Developments In Business Simulation & Experiential Exercises, Volume 19, 1992

MEASURING "QUALITY" IN MANAGEMENT OF BUSINESS PEDAGOGY

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ABSTRACT

The focus of this year's theme of "Total Quality Management in Business Pedagogy" for academics, business and government promotes an attempt to measure "quality from these sources. A simplistic model is demonstrated using cases prepared for the Small Business Administration to stimulate thought and discussion on the evaluation of "quality".

INTRODUCTION

"Quality" management of the pedagogy in the changing nature of business requires continued evaluation of the methods and individuals. The measurement of "quality" in the pedagogy is essential to controlling and improving the process. Students, faculty, school administrators, business executives and government officials all contribute to the evaluation in one way or another. Probably the most common method is to use some sort of numerical evaluation as information in the subjective evaluation that is ultimately made.

The simplistic model presented in this paper asks participants to evaluate an undefined term, quality," of a project, course, individual, or curriculum on a scale of one to five with five being best and combines equally weighted objective and subjective evaluations from available sources. Comparing evaluations can help select competing alternatives.

MODEL DEMONSTRATION

The demonstration uses equally weighted evaluations from the students, instructor, business and government to evaluate the "quality" of five projects recommending computing equipment, prepared by small groups of university students and submitted to the Small Business Administration (SBA) for consideration for funding (see Table 1). Students' input is based on their experience with different methods and instructors. Their average evaluation of the "value" of the course was used to assign the quality" ratings in this example. The instructor's input is based on three subjective and two objective evaluations recorded as numerical scores. Evaluation of the project by the business is based on the arithmetic average of an evaluation form rating five aspects of the project. Input from the SBA consists of a single subjective evaluation based on the information it has received.

Since the decision of which projects to fund rests with government officials, accuracy of the evaluation should be of particular importance to the "quality" of its management. The decision, of course, can depend on many factors not included in the numerical ratings. Although this demonstration evaluates projects, pedagogy can also be evaluated using similar inputs.

DISCUSSION

"Quality" in management of business pedagogy is a measure of management's success in choosing the most valuable skills, knowledge, methods and individuals that constitute the pedagogy. The evaluation of teaching methods, for example, can play an important role in improving pedagogy. The value of a computer simulation game must sometimes be compared to that of an actual business experience as pedagogy is adapted to suit the changing business environment. Good measurements are essential in achieving accurate evaluations. William Zikmund (1991) lists three criteria for good measurement: reliability, validity and sensitivity.

Reliability measures the extent to which measures yield consistent results. If the evaluation method produces the same result when it is repeated by the same evaluators for the same projects, it is internally consistent. If the evaluation method produces similar results when it is repeated for the same projects by other evaluators, it is externally consistent. The mathematical property of multiple measurements that provides the basis for the central limit theorem tends to improve consistency as the number of measurements increases. For internal consistency, this means breaking the evaluation into components usually improves consistency. It also allows the measurement o consistency. By the same principle, increasing the number of evaluators usually increases external consistency.

Validity measures the extent to which a measurement measures what it is supposed to measure. This is particularly important, yet difficult, in measurements of business pedagogy. Value and quality, for example, have different meanings; quality refers to performance while value compares benefits to cost. In some situations, the value of a project, individual, method or pedagogy can be low even though the quality is high; even though the performance was excellent, it was not the most valuable thing to do with the resources. Value is usually computed by dividing the quality of the performance by its cost. Quality management of business pedagogy requires selection of the most valuable methods.

TABLE 1
PROJECT EVALUATION SCORES (HYPOTHETICAL)

Projects / Sources	1	2	3	4	5
Students	4	3	5	2	4
Instructor	4	2	3	2	5
Business	5	3	4	5	5
Government	2	2	1	3	3
Totals	15	10	13	12	17
Average	3.75	2.50	3.25	3.00	4.25
Rank	2	5	3	4	1

Sensitivity measures an instrument's (such as an evaluation form's) ability to distinguish small changes. Reluctance of faculty members to make distinctions between the performance of colleagues, for example, reduces sensitivity. Increasing the range of possible scores on an evaluation form tends to improve sensitivity.

The model used to combine measurements can also have a significant impact on the evaluation. Ranking by the average of several factors, for example, may produce different results than setting minimal requirements for these factors. This is demonstrated in the ratings in Table I; ranking by averages leaves project 2 with the lowest evaluation, while setting a minimal standard of two in each category eliminates project 3, yet finds project 2 acceptable. The model used by the American Assembly of Collegiate Schools of Business combines these methods by setting minimal standards in several areas, while combining several factors from several sources for an overall rating.

CONCLUSION

Although many good evaluation forms and methods are used to help evaluate the "quality of business pedagogy, the final judgement is usually at least partially subjective and can vary widely between individuals. Consequently, accuracy in the method is a problem. There are a few principles that can help improve accuracy: Numerical models often do not appropriately weight all factors. Increasing the number of individual sources tends to improve reliability. Increasing the number of factors in the measurement from each source also tends to improve reliability. Identifying exactly what is being measured helps improve validity. Increasing the range of possible scores tends to improve sensitivity. These principles, of course, must be limited in practical applications.

The model and criteria used in the evaluation can have a significant impact on the results. The example using SBA cases demonstrates a simplistic way of combining evaluations in a numerical model and illustrates the impact of different evaluation criteria.

Although numerical measurements and evaluation models do differ and none is completely accurate, most evidence implies that the development of such methods is one of the most promising ways of improving the "quality" in management of business pedagogy.

REFERENCES

Zikmund, W. G. (1991) Business Research Methods, (3rd ed.) Orlando, FL: The Dryden Press.