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An interview study in Delaware gathered information about educational administrators' perceptions of effective high schools and existing statewide standards for effective schools. This report describes the design and analysis of this study and demonstrates how the resulting information was used to reformulate the state's policy and program for school improvement. The paper documents the utility of Knott and Wildavsky's seven proposed standards as a framework for assessing successful knowledge utilization activity. In conclusion, the paper argues that the high impact of the interview study on policy revision was due in part to the identification of consensus among groups of educational administrators and to the provision of a systematic research-based way to bring the linguistic and conceptual frameworks of the educational administrators to bear on the problem of revising the school improvement policy. It is also suggested that Knott and Wildavsky's standards might be useful for both planning and documenting knowledge utilization activities directed toward policy revision. (Author/PGD)
IMPROVING POLICY THROUGH RESEARCH: A CASE STUDY OF THE REVISION OF DELAWARE'S PROGRAM STANDARDS FOR SCHOOL IMPROVEMENT

David A. Squires


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Abstract

This paper presents a case study which 1) describes the design and analysis of an interview study to gather information about Delaware educational administrators' perceptions of effective high schools and the existing statewide standards for effective schools, and 2) demonstrates how that information was used to reformulate the state's policy and program for school improvement. The paper documents the utility of Knott and Wildavsky's standards as a framework for assessing a successful knowledge utilization activity. The paper concludes by suggesting that the high impact of the interview study on policy revision was due in part to identifying consensus among groups of educational administrators and to providing a systematic research-based way to bring the language and conceptual frameworks of the educational administrators to bear on the problem of revising the school improvement policy. It is also suggested that Knott and Wildavsky's standards might be useful for both planning and documenting knowledge utilization activities directed toward policy revision.
# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INTRODUCTION</strong></td>
<td>1</td>
</tr>
<tr>
<td><strong>THE INTERVIEW STUDY</strong></td>
<td>2</td>
</tr>
<tr>
<td>The purpose of the Interview Study</td>
<td>2</td>
</tr>
<tr>
<td>Data Collection Process</td>
<td>2</td>
</tr>
<tr>
<td><strong>Results</strong></td>
<td>4</td>
</tr>
<tr>
<td>Administrators' Perceptions of the Characteristics of Effective Schools</td>
<td>4</td>
</tr>
<tr>
<td>Administrators' Ranking of Existing Standards</td>
<td>5</td>
</tr>
<tr>
<td>Determining the Congruence of the Data Sets and Defining Implications for Policy Revision</td>
<td>5</td>
</tr>
<tr>
<td>Similarities Across Administrator Groups in the Ranking of Existing Standards</td>
<td>7</td>
</tr>
<tr>
<td>Comparing Existing Standards with the I I I Statements</td>
<td>8</td>
</tr>
<tr>
<td>Comparing Existing Standards with the Four Major Categories Suggested from the Open-Ended Interviews</td>
<td>9</td>
</tr>
<tr>
<td><strong>THE INTERVIEW AS AN EXAMPLE OF KNOWLEDGE UTILIZATION</strong></td>
<td>13</td>
</tr>
<tr>
<td>Reception</td>
<td>16</td>
</tr>
<tr>
<td>Cognition</td>
<td>16</td>
</tr>
<tr>
<td>Reference</td>
<td>16</td>
</tr>
<tr>
<td>Effort</td>
<td>19</td>
</tr>
<tr>
<td>Adoption</td>
<td>20</td>
</tr>
<tr>
<td>Implementation</td>
<td>21</td>
</tr>
<tr>
<td>Impact</td>
<td>21</td>
</tr>
<tr>
<td><strong>Implications and Conclusions</strong></td>
<td>22</td>
</tr>
<tr>
<td><strong>REFERENCES</strong></td>
<td>23</td>
</tr>
<tr>
<td><strong>APPENDIX</strong></td>
<td>24</td>
</tr>
</tbody>
</table>
# List of Figures

<table>
<thead>
<tr>
<th>Figure</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Example of a Standard and its Components</td>
<td>3</td>
</tr>
<tr>
<td>2.</td>
<td>Summary of Standards</td>
<td>6</td>
</tr>
<tr>
<td>3.</td>
<td>Statements Congruent with Existing Standards from Open-ended Interviews</td>
<td>10</td>
</tr>
<tr>
<td>4.</td>
<td>Comparing Existing Standards with the 4 Major Categories Suggested from the Interviews</td>
<td>11</td>
</tr>
<tr>
<td>5.</td>
<td>Policy Context</td>
<td>13</td>
</tr>
<tr>
<td>6.</td>
<td>Sequence of Events in Revising School Improvement Policy</td>
<td>14</td>
</tr>
<tr>
<td>7.</td>
<td>Seven Standards of Utilization</td>
<td>15</td>
</tr>
<tr>
<td>8.</td>
<td>New Standards</td>
<td>20</td>
</tr>
</tbody>
</table>
Introduction

Goal-Directed Performance-Based Instruction (GDPBI) plan is Delaware Department of Public Instruction’s (DPI) response to the minimum competency and accountability concerns of the public. This state-wide plan includes standards for Delaware Schools K-12 which are a set of criteria for effective schools. In addition, through a monitoring process, state department personnel helps local school staff assess their schools according to the standards, and plan ways to improve. The state standards for schools developed out of six case studies of elementary schools — three high achieving and three low achieving — both groups having similar SES student intake (Spantz, et al., 1977). The six case studies suggested the initial content for the standards. During the first year of implementation (1979), the experience of DPI monitoring teams suggested that the standards needed to be revised in order to address the differences between elementary and secondary schools. As part of the revision process, an interview study was designed to gather administrators’ perceptions of existing standards and characteristics of effective high schools.

The first part of the paper describes the design and results of the interview study. The second part of the paper uses Knott and Wildavsky’s (1980) seven standards of research utilization to demonstrate the impact that the interview study had on state policy and suggests that the standards might be useful in planning knowledge utilization activities which would affect policy.
The Interview Study

The Purpose of the Interview Study

The major purpose of the interview study was to have secondary school principals, selected superintendents and central office personnel, and DPI staff give their input and recommendations for changing the existing standards to reflect their perceptions of an effective high school.

The study specifically sought answers to four questions:

1. What are the characteristics of an effective high school?
2. What is the relative importance of the existing standards for Delaware schools?
3. Is there congruence among and between the various data sets generated by the first two questions and the three groups of administrators which were interviewed?
4. What does the data analysis suggest for revising policy about the standards?

Data Collection Process

For the interview study, all high school principals in Delaware (26), representatives of all but one central office (16); and state department subject area supervisors (8), participated in individual, two-hour interviews. During the interviews, participants were asked to: 1) describe the characteristics of an effective high school, 2) rank the seventeen existing program standards for effective schools according to their importance as indicating areas for school improvement, and 3) for the five top ranked standards, critique the indicators called components employed under those standards. 1

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1 In order to critique the components, the interviewees were given two pennies for each component. They could then place as many pennies on each component as they felt were warranted by the importance the component had for indicating the effectiveness of the standard. The interviewees were also asked about changes which would make the components better indicators of an effective school.
Below is an example of one standard and its components.

**Figure 1**
Example of a Standard and its Components

**STANDARD I.** The school has a working statement of philosophy which is accompanied by school goals and focuses on the needs of students. Both the philosophy and goals are compatible with the overall educational philosophy and policies of the school districts.

**COMPONENTS OF THE STANDARD**

A. The school has a written statement on philosophy accompanied by school goals.

B. The school philosophy and goals are reviewed by the entire professional staff and revised, if necessary, prior to October 1 of each school year.

C. A needs assessment of pupil population has been done within the past two years.

D. The needs assessment includes:
   - data on student needs
   - current status of student population
   - the difference between current student status and student needs
   - priority rank of student needs
   - goals to meet priority needs

E. Priority goals are identified and focus on the physical, social and intellectual needs of students.

F. The philosophy and goals are disseminated to all staff members, parents, and the community prior to October 15 of each school year.

G. The priority goals are not in conflict with the written goals and policies of the school district.

Interviewers were trained in methods used in open-ended interview situations to elicit and record responses for the first part of the interview, and the structure and format of the second part of the interview. All interviewers had had experience in interviewing. They were matched to the interviewees, on the basis of compatibility, by the State Director of Instruction to insure candid responses. The interviewers practiced interviewing their colleagues at DPI. Before conducting the actual interviews, a letter was sent from DPI to all participants telling the purpose of the
interviews and giving advance notice that each would be asked to talk about the characteristics of an effective high school.

Results

To answer the two questions of the study, "What are the characteristics of effective schools?" and "What is the relative importance of the existing standards?" two sets of data were gathered. The first set consisted of the notes of administrators' responses to the first question. The second set consisted of the results of administrators ranking the existing standards.

Administrators' Perceptions of the Characteristics of Effective Schools.

During the first part of the interview, respondents were asked, "What are the characteristics of an effective school?" The data consisted of notes taken during the interviews. These notes from individual interviews were divided into statements. Redundant statements across all interviews were eliminated. Thus, the interviews yielded 111 statements about effective schools. (See Appendix for the 111 statements.) A more detailed explanation and rationale for this procedure can be found in Squires, 1978; 1981; Colaizzi, 1979; and Krippendorff, 1980.

The 111 statements were grouped by one RBS staff member and one DPI staff member to determine the general areas suggested by the specific statements. While there were many different ways the statements could be grouped, the general categories which had the most stability over a number of different attempts at grouping were: school focus, curriculum, leadership, and school climate.

The stability of the four categories were tested when 12 instructional division staff of the state department met and sorted the 111'statements into
their own categories. Consensus was reached about the adequacy of the suggested categories, thus using the professional experience of DPI supervisors to confirm the interview study's results. This sorting task also provided a way for different DPI staff to share their own ideas and/or conceptual maps with others in the Instructional Division. A similar activity was completed by the 9-12 Principals Advisory Council. The number of existing standards (17) then could be reduced under the four headings which were found in the interview study. Such a reduction would make the statements easier to remember and use terms which have meaning to educational administrators. The reduction possibility is tested further (see p. 11, Figure 4).

Administrators' Ranking of Existing Standards: The second set of data gathered about administrators' perceptions of characteristics of effective schools was obtained by asking the administrators to rank the existing standards for effective schools. Figure 2 summarizes how principals, central office staff and DPI supervisors ranked the existing standards; an average ranking for all interviews is also included. The average ranking for all interviewees was obtained by adding up all interviewees' rank assignments for each standard, then dividing the total by the number of interviews. The rank order of the standards for each group (principals, central office representatives, DPI supervisors) was determined in the same way.

Determining the Congruence of the Data Sets and Defining Implications for Policy Revision

In this section, the two sets of data (the open-ended interviews and the rankings of existing standards) are compared to determine their similarities
### Figure 2: Summary of Standards

<table>
<thead>
<tr>
<th>Principals ranked this out of 17 in importance</th>
<th>Central Office ranked this out of 17 in importance</th>
<th>DPI Supervisors ranked this out of 17 in importance</th>
<th>Overall, Interviewees ranked this out of 17 in importance</th>
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<tbody>
<tr>
<td>1</td>
<td>5</td>
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<td>17</td>
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<td>17</td>
</tr>
</tbody>
</table>

**STANDARDS**

1. **Philosophy, Goals, Student Needs:** The school has a written statement of philosophy which is accompanied by school goals and focuses on the needs of students. Such the philosophy and goals are compatible with the overall educational philosophy and policies of the school district.

2. **Instructional Program:** The instructional program is in concert with the school's philosophy and priority goals and supported by the staff.

3. **Principal Administrator and Supervises:** The principal administers and supervises the operation of the school.

4. **Written Curriculum:** There is a written curriculum which contains instructional objectives for all levels and content areas.

5. **Diagnosis and Analysis:** Diagnosis and analysis of each student's learning needs is an integral part of the instructional program.

6. **Learning Activities Support Curriculum:** Learning activities correspond to the school goals and instructional objectives of the curriculum.

7. **Staff Works Together:** The certified staff works together to implement the instructional program.

8. **Identification of Special Needs/Interests:** The school program provides for the identification of special needs and interests of students.

9. **Affective Needs:** The school provides for the affective needs of students.

10. **Promotion Policy:** There is a written promotion policy in operation which system performance criteria for assigning students to instructional levels and a plan for providing remedial instruction.

11. **Classroom Management:** The management of classroom and other instructional areas facilitates the accomplishment of the school's goals and objectives.

12. **Application of Acquired Skill:** The program provides opportunities for application of acquired skills.

13. **Material and Equipment Management:** The management of materials and equipment facilitates the accomplishment of the school's goals and objectives.

14. **Supplemental Program Coordinated with Regular Program:** Supplemenal programs are well defined and are coordinated with the regular instructional program.

15. **Healthy and Safe Buildings and Grounds:** The buildings and grounds are maintained and operated to provide conditions which are healthy and safe.

16. **Parent Involvement:** The school has a written policy for parent involvement which is disseminated to all parents.

17. **Aides and Volunteers:** Aides and volunteers are trained, assigned, and supervised.
and differences. Implications for revising the standards follow each analysis.

**Similarities Across Administrator Groups in the Ranking of Existing Standards.** The first procedure was to determine whether there was agreement between and within the three groups of administrators about the ranking of the existing standards. It was assumed that if there was general agreement about the ranking of the existing standards, then the rest of the data from the other sections of the interview would be treated as one group. To determine agreement between and among groups on the ranked standards, Kendall's Coefficient of Concordance (W) was used (Siegel, 1956). This non-parametric statistical procedure was determined appropriate because there are K sets of rankings (one for each interviewee) of N objects (the 17 standards). "(W) expresses the degree of association among K such variables" (Siegel, 1956, p. 229). Within groups there was moderate agreement on the ranking of the standards at the .05 level of significance: Principal W=.44; Central Office W=.46; State Department W=.33. Between the three groups there was also moderate agreement at the .05 level of significance, W=.42.

The degree and the consistency of the rankings among all administrator groups are heartening. All groups agreed that the standards in the top seven ranks were important (see Figure 2); however, each group of administrators did rank them in slightly different orders. There was only one exception to that pattern in both top and bottom groups. It appeared that the top seven standards provided a solid base from which to condense the existing standards. Of particular interest is that prominence of the standard dealing with the
philosophy of the school. Administrators recognize the importance of the school having a core of ideas and beliefs which help focus the instructional program, the management, and the staff functions of the school.

Of interest also is the degree of agreement on the standards ranked at the bottom: material and equipment management, supplementary program coordination, safety, parent involvement and aids and volunteers.\(^2\) The middle group of standards, deal with three areas: attention to students' needs and interests, application of skills, and management of classroom and materials. Consensus in this band is not as great as in the other bands. Because there was significant agreement among the three groups of administrators, the rest of the data was analyzed as a whole, without reference to the three groups.

Comparing Existing Standards with the III Statements. In order to provide an indication of whether the existing standards were congruent with the perceptions of Delaware school administrators, the III statements from the question, "What are the characteristics of an effective high school?" were grouped under the existing standards by one DPI and one RBS staff member.

\(^2\)Two issues which have recently received national prominence through federal legislation relating to Title I and P.L. 94-142 are parent involvement and mainstreaming. Standards which encompass these concepts have relatively low importance to administrators when compared to the other standards.
The data suggest that the areas of the philosophy of the school, the school administration, and the school staff working together were congruent with the general emphasis of Delaware school administrators. Moderate congruence was achieved in the area for the requirement for a written promotion policy and parent involvement. Areas not presently included in the standards are listed at the bottom of the figure. Statements dealing with instructional climate were relatively important to the administrators but were not included in the existing standards.

The results of this analysis suggest that those standards dealing with instruction may not hold as much importance for administrators. However, if the standards dealing with instruction are combined then parity is achieved with the standards on philosophy, administration and staff working together. A new standard on instructional climate is also suggested from this analysis.

Comparing Existing Standards with the Four Major Categories Suggested from the Open-Ended Interviews. The four major categories derived from the interview's 111 statements were school focus, curriculum and instruction, leadership and school climate. Given that the existing standards only partially represented the administrators' perceptions of an effective school (see Figure 3), the next analysis attempted to determine whether the four categories encompassed the existing standards. Figure 4 presents the four categories on the left, the number of statements supporting that category in the middle, and the standards which could be subsumed under that category on the right.
### Figure 3

**Statements Congruent with Existing Standards from Open-ended Interviews**

<table>
<thead>
<tr>
<th>Standard</th>
<th>Congruent Statements with Existing Standards from Open-Ended Interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philosophy, Goals, Student Needs</td>
<td>26</td>
</tr>
<tr>
<td>Instructional Program Supports Philosophy</td>
<td>0</td>
</tr>
<tr>
<td>Written Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>Learning Activities Support Curriculum</td>
<td>0</td>
</tr>
<tr>
<td>Application of Acquired Skill</td>
<td>3</td>
</tr>
<tr>
<td>Affective Needs</td>
<td>4</td>
</tr>
<tr>
<td>Diagnosis and Analysis of Students' Learning Needs</td>
<td>1</td>
</tr>
<tr>
<td>Promotion Policy</td>
<td>8</td>
</tr>
<tr>
<td>Identification of Special Needs/Interests</td>
<td>1</td>
</tr>
<tr>
<td>Supplementary Program Coordinated with Regular Program</td>
<td>4</td>
</tr>
<tr>
<td>Classroom Management</td>
<td>2</td>
</tr>
<tr>
<td>Material and Equipment Management</td>
<td>0</td>
</tr>
<tr>
<td>Principal Administers and Supervises</td>
<td>12</td>
</tr>
<tr>
<td>Staff Works Together</td>
<td>14</td>
</tr>
<tr>
<td>Aides and Volunteers</td>
<td>1</td>
</tr>
<tr>
<td>Parent Involvement</td>
<td>5</td>
</tr>
<tr>
<td>Healthy and Safe Building and Grounds</td>
<td>2</td>
</tr>
<tr>
<td><strong>- Other Statements Not Congruent with Existing Standards</strong></td>
<td></td>
</tr>
<tr>
<td>Instructional Climate</td>
<td>7</td>
</tr>
<tr>
<td>Students' Reactions to School</td>
<td>4</td>
</tr>
<tr>
<td>Athletic Program</td>
<td>2</td>
</tr>
<tr>
<td>Behavior Code</td>
<td>3</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>4</td>
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</tbody>
</table>
Comparing Existing Standards with the 4 Major Categories Suggested from the Interviews

<table>
<thead>
<tr>
<th>Major Categories from Open-ended Interview</th>
<th>No. of Statements</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus</td>
<td>26</td>
<td>Philosophy, Goals, Student Needs Instructional Program</td>
</tr>
<tr>
<td>Leadership</td>
<td>14</td>
<td>Classroom Management</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Material and Equipment Management</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Principal Administers and Supervises</td>
</tr>
<tr>
<td>Curriculum and Instruction</td>
<td>21</td>
<td>Written Curriculum</td>
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<td></td>
<td></td>
<td>Learning Activities</td>
</tr>
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<td></td>
<td></td>
<td>Support Curriculum</td>
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<td></td>
<td>Application of Acquired Skill</td>
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<td></td>
<td></td>
<td>Diagnosis and Analysis</td>
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<td>Program Policy</td>
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<td>Identification of Special Needs/Interests</td>
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<td>Supplementary Program Coordinated with Regular Program</td>
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<td></td>
<td>Aides and Volunteers</td>
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<tr>
<td>School Climate</td>
<td>25</td>
<td>Affective Needs</td>
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<tr>
<td></td>
<td></td>
<td>Staff Works Together</td>
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<td>Parent Involvement</td>
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<td></td>
<td></td>
<td>Healthy and Safe Building and Grounds</td>
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</tbody>
</table>

The chart indicates that the four categories have a relatively balanced distribution of responses from administrators compared to the distribution reported in Figure 3. This suggests that the existing standards could be condensed around the four categories suggested in Figure 4.

Summary of Results

The interview study found that there was a significant agreement from the three groups of administrators on the importance of the following existing standards from the ranking activity:
A school focus or philosophy, the curriculum/instructional program, leadership and the school climate appear to be the major organizing ideas administrators use to describe effective high schools.

There was moderate agreement between and among all groups interviewed about the relative importance of the existing standards. Descriptions of effective high schools were for the most part congruent with the existing standards, although there was emphasis on the following main ideas: school focus and philosophy; the principal’s and staff’s importance and curriculum and instruction concerns were very much present as indicators of an effective high school in the open-ended interviews. In addition, effective high schools were usually described as having a positive school climate. There is presently no existing standard which deals with school climate.

The analysis suggests that the following changes might be made in the existing standards.

- The four categories of focus, leadership, curriculum and instruction and school climate could be used to organize the existing standards.
- Standards dealing with curriculum and instruction could be condensed to reflect principal’s relative priorities.
- Existing standards ranked near the bottom may need to be dropped or combined with other standards.
- A standard around school climate needs to be created to reflect administrator’s perceptions.
The Interview Study as an Example
of Knowledge Utilization

The domains of politics, research and professional experience each have something to contribute in the difficult process of designing and implementing policies to improve schools. The difficulty of merging these three world views is not to be underestimated. However, the extent that politics, research and professional experience are congruent may increase the likelihood of a successful school improvement program. This assumption is shown diagramatically below.

Figure 5
Policy Context

![Diagram showing the intersection of Professional Experience and Opinions, Research Results, and Political Context leading to New or Revised Policy.]

The interview study was an attempt to use the systematic and objective research methodology of the interview study to determine the congruence between existing policy and professional experience and opinions of educational administrators.

The interview study was based on the assumption that if educational administrators' perceptions of effective schools were congruent and support the standards, the resulting school improvement policy revision would be more likely to be successful.

13 18
Below is a sequence of events that describes the steps taken in revising the school improvement standards. The length of time from the first to the last event is nine months. This sequence provides a reference for discussing the interview study as an example of successful knowledge utilization.

**Figure 6**
Sequence of Events in Revising School Improvement Policy

- Interview study proposed by Research for Better Schools (RBS) Regional Exchange (Rx).
- Director discusses it with DPI staff.
- Director proposes study to 9-12 Advisory Council.
- Director appoints DPI supervisor to assist in study design.
- DPI supervisor and RBS Rx staff member design study.
- DPI supervisor and RBS Rx staff member train DPI interviewers.
- Interviewers conduct data gathering.
- DPI supervisor and RBS Rx staff member conduct initial data analysis.
- DPI supervisor and RBS Rx staff member report initial results to DPI supervisors - they try sorting open-ended interview statements.
- Reports initial results to 9-12 Advisory Council - they try sorting open-ended interview statements.
- Final results reported to Division staff.
- Director appoints three committees involving everyone in Division on the revision of the standards and monitoring process.
- Director invites other RBS staff to work with three DPI supervisors on developing school climate standard.
- Director reports results of Division's work to 9-12 Advisory Council.
- Director arranges retreat to train other DPI staff in the revised school improvement process.

Knott and Wildavsky (1980) state, "Policy-makers are in the business of manipulating variables to produce desirable effects and avoid undesirable ones," (p. 427). Figure 7 describes seven standards of utilization which assesses whether a particular information was having an effect on policy-makers.
1. **Reception**

Utilisation takes place when policy-makers or advisors receive policy-relevant information. When the communication comes to rest in the "in-basket," so that the data "reach" the policy-maker rather than remain on an analyst's desk or in the files of a distant consultant firm, utilisation is complete.

2. **Cognition**

The policy-maker must read, digest, and understand the studies. When he has done so, utilisation has occurred.

3. **Reference**

If frame of reference is the criterion, then utilisation somehow must change the way the policy-maker sees the world. If information changes his preferences, or his understanding of the probabilities or magnitudes of impacts he fears or desires, utilisation is a reality. Altering frame of reference is important because, in the long run, the policy-maker's new vision will show up in different policy priorities.

4. **Effect**

To make a real difference, information must influence the actions of policy-makers. If they fight for adoption of a study's policy recommendations, we know a real effort was made if political forces or other events block it.

5. **Adoption**

What is essential is not whether policy-relevant information is an input to the policy process, some say, but whether it goes on to influence policy outcomes. Policy results, not inputs, is the proper standard.

6. **Implementation**

Policy adoption is critical but, if adopted policy never becomes practice, information has no chance to affect action. Adoption without implementation is a hollow victory.

7. **Impact**

A policy may be implemented but fail to have the desired affects. Hence it may be (and is) argued that only when policy stimulated by information yields tangible benefits to the citizenry has utilisation taken place.

The seven standards are hierarchically arranged so that the first must precede the next. For example, a policy-maker must have "cognition" of information before a change in his/her "frame of reference" can take place.

The seven standards will be used in this paper as a framework for discussing how the interview research results described in the previous section were utilized.
Reception

In the reception stage, data reaches the policy-maker. Because of
the way the interview study was designed, the policy-makers in the state
department were also the ones who conducted the interviews. The initial
findings and ensuing recommendations from the study were also reported
during several division meetings. Thus, reception of the raw interview
data was, in some ways, assured.

Cognition

In the cognition stage, policy-makers gain understanding of the stu-
dies. While collection of information, such as interviews, is a common
practice in DPI, systematic aggregation of collected data from interviews
is not as common. Thus, in order to build confidence in the conclusions
of the study, and in order to build a consensus among the division staff,
one staff member and an RBS Rx staff member developed a systematic way to
categorize the responses from the results of the question, "What are the
characteristics of an effective high school?" (see p. 3) Once the 111
statements were decided on, then division staff and the 9-12 Principals
Advisory Council had a chance to sort the cards in ways that made sense
to each individual. This strategy insured "cognition," not only of the
final results, but also about the way the results were generated. The
final results were reported in meetings of the division and the Principals'
Advisory Council.

Reference

Reference refers to a change in how a policy-maker sees the world.
The standard of altering a policy-maker's frame of reference is important
because of the possible consequence of a long-term change in policy priorities. Changes in frames of reference occurred on the part of DPI staff as a result of the interview process and of division director's use of the process. The Director's frame reference was confirmed and strengthened. To support these two conclusions some background information is necessary.

State departments generally have two major functions: 1) to monitor schools and districts to insure that funds are being disbursed properly, and 2) to insure that law and code are being implemented. Thus, the schools/districts view the state as a "watchdog" at times and some state staff may view themselves as enforcers of the laws and code.

The school improvement process was based on the state assisting schools improve, a role different from those usually assumed by state agencies. The standards and the school improvement process represent both a minimum expectation of the state and a process which individual schools can use to look at themselves each five years to become effective within their own unique institutions. For example, the first standard states that every school should have a working philosophy. This is assessed by whether the school has a philosophy in writing. In addition, the principal and key staff are asked to give the philosophy of the school. Similar responses indicate the presence of a working philosophy. Thus, state department staff become "connoisseurs" of schools, savoring the school's flavor and reflecting on opportunities with school staff which might lead to school improvement. (See Eisner (1979) for an in-depth look at "connoisseurship." ) For the school improvement process in Delaware, compliance is not the issue. There
are no sanctions, such as removal of accreditation, or rating of schools as satisfactory or unsatisfactory which is part of Delaware's School Improvement Process. The state staff's role is much the same function as that of internal auditors, except that state staff for school improvement are not auditing spending procedures, but are sampling the quality of the school according to certain research-based standards (Squires, 1980).

Now, the Director of Instruction, as part of his frame of reference, had the idea that schools should be assisted in seeing areas where they could improve; schools would not be assessed, graded, and labeled. Not all of his staff understood or agreed with that point of view. In addition, not many principals understood why the state department sent out yet another team to "assess" schools.

Given this state of affairs within the Division, the division director used the interview study to build consensus. His staff conducted most of the interviews and compared notes on similarities and differences. DPI supervisors who at first were skeptical about the principals' abilities and motives for school improvement, began to change their perceptions after talking with principals. During staff meetings, DPI supervisors tried their hands at sorting the 111 statements into groups. These activities began to change the frames of reference within the department and external perceptions of the school improvement process by principals because of their involvement in the interviews. Because department staff interviewed the principals, they came to a more complete understanding of the problems of secondary principals in the state. The principals also reported that they found other school
improvement processes, such as middle states accreditation, a meaningful way to look at the total school, removed from the everyday demands of maintaining an organization. Thus, the Director of Instruction used the interview results to change the frame of reference of internal and external constituents. In addition, the results of the study tended to reinforce his own point of view. Thus, the "reference" criteria for utilization should also include confirming, as well as changing, a policy-maker's frame of reference. Both appear important.

Effort

This stage is characterized by policy-makers influencing the actions of others and pushing for recommendations. The Director of Instruction, encouraged by the results from the interviews, then committed each of his staff to work on the revision of the standards. As one of the recommendations of the interview study was to include a standard on school climate, as this had been one of the issues not covered in the original standards (see p. 10), a special task force was set up to address that issue. The results of the interviews, as well as other types of research information now contained in a synthesis of research on effective classrooms (Huitt and Segars, 1980) and effective schools (Squires, 1980), were used to condense and modify the existing standards so that they would more fully reflect the most relevant research available, the professional opinions of administrators, and the assumption that a state's role in school improvement was to assist schools. Thus, on the basis of staff time, an effort was made to see that the results of the interview study was adopted into policy.
**Adoption**

The adoption stage is characterized by whether policy-relevant information is incorporated into policy itself. The new standards and a revised process for school improvement were adopted. The new standards are summarized below.

**Figure 8**

New Standards

**STANDARD I**

The school has a stated philosophy accompanied by school goals.

**STANDARD II**

The school has a planned program, supported by staff, that follows the school's philosophy, goals, and identified priorities for improvement.

**STANDARD III**

The principal administers and supervises the school's program.

**STANDARD IV**

There are written curricula that address the nine Educational Goals for Delaware and contain instructional objectives for all subjects.

**STANDARD V**

Pre/post assessment and analysis of each student's needs are integral parts of instruction.

**STANDARD VI**

Learning activities are designed to accomplish the instructional objectives of each curriculum.

**STANDARD VII**

The management of classrooms and other instructional areas facilitates learning.

**STANDARD VIII**

The school climate/atmosphere is conducive to learning and positive human interaction.

**STANDARD IX**

Programs and services for meeting the special needs and interest of students are well-defined and coordinated with the school’s instructional program.

**STANDARD X**

There is a written promotion policy in operation which states performance criteria for assigning students to instructional levels and includes a plan for providing remedial instruction.

**STANDARD XI**

Staff members are trained, assigned, and supervised.
Obviously, not all of the suggestions of the interview study were adopted. (see page 12 for a summary). What was adopted, however, was consistent with the recommendations that the standards be consolidated, and a new standard on school climate be developed (see standard VIII). Standard I on school philosophy was simplified and retained its position. Standard III highlights the principal's leadership in the school. The number of standards dealing with the instructional program was reduced. The state's educational goals became integrated into Standard IV; this had not been the case in the previous set of standards.

Overriding the whole of the revision/adopton process was the idea that the standards and the school improvement process should not be punitive, rather the process should foster schools using the data generated in the school improvement process to make their own decisions about improvement opportunities.

Implementation

In this stage, the policy itself is put into practice. Staff from other divisions in the state department were trained in the use of the instruments and the procedures for collecting data in schools during a three-day DPI retreat. During the 1980-1981 school year, DPI school improvement teams have visited schools. Thus, the policy was implemented.

Impact

Did the revised policy/practice actually improve schools? At present, it is too early to tell. Reactions to the school improvement process from school principals have been favorable as indicated by letters from principals to the Director of Instruction.
Implications and Conclusions

From this case study the seven standards of utilization which Knott and Wildavsky propose are useful in assessing knowledge utilization in a policy revision process. It must be noted that the interview study was not designed with knowledge of Knott and Wildavsky's standards, although they appear to be applicable to the interview study as an exercise of knowledge use affecting policy outcomes. It appears that it would be possible to plan a policy creation or revision effort explicitly using Knott and Wildavsky's standards. Further, the standards also appear to offer a framework which could guide documentation of projects whose goal is to have knowledge affect policy.

The knowledge utilization standards suggest various levels of knowledge use. Different levels may be appropriate for different knowledge utilization efforts. For example, one should expect that ERIC (Educational Resources Information Center) might have a lower standard of knowledge utilization (perhaps at the cognition stage) than the Regional Exchanges' whose aim is to use research knowledge to effect policy adoption and implementation.
References


APPENDIX

III. Statements of Effective Schools

1. Principal who is concerned with management, curriculum and instruction
2. Principal's leadership reflected in the school
3. Assessment procedures linked to decision making
4. An annual review and update of goals and priorities
5. Allocation process
6. Ongoing internal monitoring
7. Clear management guidelines
8. Quality control
9. Documentation
10. Resources to operate school
11. Accessible administration
12. Administration leading staff instruction
13. Direction given to teachers on content they decide method of teaching
14. Staff and students in one decision making
15. Well-defined teacher roles
16. Building administration has autonomy and support from central administration
17. District needs a plan of action to help schools
18. Accountability at all levels
19. Statement of purpose for school defined with students in mind
20. Expected self-image should be a priority
21. Student self-image should be a priority
22. Goals
23. Emphasis on quality in school program
24. Produces students that function in the world
25. School should prepare students to get along with others
26. Increase physical well-being of students
27. Emphasis positive—don't ignore negative
28. Knowledge of kids
29. Flexibility
30. Responsive to community/student needs and characteristics
31. Community faith and support
32. Reports to parents
33. Parent involvement
34. A quality approach for transmitting the culture
35. A way to publicize its successes
36. Informal supportive relationships among faculty and administration
37. A comfortable staff that knows where it's going
38. Committed staff that knows where it's going
39. A qualified and committed staff that is happy in what they're doing
40. Shared idea about school's purpose
41. Adult responsible for student behavior
42. Key people in charge
43. Teachers and administrators talking with students
44. Fair and consistent operation of the school
45. Written rules and regulations should be understood by all
46. Discipline reinforced through course offerings and home influences
47. Behavior code with empathy
48. Good models for behavior
49. Students should want to be in school
50. Supervised formal and informal activities
51. Students attend regularly
52. Operating environment of the school
53. High student expectations
54. Students who appreciate the experiences the school provides
55. The joy of learning preventing discipline problems
56. A place students enjoy
57. Opportunity for students to express themselves in a variety of constructive ways
58. Class conflict with students
59. Good atmosphere for learning
60. Instructional climate
61. Time spent discussing philosophical matters and ideas
62. A sense of order
63. Mutual respect
64. A place where kids feel comfortable to express just ideas
65. Well-maintained physical plant
66. Environmental appeal
67. Limited to size (1,000-1,500)
68. Clean and uncluttered
69. Help adolescents into adulthood
70. Life-long activities
71. Application by students of knowledge and basic skills
72. Must have plan for students to develop a value system
73. Student needs considered in designing programs
74. Teachers teaching students, not subject matter
75. Opportunity to pursue individual interests
76. Elementary programs support secondary
77. Comprehensive program
78. Balanced and interesting program experiences
79. Emphasis on effective as well as academic areas
80. Student achievement less important than student satisfaction
81. Emphasizing what students can do not what they can't do
82. Diversified curriculum
83. Standardized program
84. Flexible schedule
85. Structured program not too democratic
86. Clearly defined goals for each department
87. Support personnel support teaching staff
88. A monitoring of a student's total high school experience as they have a feeling of belonging and ownership
89. An equally understood student progress reporting process
90. Career and academic focus
91. Curriculum opportunities attached to career goals
92. Special programs for disruptive youngsters
93. Opportunity for drop-outs to return
94. Provisions for transient students
95. Supplemental and Special Education part of curriculum
96. Evaluation system
97. Broad and extensive extracurricular activities
98. Athletic program
99. Athleticism emphasized
100. Spirit through intramural activities
101. Competitive staff
102. Variety of ages/experience in staff who are qualified
103. Solid staff—staff stability; positive attitudes toward kids
104. A staff that has solid academic training, common sense, and a good understanding of learning principles
105. Inservice for teachers
106. Staff development on-going
107. Take the best after others experiment
108. Conduct research within the school to find out what works
109. A willingness to use supervisory staff
110. An on-going curriculum study with staff involved
111. A well-planned procedure for evaluating teachers