DOCUMENT RESUME

ED 384 107   EA 026 790

AUTHOR   Gunter, Glenda A.
TITLE   The Quality of·Life--Value-Added Index for
              Education.
PUB DATE   Nov 94
NOTE   13p.; Paper presented at the Annual Meeting of the
              Mid-South Educational Research Association
              (Nashville, TN, November 9-11, 1994).
PUB TYPE   Reports - Research/Technical (143) --
              Speeches/Conference Papers (150)

EDRS PRICE   MF01/PC01 Plus Postage.
DESCRIPTORS   *Educational Assessment; Educational Quality;
              Elementary Secondary Education; *Evaluation Criteria;
              Evaluation Methods; Indexes; *School Community
              Relationship
IDENTIFIERS   Value Added

ABSTRACT
              This paper presents findings from a study that
developed a model process and created a Quality of Life-Value-Added
Index for Education. The model helps communities assess the
value-added characteristics of education by providing the methods
necessary to evaluate the value added of their schools. "Value-added"
refers to the value that schools add to the entire community. The
study utilized the Delphi technique to develop a profile list of
priority values. A list of 100 variables was presented to a
blue-ribbon panel comprised of teachers, principals, parents,
professors, students, and administrators throughout Mississippi.
Participants ranked the variables that contributed to the quality of
life in a community. A three-round Delphi process and factor analysis
reduced the original list to 13 variables, which were ranked in order
of importance. After modification, the index can be used to
supplement the America Goals 2000 Community Report Card. (LMI)

ED 384 107

THE QUALITY OF LIFE -

VALUE-ADDED INDEX FOR EDUCATION

Glenda A. Gunter, Ph.D.

Troy State University at Dothan

Running head: THE QUALITY OF LIFE

EA 026 790

2

Abstract

The purpose of this research was to develop a model process and create a Quality of Life-Value-Added Index for Education. This model process should provide useful information to communities implementing America Goals 2000 school improvement efforts and to other districts. The results will assist local communities in assessing the value-added characteristics of education by providing the methods necessary to evaluate the value added of their schools. This Delphi study utilized a sequence of sorting procedures to determine a priority rank of a profile list of variables. The Delphi technique and factor analysis statistical procedures reduced the list of 100 variables to 13 variables ranked by order of importance. After refinement and improvements are implemented, the Quality of Life-Value-Added Index can be used as a supplement to the America Goals 2000 Community Report Card.

The Quality of Life -

Value Added Index for Education

The Goals for America 2000, requires participating school districts to develop an annual Community Report Card to assess progress toward the achievement of the National Education Goals. By legislative mandate, the Mississippi State Department of Education has begun producing annual School Report Cards for each school district. Experience in evaluation of school districts by Program for Research and Evaluation in Public School, Inc. (PREPS) at Mississippi State University has demonstrated that a full understanding of school effectiveness requires an understanding of a frame of reference that includes social and economic factors as well as quality of life in a community.

The purpose of this project was to develop a model process and create a Quality of Life-Value-Added Index for Education. This model process should provide useful information to communities implementing America Goals 2000 school improvement efforts and to other districts. The results will assist local communities in assessing the value-added characteristics of education by providing the methods necessary to evaluate the added value of their schools. The index can be used not only by America Goals 2000 communities but by all school districts by

providing information to the public about contributions of the local public schools to the quality of life within the community.

The Quality of Life-Value-Added index research was funded through a grant from the National Aeronautics and Space Administration/Stennis Space Center (NASA/SSC). This project is consistent with the Stennis Space Center's involvement with educational programs that outreach to the community colleges and universities and is supportive of strategies and federal mandates to meet the National Education Goals (Swanson, 1991).

Literature Review

Guthrie (1993) stated that education needs a composite indicator that could estimate the value of school systems and provide an accurate picture of the value added characteristics of an education system. Measures currently being used to evaluate students and assess school systems are inadequate to evaluate the total uniqueness of a learning environment. The current indices do not access life in the community and its impact on the personal lives of those who depend on the community and the school system. A school system exists in a community based environment and can only be studied by assessing the value added characteristics of that school system.

Education as Value Added to the Community

Typically, schools have been studied as if they were separate rather than an integral part of the community. Research has shown that schools and the community have a unique relationship and should be valued as a whole unit (Prince, 1989). Schools themselves are unique communities within a larger community. As a result, schools add value to the entire community (Hendrikson, 1985).

The Carnegie Foundation for the Advancement of Teaching identified one of the four essential goals of a high school education should be the involvement of all students in activities that fulfill their social and civic obligations through school and community services. Other studies have recommended that students become involved in community service projects (Wagner, 1989). Furthermore, school systems should interact with the community in the education of students through community-based education. These community-based education programs have been found to increase students' motivation through this interaction (Brown, 1990).

Studies have revealed that academic achievement is directly related to the home, the school, and the community (Bempechat and Ginsburg, 1989). A strong triangular relationship must exist between the student's

home, the student's school and the student's community in successful

school districts. Many studies have stressed the need for further research

on the relationship between education and the community; such research

is ethnographic in nature (Wagner, 1989). Throughout the literature, the

development of Quality of Life Indices by economist have focused on the

evaluation of the community without enough regard to its education

system as a contribution (Blomquist, Berger, and Hoehn, 1988). The

literature continually recommended the need for the development of such

an index to determine a process for evaluating the added-value

dimensions of education.

Methodology

This project was a Delphi research study. The Delphi research

technique was used to establish the variables for consideration in the

Quality of Life-Value-Added Indices. The Delphi technique refers to a

series of related procedures for eliciting and refining the opinions of a

group of people. Named for the Oracle at Delphi, in ancient Greece, the

Delphi technique was developed in the 1950's by the Rand Corporation

as an intuitive methodology for organizing and shaping forecasts. The

Delphi technique is an excellent systematic, iterative procedure for

forecasting based on independent opinions gathered by a consensus to obtain group judgments of selected experts (Rieger, 1986).

The Delphi procedure utilizes a sequence of sorting procedures to determine a priority ranking of a list of variables. Participants on a Blue Ribbon Panel of experts were chosen from teachers, principals, parents, professors, students, and administrators throughout the state of Mississippi. The panel was presented a list of statements believed to be relevant to school evaluation. Each of the participants were asked to rank the variables according to its importance to school success.

Through an extensive search through the literature, interviews, and advice from the Quality of Life-Value-Added Research Committee, a tentative list of 100 variables were identified that contribute as value-added characteristics of education and the quality of life in a community. A factor analysis was run on the tentative list of 100 variables to determined which variables were similar and should be eliminated from the list. The first list of 60 variables to be included on the first questionnaire were sent to the Blue Ribbon Panel for consideration in this Delphi study. The questionnaire asked the participants to select the five most important characteristics, the ten next to the most important, the five least important, ten next to least important, and the remainder of the

variables were considered moderate in the value they added to the educational system.

After the initial ranked questionnaire was returned, a second list of variables were determined from the statistical procedures. Frequencies and mean scores revealed the statement rankings and determined the second list of variables to be ranked. The second list of variables contained 19 variables determined from the previous responses. The most important variables to the least were selected by the committee. These 19 variables would be reordered and sent to the committee to be ranked one to 19. After receiving the Blue Ribbon Committee responses on the second round, a third questionnaire with 14 variables was created.

The third round of the Delphi study contained 14 variables for the Blue Ribbon Committee members to rank from the most important to the least important by the value they added to an educational system. The Blue Ribbon Committee ranked the variables one to 14. Statistical analysis revealed 13 variables for the final Quality of Life - Value-Added Index. The final list of variables in order of importance ranked by the Blue Ribbon Committee follows.

Quality of Life - Value-Added Index

1. Safe and Orderly Environment

2. Parental Involvement at Different Levels (elementary, middle, junior, high school, and K-12)

3. Teacher to Pupil Ratio

4. Per Student Expenditure on Instruction Only

5. Daily hours of Content Instruction

6. "Give a Rip" Teachers over Total Number of Teachers

7. Direct Dollars Spent on Teacher Staff Development and Educational Enhancement

8. Percentage of Ninth-graders Who Graduate From High School

9. Attendance as Percent of Enrollment

10. Teacher Education Level (highest degree held)

11. Number of Parents Who Come to School Conferences Over Number of Parents Within the School

12. Average School ACT/College Board Exams

13. Percent of Students Who Enter 4 Year Colleges or Universities

Conclusions and Recommendations

The next step should be to develop the necessary metrics and to test the Quality of Life-Value-Added Index in selected Mississippi

communities. After refinement and improvements are implemented, the

Quality of Life-Value-Added Index can be used to evaluate school

districts. This provides a process for evaluating school districts by

assessing characteristics that measure relevance of school and its

relationship to their community. School districts will be judged by the

value of their contribution to the communities. This Quality of

Life-Value-Added Index will provide data to school systems for reporting

value-added characteristics, identification of areas of improvement, and

developing school guidelines for application of the index to the school

district. This index can be used as a supplement to the America Goals

2000 Community Report Card.

REFERENCES

Blomquist, G. C., Berger, M. C., & Hoehn, J. P. (1988). New estimates of quality of life in urban areas. The American Economic Review, 23, 89-107.

Bempechat, J., & Ginsburg, H. P. (1989). Underachievement and educational disadvantage: The home and school experience of at-risk youth. New York, NY. (ERIC Reproduction Service No. ED#315485)

Brown, R. B. (1990). How do communities act? Little Rock, AR. (ERIC Reproduction Service No. ED#325291)

Doyle, D. P. (1992). American education: The challenge, the opportunity. Phi Delta Kappan, 73(7), 512-520.

Guthrie, J. W. (1993). America's schools need a dow jones index? Phi Delta Kappan, 74(7), 523-528.

Hendrikson, L. (1985). Community study. Boulder, CO. (ERIC Reproduction Service No. ED#268065)

National goals for education. (1990). Washington, DC: Executive Office of the President. (ERIC Document Reproduction Service No. ED#319143)

Naylor, M. (1988). Trends and directions in career education.

Columbus, OH. (ERIC Document Reproduction Service No.

ED#299458)

Prince, J. D. (1989). Invisible forces: school reform versus school

culture. Bloomington, Indiana: Phi Delta Kappa.

Rieger, W. G. (1986). Directions in delphi developments: Dissertations

and their quality. Technological Forecasting and Social Change, 29,

195-204.

Swanson, B. B. (1991). The national education goals: Questions and

answers. Rockville, MD. (ERIC Document Reproduction No.

ED#023362)

Wagner, J. (1989). Ethnographic work and educational administration:

Reframing problematics of educational research and practice. (ERIC

Document Reproduction No. ED#312273)