This research study was undertaken in order to understand the dynamics of curriculum revision. The study examines reasons for change, persons involved in revision, frequency of revision, ways of evaluating a revised curriculum, and consistency of revision processes across school districts. Information was obtained through surveys distributed to suburban school districts in New York and Pennsylvania. Results indicate that (a) the most important planners and initiators of curriculum change are the teachers and principals, while the state has some control, and the student role is minimal; (b) no two schools use the same evaluation methods or have the same philosophy for what might be the most effective means of evaluation; (c) school districts are not satisfied with their current means of evaluation; and (d) curriculum revision occurs in a helter-skelter fashion and does not cross school districts. It is suggested that with increased state control and organization, the school districts could retain the flexibility they desire while improving the development and effectiveness of their curricula. (PB)
The Dynamics of Curriculum Revision

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There have been many books and articles published on methods and ways to improve and develop different curricula (e.g. Benne & Montague, 1951; Rucker, 1960; Richmond, 1971). These books and articles were directed toward the individual school districts that had determined the need for curriculum change. When a school decides to revise a curriculum, books of this nature provide a blueprint for the process of revision.

The interest of this research was not in evaluating different curricula. This research was developed in order to arrive at some understanding of the dynamics of curriculum revision. Given that curricula changes are made in the interest of providing better avenues for education, and that this area deserves investigation, this research was developed for the purpose of examining reasons for change, the persons involved in revising, the frequency of revision, the way in which a revised curriculum is evaluated, and the consistency of revision processes across school districts.

It was thought that there might not be a high degree of correspondence among school districts as to the dynamics of change. This can be inferred because a large dissemination of information regarding curriculum revision across school borders has not been found to exist (Bruner & Wood, 1941). This research examines the degree of correspondence for curriculum revision across different school districts. It also compares differences in curriculum revision across state borders (two states, New York and Pennsylvania). The comparison was done in order to examine the role of the state in curriculum revision.
METHOD

Forty surveys were distributed to school districts of a suburban nature. Inner-city schools and rural districts were omitted for the purpose of obtaining a homogeneous sample within states.

Description of the Survey

Background: Part I - The initial part of the survey was designed to determine the demographic features of the school districts sampled. Included in this part were questions about the size of the school district, the expectation for population change, and the pupil-teacher ratio. The factors were measured in order to provide a basis for classification.

Curriculum: Part II - The main part of the survey dealt with the curriculum of each school district and attempted to provide answers to the following questions:

1. Who plans/initiates curriculum revision?
2. How often are curricula revised?
3. How are revisions organized?
4. What type of State Control is placed on curriculum revision?
5. How are revised curricula evaluated for effectiveness?
6. What type of obstacles are encountered in curriculum revision?
RESULTS

Of the 40 surveys distributed, 25 were returned (62%). The majority of the returned surveys (15) were from Pennsylvania while ten surveys were received from New York.

Background

The range in student population for the school districts was 1,300 to 15,270 students. The mean population was 6,200 students. The mean population of the New York schools (5,850) was somewhat smaller than the Pennsylvania schools (6,450). The small difference (600) between the schools surveyed in the two states indicated that both areas were of approximately the same population. There was a correspondence also in the average number of teachers per school district with the average per school district in Pennsylvania being 318 teachers and the average in New York being 312.

It was thought that there might be a difference in the teacher-student ratio within the two states. There was some evidence that the Pennsylvania schools had a slightly higher ratio (20.1 students/teacher) than the New York schools (18.5 students/teacher).

The background data indicates that the Pennsylvania school districts were approximately equal in population with the New York schools and both employed about the same number of teachers per district. This demonstrates that differences which appear in curriculum between the states cannot be attributed to an inherent difference in the size of the school districts.

A corollary to the background information was the determination of the percentage of school districts which had experienced a decrease or increase in student population for the current school year. Included
also was a projection for an increase or decrease during the next school year. The results correspond to the general trend of decreasing enrollment for American schools. In 1973, 44% of the school districts sampled in Pennsylvania and New York experienced a decrease in student population while only 26% increased in student population. The prediction for next year indicates that more schools will experience a decrease in student population (50% predict a decrease) and there are fewer schools predicting an increase (19%).

Curriculum Information

The background information demonstrated that school districts are declining in population. Therefore, the first factor to be considered is the role of declining population on curriculum change. For most of the schools interviewed, (73%) indicated that a decline in student population would have no effect on curriculum matters. When an effect was expected, it was primarily economic, i.e., declining population produces lower revenues thereby forcing the curtailment of programs and the elimination of some courses, and the decreasing need for personnel.

Who Plans Curriculum?

Pennsylvania and New York were very similar in regard to the persons responsible for curriculum changes. The two primary guiding forces were the teachers and the principals. Teachers and/or principals were mentioned in 93% of the surveys as the initiators and planners of curriculum revision. The Administration (Department Heads, school board, Curriculum Directors) were identified as a contributing force in 48% of the cases. The administration was mentioned, for the most part, in conjunction with the teachers, principals, or both.

In only .08% of the surveys were the students mentioned as being a part of the initiation and the planning stages of curriculum change.
However, when the survey asked specifically whether the students participated in recommending changes, 55% said that the students participated in making contributions toward the development of curriculum. The contrast of the two percentages indicates that if the students do have a role in the determination of curriculum, it is a very minor role at best.

When the role of the state for the control of curriculum change was examined, a very interesting picture was produced. There was not any evidence that either state directly initiates curriculum change (0% of the surveys mentioned the state for curriculum revision initiation). Once a curriculum change is initiated, there is evidence for state control and this control differs between the two states sampled. Evidence for the difference in control comes first from the question where states are asked the year in which the most recent state guidelines were published. Pennsylvania responses were quite different from New York responses. For the Pennsylvania districts, 43% responded by saying that they did not know while 33% of New York districts gave the same response. Examining the accuracy of responses, however, indicated that the New York state answers were more accurate (mean = 1972.1, actual = 1973) versus Pennsylvania (mean = 1969.1, actual = 1973). The comparison of the variance between the two groups using the Hartley's F max test (F(8,6) = 39.3 p < .01) indicated that the Pennsylvania distribution of responses (Standard Deviation = 4.48) was significantly more variable than the New York responses (Standard Deviation = .72). The difference in the accuracy and the variability may in part be attributed to the use of state guidelines in the planning of curriculum. In only 64% of the surveys from Pennsylvania were the state guidelines being used while in New York, 90% of the districts reported using State guidelines.
The control of the state may not necessarily be in the development of different curricula. The state was indicated to be in the position of having policing responsibilities for existing curricula. The appraisal of existing curricula is different for Pennsylvania and New York. When asked whether the state examines the different curricula for use, the Pennsylvania surveys produced evidence that the state reviewed the curriculum once it was established in 73% of the cases. Only 20% of the surveys from New York reported state examination of curriculum once it had been developed and implemented. A chi square test indicated that New York and Pennsylvania differed as to the percentage of districts reporting state review ($\chi^2(1) = 5.39 \ p < .02$). Also, there was very little evidence to suggest that either of the states had any power in the approval of specific curriculum prior to implementation (only .08% indicated that the state approved the curriculum before it was instituted.)

Extra-school influence (psychologists, PTA, social pressure) did not produce a large effect on curriculum change. In only .04% of the surveys were outside influences reported in the initiation of curriculum change. When the school districts were asked to estimate the percentage of curriculum guidance coming from outside sources, the mean percentage was a low 10.1% which suggests that there is not much of a contribution from sources outside the individual school districts.

Measurement of Curriculum Change

Given that schools do change and revise curricula, the interest was in how school districts measure the effectiveness of revision and in what they considered to be the best measure of adequacy of curriculum.

No attempt was made to collapse the responses into different categories because it became apparent that the answers to the evaluation question were extremely variable. There was no indication of consistent
measurement being used (in terms of one measurement tool) across the school districts. In none of the surveys were the evaluative tools utilized in the same way. Generally, a battery of answers were given; "a rating sheet for projects, pupil interest, standardized tests," "teacher evaluation", "criterion referenced tests", etc. In the 25 surveys, there were nine different responses which were reported being used. Clearly this indicates that the effectiveness of a program is determined by a wide variety of devices with no consistent pattern across school districts.

The school districts were asked to indicate the best method for evaluation of a curriculum revision. In many cases, the answers were very global; "pupil interest", "Performance", "interviews." When specific tools were mentioned (criterion referenced tests, standardized tests), these were not the tools which the schools were using.

The highest frequency of response was the "don't know" response for the most effective evaluation. It was startling to find that in no cases did the estimate of the most effective evaluation method correspond with the method being used. It would seem that if a school district was satisfied with the procedures it uses for measurement of curriculum change, there would be a high correspondence between what was used and what was considered to be the most effective tool. This clearly was not the case, suggesting that the curriculum measures which are presently in use are not considered to be optimal.
DISCUSSION

A brief review of the complex results section is in order. For suburban school districts in Pennsylvania and New York, the most important planners and initiators of curriculum change are the teachers and principals. These factors (teachers and principals) appear to have nearly complete control over the determination for curriculum revision. They also control the changes which are made and which tools are used to measure the effectiveness of the revision. The role of the student in curriculum change is minimal. The state has some control, this being in the structure of curriculum (New York) and the review of existing curriculum (Pennsylvania.)

The measurement of the effectiveness of curriculum revision is a thorny problem. No two schools use the same tools of evaluation and no two schools have the same philosophy for what might be the most effective instrument for evaluation. The school districts also do not feel as though the measurement tools they now employ are the best means of appraising the curricula.

It is argued that there has to be a guiding principle for curriculum revision. The evidence in this survey indicates that revision occurs in a helter-skelter fashion dependent upon factors idiosyncratic to the individual school districts. When changes occur in curriculum, the measurement of the effectiveness plus the changes themselves are nested within the school districts and definitely not crossed with respect to other school districts.

One source for guidance in revising curricula might originate at the state level. By initiating curriculum revision and a pattern for measurement of effectiveness at a higher level, a much more efficient
system would develop and much of the variability resulting from school
districts' decision would be eliminated.

The variability of the type of measurement tool utilized in the
different school districts indicates that the school districts may not
have a clear conception of how to measure the effectiveness of revision.
It is argued that this measurement should be taken out of the hands of the
individual school districts and given to the state. The state should,
through experimentation, determine an effective means of measuring curriculum
improvement and use this tool in all districts.

Also taken away from the school districts should be the decision made
by the districts for the type of curriculum changes made. A much more
efficient system would be to find one effective curriculum and to implement
this curriculum in all school districts across the state. It may be found
(by experimentation plus effective measuring tool) that another curriculum
was more efficient in helping children learn more in a shorter amount of
time. This curriculum would then be distributed for use across the state.
A type of design such as this eliminates much of the variability associated
with school district decisions.

The data does indicate that the states at the present time do give
some direction for the course of curriculum change. In New York, the
guidelines published by the state are used in some capacity by most of the
school districts. The guidelines in Pennsylvania are not used as ex-
tensively as those in New York, but there is evidence that Pennsylvania
has a degree of state review over existing programs. It is believed that in
both New York and Pennsylvania, the control and guidance of the school
districts is too small to provide an effective dissemination of information
for curriculum change. Also, the low degree of control by the states allows
the individual school districts a free hand in the determination of what
curricula are used and the methods involved in implementation.
The present policy of low state surveillance is inefficient. The present system allows for a wide variety of curricula which lack a firm foundation. With increased state control and organization, the school districts could retain the flexibility they desire while at the same time would be improving the development and effectiveness of their curricula.
The Authors gratefully acknowledge the assistance of Dr. C. Dianne Colbert.
REFERENCES

Benne, K. D. & Montague, B. Human relations in curriculum change. New York: Dryden Press, 1951


