Average SAT Scores                        | 1                                     | 2   | 3 | 4 | 5           |  |
| Admission Standards           | 9. Acceptance Rate                           | 1                                     | 2 2 | 3 | 4 | 5           |  |
| Relating to Incoming Students | 10. Diversity                                | 1                                     | 2   | 3 | 4 | 5<br>5<br>5 |  |
|                               | 11. Average GPA                              | 1                                     | 2   | 3 | 4 | 5           |  |
|                               | 12. Student evaluations of faculty           | 1                                     | 2   | 3 | 4 | 5           |  |
| Quality of Teaching           | 13. Peer evaluations of faculty              | 1                                     | 2   | 3 | 4 | 5           |  |
|                               | 14. Faculty-to-Student ratios                | 1                                     | 2   | 3 |   | 5           |  |
|                               | 15. Number of faculty publications           | 1                                     | 2   | 3 | 4 | 5           |  |
|                               | 16. Types of faculty publications            | 1                                     | 2   | 3 | 4 | 5           |  |
| Quality of Faculty Research   | 17. Number of faculty research               |                                       |     |   |   |             |  |
|                               | grants                                       | 1                                     | 2   | 3 | 4 | 5           |  |
|                               | 18. Types of faculty research                |                                       |     |   |   |             |  |
|                               | grants                                       | 1                                     | 2   | 3 | 4 | 5           |  |
|                               | 19. Committee assignments                    | 1                                     | 2   | 3 | 4 | 5           |  |
| Quality of Faculty Service    | 20. Participation in conferences,            |                                       |     |   |   |             |  |
|                               | seminars, and workshops                      | 1                                     | 2   | 3 | 4 | 5           |  |
| Quality of Accounting         | 21. Admission rates into graduate            |                                       |     |   |   |             |  |
| Graduates                     | and professional programs                    | 1                                     | 2   | 3 | 4 | 5           |  |
|                               | 22. Ranges of salary offerings               | 1                                     | 2   | 3 | 4 | 5           |  |
|                               | 23. Placement information                    | 1                                     | 2   | 3 | 4 | 5           |  |

Table 1
Perceptions Of Variables Commonly Used To Measure Quality Attributes In Accounting Programs:
Descriptive Statistics

| Variables used to measure quality attribute, ranked in order of mean response | Rank | Mean<br>Response | Minimum                       | Maximum | Standard<br>Deviation | Median | Frequencies of responses to the statement:  "The indicated variable is a valid indicator of the quality attribute for accounting programs"  Responses: |             |                                |          |                      |
|---|------|------------------|-------------------------------|---------|-----------------------|--------|--|-------------|--------------------------------|----------|----------------------|
|   |      |                  |                               |         |                       |        | 1= strongly<br>disagree  | 2= disagree | 3=<br>undecided<br>or not sure | 4= agree | 5= strongly<br>agree |
| Placement information   | 1    | 4.08             | 2                             | 5       | .73                   | 4.00   | -  | 1           | 18                             | 46       | 27                   |
| Faculty-to-Student ratios   | 2    | 4.07             | 2                             | 5       | .86                   | 4.00   | -  | 6           | 13                             | 42       | 31                   |
| Admission rates into  |      |                  |                               |         |                       |        |  |             |                                |          |                      |
| graduate and professional programs  | 3    | 4.03             | 2                             | 5       | .75                   | 4.00   | -  | 5           | 9                              | 56       | 22                   |
| Average GPA   | 4    | 3.99             | 1                             | 5       | .82                   | 4.00   | 3  | 2           | 7                              | 61       | 19                   |
| Participation in conferences,   |      |                  |                               |         |                       |        |  |             |                                |          |                      |
| seminars, and workshops   | 5    | 3.92             | 1                             | 5       | .88                   | 4.00   | 1  | 5           | 18                             | 44       | 24                   |
| Ranges of salary offerings  | 6    | 3.86             | 1                             | 5       | .96                   | 4.00   | 1  | 10          | 13                             | 45       | 23                   |
| Student evaluations of faculty  | 7    | 3.85             | 1                             | 5       | 1.00                  | 4.00   | 2  | 9           | 15                             | 41       | 25                   |
| Peer evaluations of faculty   | 8    | 3.82             | 2                             | 5       | .80                   | 4.00   | 0  | 8           | 15                             | 55       | 14                   |
| Average SAT Scores  | 9    | 3.63             | 1                             | 5       | .93                   | 4.00   | 3  | 11          | 12                             | 57       | 9                    |
| Types of faculty publications   | 10   | 3.54             | 1                             | 5       | 1.02                  | 4.00   | 4  | 10          | 24                             | 40       | 14                   |
| Types of faculty research grants  | 11   | 3.53             | 1                             | 5       | .95                   | 4.00   | 4  | 4           | 37                             | 33       | 14                   |
| Number of faculty research grants   | 12   | 3.35             | 1                             | 5       | .95                   | 3.00   | 5  | 9           | 34                             | 37       | 7                    |
| Committee assignments   | 13   | 3.23             | 1                             | 5       | .88                   | 3.00   | 1  | 17          | 41                             | 26       | 7                    |
| Acceptance Rate   | 14   | 3.17             | 1                             | 5       | .92                   | 3.00   | 5  | 13          | 39                             | 31       | 4                    |
| Number of faculty publications  | 15   | 3.16             | 1                             | 5       | 1.03                  | 3.00   | 8  | 14          | 29                             | 37       | 4                    |
| Diversity   | 16   | 2.85             | 1                             | 5       | 1.02                  | 3.00   | 9  | 23          | 38                             | 17       | 5                    |
| Grand mean (mean of mean responses)   |      | 3.63             | Frequency of responses        |         |                       |        | 46   | 147         | 362                            | 668      | 249                  |
|   |      |                  | Percentage of total responses |         |                       |        |  | 10.0%       | 24.6%                          | 45.4%    | 16.9%                |

Notes