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The Local Use of IGAP Science Test Scores in High School Program Evaluation

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The Local Use of IGAP Science Test Scores

in High School Program Evaluation
(TITLE)

BY

Garry Krutsinger

FIELD EXPERIENCE

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
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IN THE GRADUATE SCHOOL, EASTERN ILLINOIS UNIVERSITY
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Abstract

This study examined the use of various objective test data, including IGAP Science test scores, by school personnel in the process of local science program evaluation. Three hundred and twenty-four public Illinois High Schools, all Illinois high schools with enrollments of 500 or less, were surveyed. Principals were asked to identify objective test score data used in local science program evaluation, to characterize the nature of the local evaluation process, and to identify local personnel involved in the evaluation process. All respondents identified sources of objective test score data used in local science program evaluation. The IGAP Science test score data was reported to be used more often than any other single source of data. Building principals and teachers were most often identified as the personnel involved in the program evaluation process. The nature of the evaluation process varied greatly from school to school, but was most often characterized as an informal process.

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Chapter I

OVERVIEW OF THE PROBLEM

Background and Significance of the Problem

Worthen & Sanders (1987) indicate that the one key deficit in most educational systems is the lack of effective evaluation. While schools in Illinois are being evaluated as a result of reform legislation which began in 1985, program evaluation with regard to meeting the State Goals for Learning is a local responsibility.

Likely the greatest contributors to ineffective evaluation are (1) the lack of dependable information about performance of educational products, practices, and programs and (2) the absence of established systems for producing this information (Worthen & Sanders, 1987).

One component of school evaluation in Illinois is the Illinois Goal Assessment Program (IGAP), a series of state-wide tests designed to determine if students are meeting standards in fundamental learning areas. The IGAP tests are the result of 1985 reform legislation in Illinois. Prior to the passage of the reform legislation, the Illinois State Board of Education asked the Superintendent of Instruction to

develop and recommend "clearly stated, broadly defined, and relatively timeless standards of what students must know and be able to do as a consequence of their schooling" (Craig, 1992, p. 3). This action was in response to an examination of existing mandates by the Planning and Policy Committee of the Illinois State Board of Education, which determined existing mandates to be inconsistent, arbitrary, and lacking a statement of purpose. As a result of reformers and special interest groups over the years, old mandates had remained and new ones were added. Public hearings were held in 1982, and the results of the study were presented to the State Board of Education.

The 1985 reform legislation mandated the Illinois State Board of Education to identify and assess goals for learning in the six fundamental learning areas of Language Arts, Mathematics, Social Science, Biological and Physical Sciences, Health and Physical Development, and the Fine Arts. The Illinois Goal Assessment Program was designed to assess student learning as related to the goals for learning in each of the fundamental areas. Currently, IGAP testing is used in Writing, Reading, Mathematics, Social Sciences, and Biological and Physical Sciences. Health and Physical

Development are not currently part of the statewide assessment, but remain a part of the Illinois Goal Assessment Program (ISBE, 1993).

To make schools accountable, IGAP test scores at the building and district level are reported on the annual school report card, and beginning in 1993, individual student scores were reported to parents. IGAP results to schools and parents report scores for each of the State Goals for Learning in each fundamental learning area (see Appendix A). The IGAP testing is one of the three components of the Illinois School Accreditation Process. The other components of this process include local assessments and school compliance with regard to various mandates, including issues such as certification of staff and life safety.

Educators in Illinois have invested a great deal of time and effort into the school improvement process, especially in the development of local assessments and the alignment of curricula to the State Goals for Learning. It is the opinion of the researcher that program development in many schools has been replaced by the process of curriculum alignment and development of assessment systems since the implementation of the reform legislation.

As a result of the reform legislation, program evaluation must also be related to the State Goals for Learning. Program evaluation is critical because schools are expected to address areas of weakness that are identified by state or local assessments.

At the time the State Goals for Learning were established, standardized achievement tests results, used by local schools, were not specifically related to any state-wide goals for learning. So that schools can use these tests as one form of local assessment, many testing companies are currently modifying score reports so that the scores are relative to the State Goals for Learning. The IGAP tests were designed specifically to relate to the State Goals for Learning. Although IGAP test scores cannot be used as a form of local assessment, they can provide data to use in local program evaluation.

IGAP testing is a system for providing relevant data to use in program evaluation and development and therefore is at least one component of effective evaluation. It is the opinion of the researcher that IGAP data, a potentially valuable tool for specific program improvement, may not be effectively utilized at the local level.

Statement of the Problem

This study investigated the use of various objective test data, including IGAP test scores, by schools in the local process of science program evaluation and development. The study provides a potential resource for principals and faculty as they continue the task of school improvement.

Research Questions

To determine the degree that IGAP test score data are utilized in local science program development and evaluation, this study was designed to find the answers to the following research questions:

1. To what extent are data from various objective tests used in development and evaluation of local science programs?
2. Which local personnel are provided copies of IGAP Science results?
3. To what extent are formal processes used for program evaluation at the local level?
4. What personnel are involved in program evaluation?
5. How familiar are school principals with the makeup of the IGAP Science test?
6. What are the perceptions of school principals

regarding the Illinois Goal Assessment Program?

Assumptions

Since IGAP testing is required and results are sent to all Illinois districts, it was assumed that these data are available to all local schools.

Limitations

This study may have been influenced by the fact that it was conducted during March of 1995, a period when many principals may have been busy with staff evaluations, state testing, and quality review activities.

Delimitations

The parameters of this study are as follows:

1. Only IGAP Science test scores were examined, although local schools also receive IGAP scores in Reading, Writing, Social Science, and Mathematics.
2. The study was designed to examine the local use of IGAP data, but not to determine the merit of the Illinois Goal Assessment Program as a whole.
3. All Illinois public high schools with enrollments of 500 or less were surveyed.

Operational Definitions

1. ACT Science Reasoning: The science assessment portion of the American College Testing Program (ACT)

test for students planning continued education beyond high school.

2. IGAP: The Illinois Goal Assessment Program which includes state-wide tests given to students at targeted grade levels in the fields of Reading, Writing, Science, Mathematics, and Social Studies.

3. ISBE: The Illinois State Board of Education, the agency responsible for development and administration of the IGAP tests.

4. ITBS: The Iowa Test of Basic Skills, an achievement test used at many Illinois schools.

5. Stanford: The Stanford Achievement Test.

6. Local assessments: Methods developed at the building level, specifically objective tests, that are designed to determine student progress toward the state goals for learning.

7. Formal process: A local plan which includes specifically identified personnel, methods, and timetables or schedules used in program evaluation.

Chapter II

REVIEW OF RELATED LITERATURE AND RESEARCH

Assessment from a National Perspective

Mandated testing existed long before the flurry of reform legislation of the 1980s. The Oregon Territory certified teachers on the basis of written tests in 1849, and the New York Regents' Examination tested student achievement in 1865. During the period from 1966 to 1976, 35 states passed accountability statutes including some form of testing or assessment (Marks, 1990).

In 1981, U. S. Secretary of Education T. H. Bell created the National Commission on Excellence in Education. The commission reported on the state of education in the United States in A Nation At Risk: The Imperative for Educational Reform in 1983.

Significant problems identified in this study were that among 17 year old students:

1. Many did not possess higher order intellectual skills.
2. Forty percent could not draw inferences from printed material.
3. Only twenty percent could write a persuasive essay.

4. Only one-third could solve a mathematics problem with several steps.

The report also emphasized that students leaving high school unprepared had significant impact. Business and industry were investing in costly remedial education for new employees, and the Department of the Navy reported that one-fourth of all recruits could not read at the 9th grade level, the minimum for understanding written safety instructions.

A Nation At Risk reported that the average citizen of the United States was better educated than a generation before, but that the average graduate was not (U. S. Department of Education, 1983).

In the years following the publication of A Nation At Risk, educational reform at the state level increased dramatically. By 1988, 45 states and the District of Columbia had legislated school accountability utilizing testing. These tests were often criterion referenced tests with pre-set standards (Marks, 1990).

The debate over state mandated testing among educators may be a factor in the local use of test score data. During the 1960s and 1970s, tests were components of instruction and program evaluation, but

most efforts related to accountability focused on developing detailed plans for the activities that administrators and teachers should undertake instead of the evaluation of the school (Salganik, 1985).

During the 1980s, the level of uncertainty about the quality of education increased among the public and the recognition that test results could tell parents how good schools were became apparent. The political correctness of using test results became the basis of accountability. The movement relating mandated testing and school accountability grew as a result of the need of policy makers to improve instruction while they recognized that true reform of the entire education process was difficult. Testing was the solution because it is relatively inexpensive, readily available, and administratively simple (Madaus, 1985).

The use of testing was supported by The 16th Annual Gallup Poll of the Public's Attitude Toward the Public Schools. In the poll, public confidence in schools increased from 36% to 42% giving their schools grades of A or B between the years of 1981 and 1984. In this same poll, public support for increasing taxes increased from 30% to 41% during the same period. These results indicated public confidence increasing as

a result of the great deal of school reform legislation approved during that period. The poll also indicated public support for local control over the curriculum even though support was apparent for mandated testing of students to receive a high school diploma (Gallup, 1984).

A study by Bauer addressed the perceptions of teachers regarding mandated testing in New York State. Program Evaluation Tests (PET) began in New York in 1987-88. Statistical profiles of New York schools, including student populations, were prepared as a report to the state legislature in 1991 (New York Education Department, 1991). The very existence of the reports to the legislature indicated the evaluation of New York schools using PET test score data. The Bauer study essentially documented negative feelings of teachers to state mandated testing because the presence of the tests encouraged teaching to the tests and the narrowing of the curriculum to cover areas assessed in the tests (Bauer, 1990).

Gipps indicates a primary purpose of initiating a mandated testing program is political by comparing schools to one another and comparing student scores to norms. This role for testing is in contrast to the

professional or private use of data from non-mandated tests to help meet the needs of individual students. The purpose of mandated testing is to link tests with the curriculum, set benchmarks and targets, and to use testing to set and maintain standards (Gipps, 1988).

Bracey opposed additional school reform based on comparisons of SAT (Scholastic Aptitude Test) scores. Concern about the decline of SAT scores has been a factor in school reform. Bracey contends that 10,654 students took the SAT in 1941 while 1,025,523 students took the SAT in 1990 and that the demographics of the student population can account for the differences. In 1990, 18% of the students taking the SAT reported high school grades of C or less, 52% were women, 17% reported family incomes of \$20,000 or less, and 27% were minority students. In 1941, the population was mostly Caucasian males living in the northeastern United States (Bracey, 1992).

Even after all the reform efforts, the public still has a relatively negative view of public officials and their efforts to improve education. The 24th Annual Gallup/Phi Delta Kappa Poll of the Public's Attitudes Toward the Public Schools indicates that 40-52% of the public gave public officials including the

President of the United States, the United States Congress, state governors, and state legislators grades of D or F for their efforts to improve public schools. The same poll indicated that only 23-28% of the public were aware of the National Goals for Education (Gallup, 1992). From these data, it is apparent that reforms or modifications of the existing reforms will continue in the political arena.

Assessment in Illinois

School reform in Illinois has been a continuing process since 1985, when initial reform legislation was approved. In the Mission Statement of World-Class Education for the 21st Century: The Challenge and the Vision, the State Board of Education stated that the current educational system was not meeting the needs of the people and indicated that the State Board of Education would provide leadership and prepare Illinois Goals for Education (see Appendix B). The State Goals for Learning in the six fundamental learning areas were established as an alternative to state required courses for all students. The Illinois Goal Assessment Program would have the responsibility of state-wide assessment of how students are meeting the State Goals for Learning.

While this project addresses only the Science portion of the IGAP assessment, student IGAP scores are provided to districts in the areas of Reading, Writing, Social Studies, and Mathematics. In addition, Illinois has attempted to address some of the criticisms of mandated testing by requiring that schools eventually utilize two local assessments, one of which is to be an alternative to a paper and pencil test. From this, the magnitude of the project of school reform in Illinois is apparent.

Illinois Science Assessment

In the area of Biological and Physical Sciences, the State Board of Education established the following State Goals for Learning:

As a result of their schooling, students will have a working knowledge of:

(Goal 1) The concepts and basic vocabulary of biological, physical, and environmental sciences and their application to life and work in contemporary technical society.

(Goal 2) The social and environmental implications and limitations of technical development.

(Goal 3) The principles of scientific research and their application in simple research projects.

(Goal 4) The processes, techniques, methods, equipment, and available technology of science.

These goals mirror the four recommendations for science education curricula presented in A Nation At Risk:

1. Concepts, laws, and processes of physical and biological sciences,
2. Methods of scientific inquiry and reasoning,
3. Application of science to everyday life, and
4. The social and environmental implications of scientific and technological development (U. S. Department of Education, 1983).

IGAP Science assessment began in April of 1992 at Grades 3, 6, 8, and 11. In 1993, the science assessment was changed to Grades 4, 7, and 11. Besides the IGAP, local districts are to assess science locally at one grade level during high school (ISBE, 1993).

The purpose of the IGAP science tests are to measure student knowledge related to the State Goals for Learning, to provide descriptions of how students, schools, and districts are performing, and to generate information on science outcomes that can be used for accountability, policy-making, and school improvement (ISBE, 1993).

The science test for Grade 11 is an 80 minute, 64 item test. For each of the four goals for learning in science, 16 items contribute equally to the total IGAP scale score of 500. The statewide mean for IGAP science tests was established at 250 with a standard deviation of 100. As assessments occur over the years, the state, district, and school scores may shift in response to student performance (ISBE, 1993).

The ISBE distinguishes between performance literacy and performance skill in science. Current IGAP science tests measure only performance literacy, an indicator of what a student knows about performance, as compared to performance skills or what a student can do. The ISBE encourages performance skills be assessed at the local level (ISBE, 1993). Criteria used to select or delete items on the IGAP Science test include:

1. Content validity,
2. Importance,
3. Difficulty,
4. Classification according to a Productive Thinking Scale,
5. Power to discriminate among student abilities,
6. Freedom from bias, and

7. Subject-area discrimination (ISBE, 1993).

The Productive Thinking Scale is a hierarchical scale which defines levels of thinking in scientific knowledge. It is used to rate IGAP science items because the purpose of the IGAP science tests are not to measure the quantity of student memories, but the quality of their thinking. The tests aim to examine the ability to conceptually re-create, empirically test, logically conclude, and honestly report (ISBE, 1993).

The Productive Thinking Scale includes content knowledge at:

Level 1: Recall of conventions such as names or vocabulary.

Level 2: Reproduction of empirical factors or effects.

Level 3: Reproduction of empirical theories or causes.

Level 4: Production of one-step problem solving.

Level 5: Production of multi-step problem solving.

Level 6: Creation of new theory.

Process Methods included in the productive thinking scale include:

Level 1: Recall of conventional uses such as names or units.

Level 2: Reproduction of research sequences or instruments.

Level 3: Reproduction of methodological reasons.

Level 4: Production of research designs for single-variable control.

Level 5: Production of research designs for multi-variable control.

Level 6: Creation of new methods.

Approximately 80% of IGAP science items rank between levels two and four on the Productive Thinking Scale. A few items rank at levels 1 and 5, and almost no items are from level 6 (ISBE, 1993).

School reform in Illinois has established what students should know as a result of their learning and has required local districts to establish outcomes related to the State Goals for Learning in each area. These outcomes are then related to the curriculum, local assessments are required, and the school is held accountable for student achievement.

In the development of the State Goals for Learning in Science, instruction has been guided away from memorization of facts and toward problem solving and

application of what has been learned. The IGAP science test has been devised to reflect this expected emphasis in instruction. The degree to which the local curriculum has been influenced by the state goals and the value of the IGAP science test can be debated, but the test is a measure of student progress that the state expects from students in science programs. It is reasonable to conclude that the IGAP science test can provide local districts with relevant data to use in evaluation of the science program at a school.

Chapter III

RESEARCH DESIGN AND METHODOLOGY

Purpose

The purpose of the study was to investigate the use of various objective test data, including IGAP Science test scores, by school personnel in the process of local program evaluation.

Sample and Population

This study surveyed principals of all public high schools in Illinois with enrollments of 500 or less. Names, addresses, and enrollment information were obtained from the IHSA (Illinois High School Association) Member School Directory (Current As Of July 21, 1994). All public high schools in Illinois are identified in the directory, regardless of the membership status in the Illinois High School Association. A total of 324 high school principals were mailed surveys for this study (see Appendix C).

Procedures

The survey instrument used in this study was developed by the author (see Appendix D). In the instrument, principals had the opportunity to characterize the nature of local science program evaluation, to identify individuals at the school

involved in the evaluation process, and to identify various objective test score data used for program evaluation. Principals were also asked for their personal level of familiarity with the IGAP Science test, their perceptions of the IGAP testing program, and who received copies of the IGAP Science results at their school. They were provided an opportunity to make appropriate comments and request survey results.

A database including the principal's name (if available), and the school's name and address was prepared and used to print mailing labels and a cover letter describing the purpose of the study (see Appendix E). The cover letters, surveys, and a self-addressed stamped envelope were mailed on March 3, 1995.

Data Collection

A total of 238 surveys, representing 73% of the population surveyed, were returned for analysis by April 1, 1995. Because of the number of responses and project time limitations, a planned follow-up letter and survey were not used. All surveys returned were included in the analysis.

A simple data collection instrument was developed to record survey responses. From the data collection

instrument, responses were recorded and an analysis of the data was conducted. Analysis was based on the number of responses for each component of the research questions in the surveys.

An analysis of the data provided information for the research questions:

1. To what extent are data from various objective tests used in development and evaluation of local science programs?

2. Which local personnel are provided copies of IGAP Science results?

3. To what extent are formal processes used for program evaluation at the local level?

4. What personnel are involved in program evaluation?

5. How familiar are school principals with the makeup of the IGAP Science test?

6. What are the perceptions of school principals regarding the Illinois Goal Assessment Program?

Chapter IV

RESULTS OF THE STUDY

Responses to Survey Questions

Of the surveys mailed, 73% (238 of 324) were returned by April 1, 1995. All surveys returned were analyzed to provide data to answer the research questions posed by this study.

The first research question asked the extent to which scores from various objective tests were used in local science program evaluation and development. In the survey, principals simply checked tests listed on the survey instrument and had the opportunity to identify tests not listed.

Of the 238 principals who responded, 234 (98%) indicated that scores from more than one test were used. To get a more accurate sense of the sources of objective test score data used, further analysis was done to provide data from principals who reported that four sources of test score data are used for local program evaluation, for those respondents reporting that three sources of test score data are used, and those indicating that two sources of test score data are used.

Table 1 presents overall data indicating the use

of objective test score data in program evaluation.

Table 2 identifies multiple sources of objective test score data used in program evaluation identified by the respondents.

From the data collected from the survey, the impact of the Illinois Goal Assessment Program on local program evaluation is obvious. The IGAP Science scores are used by 95% of the all respondents when identifying sources of objective test score data used in program evaluation (see Table 1).

Table 1

Objective Test Score Data Used in Local Program

Development and Evaluation

<u>Test</u>	<u>Responses</u>	<u>Percentage</u>
ITBS (Iowa Test of Basic Skills)	61	26%
Stanford Achievement	77	32%
IGAP (Illinois Goal Assessment)	227	95%
ACT (American College Testing)	128	54%
Local Assessments	170	71%
CTBS (California Test of Basic Skills)	18	8%
STS (Scholastic Testing Service)	18	8%
Others	21	9%

Table 2

Respondents Identifying Multiple Sources of Objective
Test Score Data

<u>Number of Sources</u>	<u>Four</u>	<u>Three</u>	<u>Two</u>
	63	115	56
	26%	48%	24%
<u>Test</u>	<u>Responses</u>	<u>Responses</u>	<u>Responses</u>
ITBS	21 (33%)	31 (27%)	8 (14%)
Stanford	24 (38%)	39 (34%)	14 (25%)
IGAP	63 (100%)	111 (97%)	51 (91%)
ACT	62 (98%)	60 (52%)	6 (11%)
Local	60 (95%)	81 (70%)	50 (50%)
Others	23 (36%)	23 (20%)	10 (18%)

When multiple sources of test score data were reported (see Table 2), the survey results indicated

that 63 respondents (26%) identified four sources of data. Three sources were identified by 115 respondents (48%), and two sources were named by 56 respondents (24%).

Only four of the 238 respondents indicated that only one source of objective test score data was used in local program evaluation. Of those, two indicated that IGAP data were used, one indicated the ITBS data (Iowa Test of Basic Skills) were used, and one indicated that only local assessment data were used.

The second research question asked which local personnel are provided copies of IGAP Science results. The principal (95%), the science teachers (88%), and the counselor (84%) were the persons named most often. The counselor is normally heavily involved with testing at a school, and is often IGAP Coordinator at schools of the size surveyed. Since the study was limited to schools with enrollments of 500 or less, which often do not have department heads, only 30% of the respondents indicated that department heads received copies of the IGAP Science results. All personnel, school board members, and members of the community that the survey indicated were provided copies of IGAP Science test scores are listed in Table 3.

Table 3

Personnel Provided Copies of IGAP Science Results

<u>Personnel</u>	<u>Responses</u>	<u>Percentage</u>
Principal	226	95%
Counselor	201	84%
Department Head	72	30%
Science Teachers	209	88%
Superintendent	16	7%
School Board	15	6%
All Staff	14	6%
Parents/Community	12	5%
Curriculum Committee	5	2%
Curriculum Coordinator	4	2%
Others	14	6%

The third research question provided the opportunity for high school principals to characterize the formality of the local program evaluation process. The survey instrument also gave the respondents the opportunity to characterize the process as involving informal consultation between the teachers and the building principal.

Of the respondents, 50% indicated that specific

individuals serve on committees utilized for program evaluation at their schools, 34% reported that a program evaluation timetable or schedule is used, and 29% indicated that specific criteria is used in the program evaluation process. Principals responding to the survey indicated that objective test score data are utilized for program evaluation by 57% of their schools.

Of the respondents, 73% chose to characterize the program evaluation process as involving informal consultations between the principal and the teacher. Complete data from returned surveys regarding program evaluation processes are presented in Table 4.

Table 4

Program Evaluation Processes at the Local Level

<u>Characteristic</u>	<u>Responses</u>	<u>Percentage</u>
Specific Individuals Serve on Committee	119	50%
Schedule or Timetable in Place	81	34%
Specific Criteria Are Used to Evaluate	68	29%
Objective Test Score Data is Used	135	57%
Informal Consultation Teacher/Principal	174	73%

The indication that only 57% used objective test score data is an apparent contradiction with the responses to Research Question 1, which asked the extent to which objective test score data were utilized in local program evaluation. When asked to identify sources of objective test score data used in program evaluation, all respondents identified sources.

Table 5

Local Personnel Involved in Science Program Evaluation

<u>Personnel</u>	<u>Responses</u>	<u>Percentage</u>
Principal	220	92%
Department Head	73	31%
Counselor	76	32%
Teachers	213	89%
Superintendent	15	6%
School Board	7	3%
Parents	7	3%
Curriculum Committee	4	2%
Curriculum Coordinator	3	1%
Others	8	3%

Research Question 4 asked respondents to identify local personnel involved in science program evaluation.

Of the respondents, 92% named the building principal and 89% named teachers as those most often involved in program evaluation. Department heads, not always present at schools surveyed, were identified by 31% of the respondents and the counselor was identified by 32% of the respondents.

Table 6

Level of Familiarity of Building Principals With the IGAP Science Test

	Responses	Percentage
Very Familiar	67	28%
Somewhat Familiar	140	59%
Unfamiliar	25	11%

To answer Research Question 6, the survey asked building principals to identify their personal level of familiarity with the IGAP Science test in terms of the levels of learning the test was designed to measure. It should be noted that six respondents did not answer this question. Of the 232 (98%) who did answer the question, 28% of the total indicated that they were very familiar with the test, 59% indicated that they were somewhat familiar with the test, and 11% indicated

unfamiliarity with the test.

Principals Perceptions of the Illinois Goal Assessment Program

	Responses	Percentage
Positive	132	55%
Negative	57	24%
No Opinion	45	19%

Research Question 7 asked for the perceptions of principals of the Illinois Goal Assessment Program. While the intent of the study was not to determine the merit of the Illinois Goal Assessment Program, the perceptions of principals was considered relevant because the data provided might be used locally.

Of the respondents, 55% indicated a generally favorable view of the program, 24% viewed it negatively, and 19% had no opinion.

Principals were given the opportunity to receive copies of the survey results. Of the 238 respondents, 139, representing 58% of the total, indicated that they wished to receive a copy of the survey results.

Comments

A section of the survey was provided for comments

by the respondents. All principals were promised anonymity, but many of the comments were relevant to the study.

"Why can't these tests be used for Quality Review Assessments?"

"As long as students see no benefit to the test, they will continue to do less than their best..."

"Less testing time would make more time available for teaching."

"Should be used in the local school improvement plan."

"IGAP testing and School Improvement is a waste of time because we do not have the time or personnel to do it properly."

"Individual scores are extremely helpful in the program evaluation phase."

"I believe the IGAP could be revamped to access what SIP local assessment tools are to do with less hassle to teachers."

"The Illinois Goal Assessment Program could use some revision and redirection in some areas, but the framework is sound."

"The IGAP test should be geared toward a pre-determined set of outcomes so that schools could adopt

all or a portion of these outcomes and use the IGAP as an assessment for the School Improvement Plan."

"I have no objection to the goals. Schools should be held accountable. My objection is the huge amount of paperwork that accompanies the process. This should be eliminated, or schools will become paper mills instead of places for learning. The amount of time teachers are out of class is overwhelming and counter-productive."

"The intent of IGAP is positive, but the lack of direction, the time involved in the paperwork and assessments is tremendous. In a small school, there is not the personnel or time to commit to this process without taking away from student learning."

"IGAP measures nothing more than we already get with ACT, Stanford, or ITBS."

"I've never been able to follow the rationale of why we're mandated by the state to do the IGAP, but we cannot use the IGAP results as part of our documentation (testing) process for the state's process of accreditation."

"Another state mandate - Karl Marx? or local input?"

The comments were representative of principals who

had both positive and negative views of the Illinois Goal Assessment Program. Many of the comments related to the fact that the IGAP test scores cannot be used as a part of the local assessment. Illinois requires two local assessments for school accreditation. The IGAP test scores are a part of the accreditation process, but are not permitted to be used in place of a local assessment.

Chapter V

SUMMARY, FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

Summary

This study examined the use of objective test score data, especially the IGAP (Illinois Goal Assessment Program) Science Test, in local science program evaluation in Illinois public high schools with enrollments of 500 or less. Research questions were developed and related literature and research were reviewed. A population of 324 Illinois high school principals, from all Illinois public high schools with enrollments of 500 or less, was identified. A survey instrument was prepared, and the data from the 238 returned surveys, representing 73% of the population, were analyzed. Answers to the research questions were prepared from the analysis of the survey data.

Findings

To answer Research Question 1, the survey instrument asked high school principals to identify the sources of objective test score data used in local science program evaluation. A checklist was provided in the survey instrument to identify specific tests and respondents were given the opportunity to name tests not listed. All respondents (100%) indicated that

objective test score data are used.

Overall, 95% of the respondents reported that IGAP science results are used in program evaluation. Since the State of Illinois now requires local assessments, 71% of the respondents indicated that the results from these assessments are used in program evaluation. The ACT (American College Testing) Science Reasoning test scores are used by 54% of all respondents. Other forms of standardized achievement test scores, including the ITBS (Iowa Test of Basic Skills), the Stanford Achievement, the CTBS (California Test of Basic Skills), the Metropolitan Achievement Test, and STS (Scholastic Testing Service), were identified by the respondents.

From the survey results regarding the use of test score data, it became apparent that school personnel use multiple sources of objective test score information in local program evaluation. The survey data were analyzed further to determine the sources of test score data when principals reported that four sources of data are used in program evaluation, that three sources of test score data are used, and that two sources of objective test score data are used.

When four sources of test score data are reported,

the IGAP Science test scores are used at every school (100%), The ACT Science Reasoning test scores are used at 98% of the schools, and local assessments are used at 95% of the schools. The remainder of the respondents reported the use of scores from various achievement test scores previously identified.

When three sources of test score data are used, the most commonly used test scores reported were the IGAP science scores (97%). Local assessments are used at 71% of the schools, and the ACT Science Reasoning test is used in 52% of the schools. The remainder of the respondents reported the use of scores from various achievement tests.

When only two sources of test score data were reported, the IGAP science scores were used by 91% of the schools. Local assessment scores are used by 50% of the schools in program evaluation. The remainder of the respondents identified various achievement test score data and the ACT Science Reasoning test scores.

Only four respondents reported that only one form of objective test score data was used in local program evaluation. Of those, two reported the use of the IGAP science test scores, one identified local assessments, and one reported the use of an achievement test.

From the survey data, it is clear that the Illinois Goal Assessment Program has greatly impacted the process of local program evaluation. Since the IGAP tests are required of all students at specific grade levels and they are designed to relate to the State Goals for Learning in Science, they are being used at the local level for program evaluation. When data from multiple forms of assessment are used, the IGAP Science scores are nearly always used. Local assessments, also required by the state, play a major role in local program evaluation. Standardized achievement tests, in use long before the development of the IGAP or local assessments, still are used locally. It should be noted that the ACT Science Reasoning test is given to juniors who plan to attend college and not to all students. The ACT Science Reasoning scores are used, but the use of these data decreases as schools use fewer sources of objective test score data.

To answer Research Question 2, principals were asked what local personnel are provided copies of the IGAP Science test scores. The respondents identified principals (95%), counselors (84%) and science teachers (88%) as being the persons most often provided copies

of the test score data. To a much lesser degree, superintendents, school boards, parents, and other staff members were named. Since the study was limited to high schools with enrollments of 500 or less, department heads were named by only 30% of the respondents. Many schools in this size range do not have department heads. The role of the counselor as testing director, and often IGAP Coordinator, explains why the counselor is provided these data.

To answer Research Question 3, principals were asked to characterize the science program evaluation process at their schools. The intent was to identify specific components associated with formal evaluation procedures. A checklist on the survey instrument was used by respondents to identify components of formal evaluation used at their schools. The principal also could characterize the local program evaluation process as being an informal process involving consultation between the building principal and teachers involved.

Of the respondents, 50% indicated that specific individuals are named to committees for program evaluation. A specific timetable or schedule for program evaluation was in place at 34% of the schools, and 29% of the respondents reported that specific

criteria were used in the evaluation process.

An apparent contradiction to the answer the survey provided to Research Question 1 surfaced when only 57% indicated that objective test score data were used in local program evaluation. In responses related to Research Question 1, 100% of the respondents reported that some form of objective test data is used in program evaluation. The survey instrument did not specifically ask how the objective test score data are used. A plausible explanation is that since data are available, it is considered, but it may not be a major factor in program evaluation at small schools, where results vary more in small groups of students tested.

The program evaluation process was characterized as an informal process involving consultation between the principal and the teacher in 73% of the respondents.

This contradiction may have been the result of the wording of the survey instrument, but it is apparent that the program evaluation process is viewed by the principals in the sample as an informal process. Even when components of a formal process were present, the respondents often indicated that informal consultations between teachers and the principals were a part of the

evaluation process.

To answer Research Question 4, respondents were asked to identify local personnel involved in science program development and evaluation. Principals (92%) and teachers (89%) were most often named. The counselor, who was provided copies of results at 84% of the schools, was involved in science program evaluation by only 32% of the schools. Department heads, provided copies 30% of the time, were involved in program evaluation 31% of the time. It is likely that approximately 30% of the schools in the sample had department heads.

An interesting fact determined by the analysis of survey data was that curriculum committees were rarely identified as being a part of local program evaluation and apparently exist in only 50% of the schools. There was little involvement by parents and students reported by survey data. An essential component of the Illinois School Accreditation Process is reporting to the public and encouraging community involvement. The study indicates that many schools have not effectively involved the public in the program evaluation process. A possible explanation for this is because many schools, to date, have concentrated on school

improvement activities, such as the development of outcomes and local assessments, which heavily involve school personnel. It is possible that the involvement of the parents and community will increase as schools complete the school improvement activities required by the state.

Principals were asked to indicate their personal level of familiarity with the IGAP Science test in order to answer Research Question 6. Of the respondents, 28% indicated they were very familiar with the test, 59% indicated they were somewhat familiar with the test, and 11% reported they were unfamiliar with the test.

The principals' perceptions of the Illinois Goal Assessment Program were asked to answer Research Question 7. A common criticism of the reform legislation and resulting school improvement activities is that there is simply too much testing. Initially, the mandated tests required by the Illinois Goal Assessment Program were unpopular with educators. In this study, 55% of the respondents reported a generally favorable perception of the Illinois Goal Assessment Program, 24% viewed it negatively, and 19% had no opinion.

From these data, it is apparent that the Illinois Goal Assessment Program is impacting program evaluation in Illinois high schools. While many respondents indicated their personal concerns about the amount of testing and the fact that two forms of local assessments had to be done in addition to the IGAP tests, the IGAP tests and their results are being used at the local level. The principal's level of familiarity with the makeup of the IGAP Science test and the principal's perceptions of the Illinois Goal Assessment Program, whether positive or negative, had little to do with the use of the IGAP test score data in local program evaluation.

The IGAP Science test does provide dependable information about the performance of an educational program. From this study, it is unclear if established evaluation systems for using this information in program evaluation is present at Illinois schools in the sample.

Recommendations

Further research may examine the specific program evaluation and development procedures at high schools and provide more accurate documentation of the processes than this study provided. This study was

limited to small schools, but is possible that formal procedures are better defined in larger schools, with more personnel assigned administrative duties.

In February of 1995, the Illinois State Board of Education commissioned the Educational Testing Service to conduct an evaluation of the Illinois Goal Assessment Program to determine its effectiveness and make suggestions for program improvements (see Appendix F). A part of this survey addressed how IGAP information is used by Illinois schools. A review of the results of this survey, when it is completed, may be of interest to anyone reading this study.

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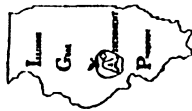
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SCHOOL REPORT

ILLINOIS
GOAL ASSESSMENT PROGRAM
SCIENCE GRADE 11 1993-1994

School:	003 0010 0001
District:	
Total Number of Grade 11 Students:	28
Number of Students Represented in the Score Report:	26
Number of Students Not Represented in the Score Report:	2
TBE:	0 IEP: 2 Unscorable: 0 Other: 0

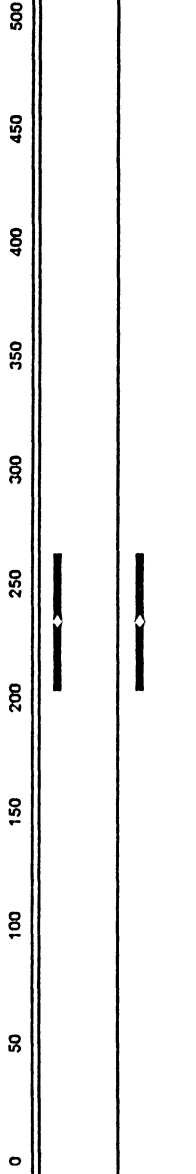
In accordance with Public Act 84-126, as amended by Public Act 87-934 (HB 1890), the Science Assessment was administered to every eligible public school student in grades 4, 7, and 11 in Illinois during March, 1994. IGAP measures students' knowledge of the concepts and basic vocabulary of science; the social and environmental implications and limitations of technology; the principles of scientific research; and the processes, techniques, methods, and equipment of science. The scores presented in Section 1 represent a composite of students' performance across all these goals. Section 2 provides a breakdown of students' performance within each of the individual goals. These scores measure students' science and performance literacy. They do not measure students' performance skills.

1. OVERALL SCIENCE SCALE SCORES

The scores below reflect student performance across all science goals. The Overall Science Scale Score is a standard score that ranges from 0 to 500 with an average of 256 for all grade 11 students who took IGAP in 1994.

YEAR	AVERAGE SCALE SCORE	COMPARISON SCORE BAND *
SCHOOL	236	210-262
1993	230	206-254
1992	243	215-271
DISTRICT	236	210-262
1993	230	206-254
1992	243	215-271
ILLINOIS	256	
1993	257	
1992	250	

SCALE SCORES ARE SHOWN AS DIAMONDS (◊) AND COMPARISON SCORE BANDS AS LINES (—).
THE GRAPHING IS APPROXIMATE WITHIN 6 SCALE SCORE POINTS.



* ± 2 standard errors. The standard error for your school is 13 scale score points.

Your school's average scale score (236) is shown as a point within the comparison score band of 210-262. Scores within this comparison score band are not statistically significantly different. Use the comparison score band to compare your school's or district's scores with scores for the state and to compare scores from one year to the next. In general, the larger the number of students on which a score is based, the smaller the comparison score band. For this reason, the comparison score band for the state is very close to zero and is not shown here.

District	Grade: 11 SCIENCE
School:	

PREDICTED NATIONAL NORM DISTRIBUTIONS

The following table compares your students' score distribution with national norms. The reported values are based on data from students who took both IGAP and a nationally normed science test. This study was conducted in 1992. Results are reported in terms of four categories. Each category includes one quarter (25%) of the total score distribution for the United States.

PERCENTAGES OF STUDENTS ESTIMATED TO FALL IN EACH QUARTER OF THE NATIONAL DISTRIBUTION ON SCIENCE ACHIEVEMENT

Quarter	NATION	STATE		DISTRICT		SCHOOL				
		1994	1993	1992	1994	1993	1992			
4 (76-99%)	25%	27%	28%	30%	19%	10%	9%	19%	10%	9%
3 (51-75%)	25%	27%	29%	26%	23%	38%	50%	23%	38%	50%
2 (26-50%)	25%	30%	28%	26%	46%	41%	32%	46%	41%	32%
1 (1-25%)	25%	15%	15%	18%	12%	10%	9%	12%	10%	9%

The nationally standardized test of science which was used to establish the U.S. comparison was most recently normed in 1988. DUE TO ROUNDING ERROR, THE TOTAL FOR ANY COLUMN MAY NOT EQUAL 100%

District: _____ School: _____ Grade: 11 SCIENCE

Performance Standards

During the 1992-1993 school year, the Illinois State Board of Education established performance standards for the Illinois Goal Assessment Program in science. Three levels of student performance were defined. Level 1 includes students who do not meet state learning goals. Level 2 includes students who meet state learning goals. Level 3 includes students who exceed state learning goals.

The following table compares the performance of students in your school with that of students in your district and in the state as a whole.

PERCENTAGE OF STUDENTS WHO FALL IN EACH IGAP PERFORMANCE CATEGORY

	YEAR	PERCENTAGE OF STUDENTS WHO FALL IN EACH IGAP PERFORMANCE CATEGORY		
		DO NOT MEET STATE GOALS (LEVEL 1)	MEET STATE GOALS (LEVEL 2)	EXCEED STATE GOALS (LEVEL 3)
SCHOOL	1994	27%	62%	12%
	1993	31%	66%	3%
DISTRICT	1994	27%	62%	12%
	1993	31%	66%	3%
ILLINOIS	1994	25%	53%	22%
	1993	23%	54%	23%

DUE TO ROUNDING ERROR, THE TOTAL FOR ANY ROW MAY NOT EQUAL 100%

District: _____ School: _____ Grade: 11 SCIENCE

2. GOAL SCORES OF THE SCIENCE ASSESSMENT
 The Overall Science Scale Scores in Section 1 represent student performance across the state goals for learning in science. The following table presents results for each goal separately.
 The science goal scores are standard scores that may range from 0 to 500. The state mean was defined as 250 in 1992, the base year for the Science Assessment. State means may shift in subsequent years to reflect changes in student performance. The mean scores for your school and district and the comparison score bands for your school are displayed in the table.
 Goal scores reported below are based on subsets of test items that are separately scaled. Consequently, the average of the goal scores may not necessarily equal the scores reported on page one.

GOALS	AVERAGE SCALE SCORE			SCHOOL COMPARISON SCORE BAND*	SCALE SCORES FOR INDIVIDUAL GOALS ARE SHOWN AS DIAMONDS (◊) AND COMPARISON SCORE BANDS AS LINES (—). THE GRAPHING IS APPROXIMATE WITHIN 7 SCALE SCORE POINTS.										
	YEAR	STATE	DISTRICT		SCHOOL	0	50	100	150	200	250	300	350	400	450
GOAL 1: CONCEPTS AND VOCABULARY The concepts and basic vocabulary of biological, physical, and environmental sciences and their application to life and work in contemporary technological society.	1994	255	232	232	202-262	◊									
	1993	257	224	224	200-248	◊									
	1992	250	220	220	186-254	◊									
GOAL 2: IMPLICATIONS OF TECHNOLOGY The social and environmental implications and limitations of technological development.	1994	253	231	231	189-273	◊									
	1993	257	244	244	212-276	◊									
	1992	250	244	244	216-272	◊									
GOAL 3: PRINCIPLES OF RESEARCH The principles of scientific research and their application in simple research projects.	1994	262	247	247	213-281	◊									
	1993	260	237	237	213-261	◊									
	1992	250	257	257	219-295	◊									
GOAL 4: TECHNIQUES OF SCIENCE The processes, techniques, methods, equipment, and available technology of science.	1994	263	240	240	206-274	◊									
	1993	254	223	223	201-245	◊									
	1992	250	256	256	224-288	◊									

* ± 2 standard errors. The scale scores may vary across goals.

Appendix B

WORLD-CLASS EDUCATION FOR THE 21ST CENTURY: THE CHALLENGE AND THE VISION

VISION STATEMENT

As we approach the 21st century, there is broad-based agreement that the education we provide for our children will determine America's future role in the community of nations, the character of our society, and the quality of our individual lives. Thus, education has become the most important responsibility of our nation and our state, with an imperative for bold new directions and renewed commitments.

To meet the global challenges this responsibility presents, the State of Illinois will provide the leadership necessary to guarantee access to a system of high-quality public education. This system will develop in all students the knowledge, understanding, skills and attitudes that will enable all residents to lead productive and fulfilling lives in a complex and changing society. All students will be provided appropriate and adequate opportunities to learn to:

- communicate with words, numbers, visual images, symbols and sounds;
- think analytically and creatively, and be able to solve problems to meet personal, social and academic needs;
- develop physical and emotional well-being;
- contribute as citizens in local, state, national and global communities;
- work independently and cooperatively in groups;
- understand and appreciate the diversity of our world and the interdependence of its peoples;
- contribute to the economic well-being of society; and
- continue to learn throughout their lives.

MISSION STATEMENT

The State Board of Education believes that the current educational system is not meeting the needs of the people of Illinois. Substantial change is needed to fulfill this responsibility. The State Board of Education will provide the leadership necessary to begin this process of change by committing to the following goals.

ILLINOIS GOALS

1. Each Illinois public school student will exhibit mastery of the learner outcomes defined in the State Goals for Learning, demonstrate the ability to solve problems and perform tasks requiring higher-order thinking skills, and be prepared to succeed in our diverse society and the global work force.
2. All people of Illinois will be literate, lifelong learners who are knowledgeable about the rights and responsibilities of citizenship and able to contribute to the social and economic well-being of our diverse, global society.
3. All Illinois public school students will be served by an education delivery system which focuses on student outcomes; promotes maximum flexibility for shared decision making at the local level; and has an accountability process which includes rewards, interventions and assistance for schools.
4. All Illinois public school students will have access to schools and classrooms with highly qualified and effective professionals who ensure that students achieve high levels of learning.
5. All Illinois public school students will attend schools which effectively use technology as a resource to support student learning and improve operational efficiency.
6. All Illinois public school students will attend schools which actively develop the support, involvement and commitment of their community by the establishment of partnerships and/or linkages to ensure the success of all students.
7. Every Illinois public school student will attend a school that is supported by an adequate, equitable, stable and predictable system of finance.
8. Each child in Illinois will receive the support services necessary to enter the public school system ready to learn and progress successfully through school. The public school system will serve as a leader in collaborative efforts among private and public agencies so that comprehensive and coordinated health, human and social services reach children and their families.

Developed by citizens of Illinois through a process supported by the Governor, the Illinois State Board of Education and the Illinois Business Roundtable.

Adopted as a centerpiece for school improvement efforts.

Printed by the authority of the State of Illinois.

Appendix C

Abingdon High School (Abingdon)	Edwards Co. High School (Albion)
Aledo High School (Aledo)	Alexis High School (Alexis)
Altamont High School (Altamont)	Amboy High School (Amboy)
Annawan High School (Annawan)	Arcola High School (Arcola)
Argenta-Oreana H.S. (Argenta)	Armstrong High School (Armstrong)
A.C. Central High School (Ashland)	Arthur High School (Arthur)
Ashton High School (Ashton)	Astoria High School (Astoria)
Athens High School (Athens)	Atwood -Hammond H.S. (Atwood)
Auburn High School (Auburn)	Southeastern High School (Augusta)
Avon High School (Avon)	Barry High School (Barry)
Beardstown High School (Beardstown)	Beecher High School (Beecher)
Beecher City High School (Beecher City)	Bement High School (Bement)
Bethany High School (Bethany)	Union High School (Biggsville)
Bismarck-Henning H.S. (Bismarck)	Bluffs High School (Bluffs)
Webber High School (Bluford)	Bradford High School (Bradford)
Reed Custer High School (Braidwood)	Red Hill High School (Bridgeport)
Brimfield High School (Brimfield)	Heritage High School (Broadlands)
Brownstown High School (Brownstown)	Brussels High School (Brussels)
Western High School (Buda)	Tri-City High School (Buffalo)
Bunker Hill High School (Bunker Hill)	Bushnell-Prairie City H.S. (Bushnell)
Byron High School (Byron)	Cairo High School (Cairo)
Cambridge High School (Cambridge)	Central High School (Camp Point)
Trico High School (Campbell Hill)	Carlyle High School (Carlyle)
Carrier Mills-Stonefort H.S. (Carrier Mills)	Carrollton High School (Carrollton)
Carterville High School (Carterville)	Carthage High School (Carthage)
Casey-Westfield H.S. (Casey)	Catlin High School (Catlin)
Cerro Gordo High School (Cerro Gordo)	Chenoa High School (Chenoa)
Chester High School (Chester)	Agricultural Sciences H.S. (Chicago)
Cregier High School (Chicago)	Chrisman High School (Chrisman)
Christopher High School (Christopher)	Cisne High School (Cisne)

Cissna Park High School (Cissna Park)	Clay City High School (Clay city)
Central High School (Clifton)	Coal City High School (Coal City)
Cobden High School (Cobden)	Colchester High School (Colchester)
Columbia High School (Columbia)	Triopia High School (Concord)
Coulterville High School (Coulterville)	Cowden-Herrick H.S. (Cowden)
Crescent City-Iroquois H.S. (Crescent City)	Cuba High School (Cuba)
Tri-Point High School (Cullom)	Dakota High School (Dakota)
Dallas City High School (Dallas City)	Deland-Weldon H.S. (Deland)
Delavan High School (Delavan)	DePue High School (DePue)
Dieterich High School (Dieterich)	Divernon High School (Divernon)
Dongola High School (Donglola)	Donovan High School (Donovan)
Tri-Valley High School (Downs)	Dupo High School (Dupo)
Durand High School (Durand)	Dwight High School (Dwight)
Earlville High School (Earlville)	East Dubuque High School (East Dubuque)
Edinburg High School (Edinburg)	El Paso High School (El Paso)
Eldorado High School (Eldorado)	River Ridge High School (Elizabeth)
Hardin Co. High School (Elizabethtown)	Elverado High School (Elkville)
Elmwood High School (Elmwood)	Erie High School (Erie)
South Central High School (Farina)	Blue Ridge High School (Farmer City)
Findlay High School (Findlay)	Fisher High School (Fisher)
Oakwood High School (Fithian)	Flanagan High School (Flanagan)
Flora High School (Flora)	Forreston High School (Forreston)
Franklin High School (Franklin)	Franklin Center H.S. (Franklin Grove)
Fulton High School (Fulton)	Galatia High School (Galatia)
Galena High School (Galena)	Galva High School (Galva)
Gardner-S. Wilmington H.S. (Gardner)	Genoa-Kingston H.S. (Genoa)
Georgetown-Ridge Farm HS (Georgetown)	G.C.M.S. High School (Gibson City)
Gillespie High School (Gillespie)	Iroquois West High School (Gillman)
Girard High School (Girard)	Illini Bluffs High School (Glasford)
Pope County High School (Golconda)	Goreville High School (Goreville)

Grant Park High School (Grant Park)	Putnam County High School (Granville)
Grayville High School (Grayville)	Greenfield High School (Greenfield)
Greenview High School (Greenview)	Gridley High School (Gridley)
Griggsville High School (Griggsville)	Hamilton High School (Hamilton)
Hampshire High School (Hampshire)	Calhoun High School (Hardin)
Hartsburg-Emden H.S. (Hartsburg)	Havana High School (Havana)
Alden-Hebron High School (Hebron)	Henry-Senachwine H.S. (Henry)
Heyworth High School (Heyworth)	Hinckley-Big Rock H.S. (Hinckley)
Shiloh High School (Hume)	Huntley High School (Huntley)
Hutsonville High School (Hutsonville)	Illiopolis High School (Illiopolis)
Industry High School (Industry)	Johnson City High School (Johnson City)
Joppa-Maple Grove H.S. (Joppa)	Westmer High School (Joy)
Gallatin County High School (Junction)	Kansas High School (Kansas)
Wethersfield High School (Kewanee)	South Fork High School (Kincaid)
West Pike High School (Kinderhook)	Hiawatha High School (Kirkland)
Knoxville High School (Knoxville)	LaHarpe High School (LaHarpe)
LaMoille High School (LaMoille)	Eastland High School (Eastland)
Lawrenceville High School (Lawrenceville)	Lebanon High School (Lebanon)
Leland High School (Leland)	Lena-Winslow High School (Lena)
LeRoy High School (LeRoy)	Lexington High School (Lexington)
Liberty High School (Liberty)	Litchfield High School (Litchfield)
Livingston High School (Livingston)	Lovington High School (Lovington)
Deer Creek-Mackinaw H.S. (Mackinaw)	Meridian High School (Macon)
Madison High School (Madison)	Malta High School (Malta)
Midwest Central High School (Mantino)	Malinus High School (Malinus)
Manteno High School (Manteno)	Crab Orchard High School (Marion)
Marissa High School (Marissa)	Maroa-Forsyth High School (Maroa)
Marshall High School (Marshall)	Martinsville High School (Martinsville)
Illini Central High School (Mason City)	McLeansboro High School (McLeansboro)
Unity High School (Mendon)	Meredosia-Chambersburg H.S. (Meredosia)

Milford High School (Milford)	Milledgeville High School (Milledgeville)
Fieldcrest High School (Minonk)	Momence High School (Momence)
Warren High School (Monmouth)	Yorkwood High School (Monmouth)
Monticello High School (Monticello)	Morrison High School (Morrison)
Morrisonville High School (Morrisonville)	Meridian High School (Mounds)
Central A & M High School (Moweaqua)	Mt. Carroll High School (Mt. Carroll)
Mt. Olive High School (Mt. Olive)	Mt. Pulaski High School (Mt. Pulaski)
Brown County High School (Mt. Sterling)	Mulberry Grove High School (Mulberry Gro
Nauvoo-Colusa High School (Nauvoo)	Neoga High School (Neoga)
Neponset High School (Neoponset)	New Athens High School (New Athens)
New Berlin High School (New Berlin)	Newark High School (Newark)
Niantic-Harristown H.S. (Niantic)	West Richland High School (Noble)
Nokomis High School (Nokomis)	N.C.O.E. High School (Norris City)
Oakland High School (Oakland)	Oblong High School (Oblong)
Odin High School (Odin)	Ohio High School (Ohio)
Okawville High School (Okawville)	ROWVA High School (Oneida)
Orangeville High School (Orangeville)	Orion High School (Orion)
Palestine High School (Palestine)	Northwestern High School (Palmyra)
Pana High School (Pana)	Patoka High School (Patoka)
Paw Paw High School (Paw Paw)	Pawnee High School (Pawnee)
PBL High School (Paxton)	Seymour High School (Payson)
Pearl City High School (Pearl City)	Pecatonica High School (Pecatonica)
Peoria Heights High School (Peoria Heights)	Peotone High School (Peotone)
Perry High School (Perry)	Porta High School (Petersburg)
Pittsfield High School (Pittsfield)	Plano High School (Plano)
Pleasant Hill High School (Pleasant Hill)	Pleasant Plains High School (Pleasant Plains)
Polo High School (Polo)	North Boone High School (Poplar Grove)
Riverdale High School (Port Byron)	Princeville High School (Princeville)
Prophetstown High School (Prophetstown)	Ramsey High School (Ramsey)
Lincolnwood High School (Raymond)	Richmond-Burton H.S. (Richmond)

Riverton High School (Riverton)	Roanoke-Benson H.S. (Roanoke)
Rochester High School (Rochester)	Roseville High School (Roseville)
Rossville-Alvin High School (Rossville)	Rushville High School (Rushville)
Sandoval High School (Sandoval)	Savanna High School (Savanna)
Scales Mound High School (Scales Mound)	Northwestern High School (Sciotia)
Seneca High School (Seneca)	Serena High School (Serena)
Sesser-Valier High School (Sesser)	Indian Creek High School (Shabbona)
Shelbyville High School (Shelbyville)	Sheldon High School (Sheldon)
Jamaica High School (Sidell)	Somonauk High School (Somonauk)
South Beloit High School (South Beloit)	Sparland High School (Sparland)
Hall High School (Spring Valley)	St. Anne High School (St. Anne)
Ridgeview High School (Colfax)	St. Elmo High School (St. Elmo)
St. Joseph-Ogden H.S. (St. Joseph)	Staunton High School (Staunton)
Steeleville High School (Steeleville)	Stillman Valley High School (Stillman Valley)
Stockton High School (Stockton)	Stewardson-Strasburg H.S. (Strasburg)
Woodland High School (Streator)	Southern High School (Stronghurst)
Sullivan High School (Sullivan)	Egyptian High School (Tamms)
Tampico High School (Tampico)	Rockridge High School (Taylor Ridge)
Teutopolis High School (Teutopolis)	Thompsonville High School (Thompsonville)
Thomson High School (Thomson)	Tiskilwa High School (Tiskilwa)
Cumberland High School (Toledo)	Unity High School (Tolono)
Stark County High School (Toulon)	Tower Hill High School (Tower Hill)
Tremont High School (Tremont)	Trenton-Wesclin H.S. (Trenton)
Tuscola High School (Tuscola)	Century High School (Ullin)
Valmeyer High School (Waterloo)	Mid-County High School (Varna)
Vienna High School (Vienna)	Villa Grove High School (Villa Grove)
Virден High School (Virден)	Virginia High School (Virginia)
Walnut High School (Walnut)	Waltonville High School (Waltonville)
Warren High School (Warren)	Warrensburg-Latham H.S. (Warrensburg)
Warsaw High School (Warsaw)	Lowpoint-Washburn H.S. (Washburn)

Watseka High School (Watseka)	Waverly High School (Waverly)
Wayne City High School (Wayne City)	Westmont High School (Westmont)
Westville High School (Westville)	North Greene High School (White Hall)
Williamsfield High School (Williamsfield)	Williamsville High School (Williamsville)
Wilmington High School (Wilmington)	Winchester High School (Winchester)
Windsor High School (Windsor)	Winnegabo High School (Winnegabo)
Witt High School (Witt)	Shawnee High School (Wolf Lake)
Alwood High School (Woodhull)	Woodlawn High School (Woodlawn)
Wyanet High School (Wyanet)	Zeigler-Royalton H.S. (Zeigler)
Venice High School (Venice)	North Clay High School (Louisville)
Lewistown High School (Lewistown)	Spoon River Valley H.S. (London Mills)
Lovejoy High School (Lovejoy)	VIT High School (Table Grove)

Appendix D

SURVEY - LOCAL SCIENCE PROGRAM EVALUATION

Please respond with a check in the space to the left of each statement. Thank you for your time.

1. Please indicate which of the following statements are true of science program evaluation at your school.

- Specific individuals serve on a committee to evaluate the program.
- There is a schedule or timetable for program evaluation activities.
- Specific criteria are used for the evaluation.
- Objective test score data are used in the program evaluation process.
- Program evaluation is an informal process involving consultation between teachers and building administrators.

2. Please identify personnel involved in science program evaluation at your school.

- Principal
- Department Head
- Counselor
- Teachers
- Others - Please identify _____

3. Identify objective test data used by personnel at your school in the process of science program evaluation.

_____ ITBS (Iowa Test of Basic Skills) Science scores

_____ Stanford Achievement Science scores

_____ IGAP (Illinois Goal Assessment Program) Science scores

_____ ACT (American College Testing) Science Reasoning

_____ Local Assessments

_____ Other - Please identify _____

4. Identify personnel at your school who are provided copies of the IGAP Science test scores by the local IGAP Coordinator.

_____ Principal

_____ Counselor

_____ Department Head

_____ Science Teachers

_____ Other - Please identify _____

5. As a building administrator, describe your level of familiarity with the make-up (levels of learning) being measured by the IGAP Science assessment.

_____ Very familiar

_____ Somewhat familiar

_____ Unfamiliar

6. As a building administrator, describe your overall view of the Illinois Goal Assessment Program.

_____ Positive

_____ Negative

_____ No Opinion

7. Please indicate if you wish a copy of survey results.

_____ Yes

_____ No

8. Comments.

Appendix E

March 1, 1995

<Principal>
<School>
<Address>
<City, State, ZIP>

Dear <Principal>,

As a graduate student at Eastern Illinois University, I am currently preparing a field study regarding the use of standardized test data, especially IGAP Science scores, in local science program evaluation. The study will be limited to public high schools with an enrollment of five hundred or less throughout Illinois. The field study is under the supervision of Dr. Bev Findley of the Department of Educational Administration at Eastern.

I hope you will take a few minutes of your time to complete the survey and return it in the enclosed stamped envelope. All survey results will be confidential and no schools will be identified in the survey results or the field study document.

Please note on the survey that results will be mailed to you at your request. Thank you for your time.

Sincerely,

Garry Krutsinger, Principal
Mulberry Grove High School
Mulberry Grove, IL 62262

Appendix F

**ILLINOIS STATE BOARD OF EDUCATION**

100 North First Street • Springfield, Illinois 62777-0001

Michael W. Skarr
Chairperson

February 6, 1995

Joseph A. Spagnolo
State Superintendent

Dear Principal:

The Research and Evaluation office of the Illinois State Board of Education (ISBE) has commissioned Educational Testing Service to conduct an evaluation of the Illinois Goals Assessment Program (IGAP) to determine its effectiveness and to make recommendations for program improvements. ETS will use a variety of methods to conduct the evaluation, including the administration of a questionnaire to a statewide sample of Illinois school administrators, teachers, and parents. By taking approximately fifteen to twenty minutes to respond to the attached questionnaire, you will be making a significant contribution towards a complete, effective, and useful evaluation of the IGAP.

While we encourage your full participation and your support of this evaluation project, participation in all of the project activities is voluntary, and all data will be treated as confidential. You may elect to discontinue your participation at any time during the project without prejudice.

On the reverse side of this letter are instructions for responding to the questionnaire. Also enclosed are the following materials:

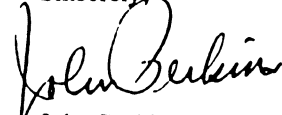
1. A questionnaire consisting of 69 questions relating to the IGAP.
2. A pre-addressed, postage-paid return envelope.

In addition to responding to the questionnaire, you are invited to include comments, suggestions, and other pertinent data as you see fit. Comments may be written in the space provided on the reverse side of this letter, or on additional pages. Please return your completed questionnaire and any comments in the enclosed business envelope.

We ask that you mail the completed questionnaire to ETS by February 22, 1995. All questionnaire responses will be reported only in the aggregate. Please rest assured that no individual school-level data will be reported.

We appreciate your assistance with this effort. If you have questions, comments, or suggestions regarding the evaluation of the IGAP, you may call the ETS Project Director, Richard Swartz, at 708-492-5103. Thank you for your cooperation.

Sincerely


John Perkins, Ed.D.
Manager of Evaluation

ILLINOIS GOALS ASSESSMENT PROGRAM (IGAP)
SCHOOL ADMINISTRATOR QUESTIONNAIRE

SECTION 1: HOW MEANINGFUL ARE IGAP SCORES?

For questions 1 to 18, please circle the response that indicates the degree to which you find IGAP scores meaningful for the grade levels and content areas listed. There are five response options:

- 4 = *Very Meaningful*
- 3 = *Meaningful*
- 2 = *Somewhat Meaningful*
- 1 = *Not At All Meaningful*
- 0 = *Don't Know*

Reading	VM	M	SM	NM	DK
1. Grade 3	4	3	2	1	0
2. Grade 6	4	3	2	1	0
3. Grade 8	4	3	2	1	0
4. Grade 10	4	3	2	1	0
Mathematics					
5. Grade 3	4	3	2	1	0
6. Grade 6	4	3	2	1	0
7. Grade 8	4	3	2	1	0
8. Grade 10	4	3	2	1	0
Writing					
9. Grade 3	4	3	2	1	0
10. Grade 6	4	3	2	1	0
11. Grade 8	4	3	2	1	0
12. Grade 10	4	3	2	1	0
Science					
13. Grade 4	4	3	2	1	0
14. Grade 7	4	3	2	1	0
15. Grade 11	4	3	2	1	0
Social Science					
16. Grade 4	4	3	2	1	0
17. Grade 7	4	3	2	1	0
18. Grade 11	4	3	2	1	0

SECTION 2: HOW DO YOU USE IGAP INFORMATION?

For questions 19 to 31, please circle the response that indicates the degree to which you find IGAP scores useful for the purposes indicated. There are five response options:

- 4 = *Very Useful*
- 3 = *Useful*
- 2 = *Somewhat Useful*
- 1 = *Not At All Useful*
- 0 = *Don't Know*

Uses of IGAP Scores	VU	U	SU	NU	DK
19. Identify <u>strengths</u> of groups of students (e.g., by gender, ethnicity, etc.).	4	3	2	1	0
20. Identify <u>weaknesses</u> of groups of students (e.g., by gender, ethnicity, etc.).	4	3	2	1	0
21. Evaluate and modify the curriculum.	4	3	2	1	0
22. Check alignment of the curriculum with the State Goals.	4	3	2	1	0
23. Plan for staff development activities.	4	3	2	1	0
24. Report to parents and the community.	4	3	2	1	0
25. Use as part of school improvement planning.	4	3	2	1	0
26. Track groups of students longitudinally.	4	3	2	1	0
27. Track curricula longitudinally.	4	3	2	1	0
28. Compare the performance of schools within your district.	4	3	2	1	0
29. Compare the performance of schools or districts in your area.	4	3	2	1	0
30. Compare the performance of schools or districts in the state.	4	3	2	1	0
31. Compare Illinois student performance to student performance nationally.	4	3	2	1	0