Adoption and Abandonment of Innovative Practices in High Schools

"Innovations in the secondary schools of the North Central Association are alive and well with many of the better known programs firmly entrenched. ... We may have discovered that truly effective innovation in education can only be realized through systematic planning and well conceived change strategies."

THE history of secondary education in this country has amply demonstrated that when a public institution fails to meet the changing demands and needs of the society which supports it, a new institution will spring up to replace the old. This explains, in part, the academy movement which replaced the Latin grammar schools and the rise of the public high schools following the Civil War.

Since 1900, major changes have taken place in organizational structure and educational practice in public high schools. The consolidation of small high schools into larger units; the junior high/middle school movement; the comprehensive high school concept, all were developed to meet the demands and needs of the communities which supported public high schools in the United States.

In recent years, there developed demands for curriculum, instructional, and staffing changes. The need for new courses and areas of emphasis became clear. New instructional strategies and techniques emerged. These included such innovative ideas as mini-courses, independent study, television instruction, team teaching, action learning, differentiated staffing, computer assisted instruction, simulation and gaming. That the public secondary school has survived for more than 100 years may be attributed, in part at least, to its ability to change and adapt to new demands and new needs of students and communities. This sensitivity to new demands has sometimes resulted in the schools assuming responsibilities without necessary resources and adopting innovations which subsequently were discarded.2

A number of questions related to edu-

1 The research upon which this article is based was performed pursuant to a grant from the National Institute of Education. Points of view or opinions stated do not necessarily represent official National Institute of Education position or policy.


*Neil C. Aslin, Chairman of Educational Administration and Supervision, University of Missouri, Columbia; and John W. DeArman, Assistant Superintendent—Instruction, North Kansas City School District, Missouri.
cational change are being asked today. What are the characteristics of the more innovative schools? Is the rate of adoption of educational innovations accelerating or declining? What innovative practices have been adopted and later abandoned and why?

In April 1967, Gordon Cawelti's well known report on innovation in accredited high schools appeared in Nation's Schools. The study, which assessed the status of 27 innovations in curriculum, technology, and organization, encompassed all accredited high schools in the nation.


ASCD Tape Cassettes Order Form

Addresses by leaders in education, recorded live as they speak out to educators on current school concerns. Convenient to use in any audio cassette playback—at home, at school, en route.

QUANTITY
1. WILLIAM M. ALEXANDER, "Curriculum Planning As It Should Be." 1971. 48 min. $6.00 (612-20101)
2. JAMES A. BANKS, "Ethnic Studies as a Process of Curriculum Reform." 1975. $6.00 (612-20145)
3. JULIAN BOND, "The Crisis of Change: Trauma or Opportunity." 1975. $6.00 (612-20141)
5. JEROME S. BRUNER, "The Process of Education Reconsidered." 1971. 50 min. $5.00 (612-20100)
6. PRICE M. COBBS, "Dare To Care/Dare To Act." 1971. 46 min. $5.00 (612-20103)
7. ARTHUR W. COMBS, "Accountability for Humanism." 1973. 50 min. $6.00 (612-20104)
8. ARTHUR W. COMBS, "The Humanistic Imperative in an Accountable School System." 1973. $6.00 (612-20140)
10. FENWICK W. ENGLISH, "Needs Assessment and Goal Setting Skills for Curriculum Workers." 1975. $6.00 (612-20138)
11. NOLAN ESTES, "Parent/School Relations and Community Involvement." 1974. $6.00 (612-20127)
13. MARIO FANTINI, "Role of the Alternative School Movement in Urban Education." 1974. $6.00 (612-20119)
15. RICHARD L. FOSTER, "Educational Supervision: Dead or Alive?" 1969. 38 min. $5.00 (612-20107)
16. ALEXANDER FRAZIER, "Open Schools in Perspective." 1973. 54 min. $6.00 (612-20108)
17. ALEXANDER FRAZIER and Doctoral Students, "Questions About Open Schools." 1972. 60 min. $5.00 (612-20109)
18. JACK R. FRYMIER, "Curriculum for Individuality." 1973. 48 min. $6.00 (612-20110)
19. JACK R. FRYMIER, "A Curriculum Manifesto." 1972. 60 min. $6.00 (612-20111)
20. CHARLES M. GALLOWAY, "Personalized Teaching for Individualized Learning." 1973. 50 min. $6.00 (612-20112)
21. GENEVA GAY, "Curricular Implications of Cultural Pluralism." 1975. $6.00 (612-20139)
22. JOHN I. GOODLAD, "Schools Can Make a Difference: Partnerships, Programs, Practices." 1975. $6.00 (612-20143)
23. ROBERT HEILBRONER, "(Education for Alternative Life-Styles." 1975. $6.00 (612-20132)
24. CLAIRE HENRY, "Eliminating Barriers to Reading Success." 1974. $6.00 (612-20121)
25. RUTH LOVE HOLLOWAY, "Reading and the Individual." 1973. 45 min. $6.00 (612-20133)
26. LAWRENCE KOHLBERG, "Education for a Society in Moral Transition." 1975. $6.00 (612-20142)
27. LEON LESSINGER, "Outcomes of the Accountability Movement." 1974. $6.00 (612-20120)
28. ALVIN D. LOVING, SR., "One America by the Year 2000." 1972. 45 min. $6.00 (612-20114)
29. JAMES B. MACDONALD, "Cultural Pluralism." 1974. $6.00 (612-20130)
30. S. GWEN McMAHON, "The Teaching of Justice in the Schools." 1975. $6.00 (612-20136)
31. RICHARD F. NEWTON, and others, "Differenntiated Staffing." 1974. $6.00 (612-20128)
32. JOHN R. PLATT, "Education for Survival: Our Task." 1974. $6.00 (612-20123)
34. KEVIN A. RYAN, "The Implications of Moral Education Theories for Classroom Practices." 1975. $6.00 (612-20137)
35. JONAS SALIK, "Educators: Trustees of Evolution?" 1974. $6.00 (612-20131)
36. HUGH J. SCOTT, "Financing and Supporting an Education To Insure Individual Development." 1973. 45 min. $6.00 (612-20155)
37. HAROLD G. SHANE, "Social Decisions and Curriculum Changes for a Threatened Environment." 1975. $6.00 (612-20135)
38. CHARLES E. SILVERMAN, "Crisis in the Classroom—A Diagnosis with Suggestions for Remedy." 1971. 33 min. $6.00 (612-20116)
39. BARBARA SIZEMORE, "Education for a Pluralistic Society." 1974. $6.00 (612-20125)
40. NEIL V. SULLIVAN, "Forces Affecting Educational Decisions." 1973. 50 min. $6.00 (612-20117)
41. NEIL V. SULLIVAN, "Crisis in Values." 1971. 37 min. $6.00 (612-20107)
42. WILLIAM THOMPSON, "Lindisfarne: Education for a Planetary Culture." 1974. $6.00 (612-20134)
43. RICHARD Usher, "Humanistic Values and Concerns in the Curriculum-Making Process." 1974. $6.00 (612-20130)
44. NEWMAN WALKER, "An Action Agenda Today for Education's Futures." 1974. $6.00 (612-20124)
45. WILLARD WIRTZ, "Moral Responsibilities of Government." 1974. $6.00 (612-20133)

Name __________________________
Street __________________________
City ___________________________ State ______ Zip ______

Please send me the tapes indicated. Enclosed is my check or money order payable to ASCD in the amount of ________________________

Each tape cassette order must be accompanied by payment—billed purchase orders cannot be accepted for cassettes.

Association for Supervision and Curriculum Development
1701 K Street, N.W., Suite 1100
Washington, D.C. 20006

602 Educational Leadership
This study produced the following general conclusions:

1. The diffusion rate of innovations had been speeded up considerably from that established by Mort due to the influence of federal legislation, public interest, and leadership by imaginative educators.

2. There was considerable variation among schools and states in the rate of innovation.

3. Innovation was motivated as much or more by the "bandwagon" phenomenon as by theories of instruction or learning.

4. The haphazard way changes were introduced into schools led to highly uneven efforts across the country.

5. Large, public, suburban high schools with large per-pupil expenditures tended to be the most adaptable institutions.

What has happened over the past nine years? Has the picture changed essentially since Cawelti completed his study? What is the status of innovation in accredited high schools today?

A study by DeArman involving high schools accredited by the North Central Association and partially replicating the Cawelti study was completed in June 1975 under the sponsorship of the National Institute of Education and the University of Missouri, Columbia.

The population for the study included the 3,711 member high schools in the North Central Association of Colleges and Schools. The survey produced a response from 3,476 schools, a return of 94.7 percent. Of these, 3,271 responses were usable.

No generalizations to all accredited high schools in the nation were made as a result of this study, because of differences in membership standards and operating regulations. Nevertheless, it should be remembered that North Central schools, as other accredited schools, tend to be larger and better financed, and often offer more diverse programs than nonaccredited high schools.

For the purposes of this study, innovation was defined as a form of change qualitatively different from existing forms and thought to be more effective in accomplishing the goals of the school. Thirty-three innovations, including 20 of the 27 in Cawelti's study, were selected from an extensive compilation. The selection was made somewhat arbitrarily upon the advice of a nationwide panel of 13 educators using the criteria of: ease of interpretation by the respondent; classification by the categories of curriculum, technology, and organization; and the likelihood that the innovation could be adopted by most schools.

Findings

Description of Responding Schools

The schools included in this study reported relatively large enrollments with 69.5 percent having enrollments of 500 and above. Per pupil expenditures for instructional purposes in the majority of schools was $800 or more, with the most commonly reported interval being $800 to $1,500. Over 90 percent of responding schools were public institutions and most were located in larger communities with 64.4 percent reported in suburban areas or communities of 5,000 to over 400,000 residents. Thus, responding schools tended to be larger, moderately to well financed, public schools located mainly in larger communities.

Status of Innovations

Responding schools reported higher adoption and lower abandonment than the schools in Cawelti's nationwide study. Schools...
included in this study reported adoption of an average of 9.7 of the 33 innovations with an abandonment average of 0.76. This compares with an average adoption of 6.1 and an average abandonment of 1.7 in Cawelti’s study of 27 innovations.

In general, innovations which were the most often abandoned were those which tended to be complex, expensive, and difficult to administer. Examples of this included PSSC Physics, flexible scheduling, programmed instruction, television instruction, data processing equipment, and team teaching. Conversely, innovations which tended to be more durable were simpler, less expensive, and relatively easier to administer. Examples of these were simulation or gaming, early leaving plans, learning packages, independent study programs, and ethnic studies. Many of the more durable innovations were those which may be developed by individual teachers and which often may be implemented without affecting ongoing programs. This finding tends to agree with that of Brickell ⁵ that schools generally adopt innovations that do not require changes in the existing structural framework. With the exception of PSSC Physics and IPS Physical Science, packaged, commercially produced programs providing convenient access to most materials needed to implement the program were abandoned by relatively few schools.

### Adoption of Innovations

Just as in the Cawelti study, NCA schools reported greater adoption of curriculum innovations than innovations in technology or organization. Of the 14 curriculum innovations in the study, PSSC Physics, IPS Physical Science, humanities courses, learning packages, and ethnic studies had been adopted by at least 25 percent of the schools. Career education, mini-courses, and independent study programs were reported as

adopted by at least 50 percent of the schools.

Organizational innovations accounted for the second largest group of adoptions. Of the 12 included in the study, college credit courses had been adopted by 42.4 percent of the schools. Team teaching, the use of teacher aides or paraprofessionals, action learning, and early leaving plans had been adopted by more than 50 percent of the schools.

Technological innovations continued to experience rather limited acceptance, accounting for 22.8 percent of all innovations reported adopted. Of the seven innovations in technology, programmed instruction and computer assisted instruction had been adopted by more than 25 percent of the responding schools, while more than 50 percent of the schools had adopted simulation or gaming and data processing equipment.

The tables included here illustrate the average number of innovations adopted per school by enrollment, expenditure, type of support, and area served from both Cawelti’s study and the study of North Central Association schools. It will be noted that in every category NCA schools had adopted a considerably larger average number of innovations than had schools in the earlier study by Cawelti.

Per pupil expenditure and enrollment played an important part in adoption of innovations by schools in both studies. A linear relationship between expenditure and the number of innovations adopted existed in both studies. The same relationship was found between enrollment and adoption.

Cawelti found that public schools had adopted a slightly higher average number of innovations than had nonpublic schools. In the NCA study, nonpublic schools reported a higher average than did public schools. However, nonpublic schools make up a very small percentage of the schools in both studies, and in the case of the NCA, they experienced a much higher rate of abandonment.

In both the Cawelti and NCA studies, schools in larger communities reported a higher average number of adoptions of innovations than those in small towns and rural areas. However, where Cawelti’s study found the highest average number of adoptions in suburban schools, the largest number in NCA schools were in those located in cities of over 400,000.

The diffusion rate of innovations established empirically by Mort had been speeded up considerably by the time Cawelti conducted his national survey. In Cawelti's words, “Change in American education has gone from a crawl to a walk.” The results of the study of North Central Association schools indicate that the rate of diffusion among those schools has been speeded up still further. Only 5.2 percent of the 33 innovations adopted by schools in this study had been implemented prior to 1965. Of those remaining, 64.8 percent of adoptions occurred between 1970 and 1974. Of the nine practices found in a majority of schools, 95.2 percent had been adopted since 1965.
Enrollment and per pupil expenditure for instructional purposes were the major factors in achieving the faster rate of adoption reported by North Central schools. Schools with enrollments of under 200 reported 72.7 percent of adoptions of innovations occurring in 1970 or later. Other intervals and corresponding percentages were: 200-499, 70.7; 500-1,499, 66.0; 1,500-2,499, 59.2; and over 2,500, 54.2. Schools with per pupil expenditures for instructional purposes of under $500 reported 69.2 percent of adoptions occurring in 1970 or later. Other intervals and their corresponding percentages were: $500-799, 68.1; $800-1,500, 63.3; over $1,500, 56.8.

Conclusions and Implications

The total scope of this study went well beyond the limits of this report. In addition to the study of adoption and abandonment which paralleled Cawelti's investigation, this research dealt with the impetus for adoption; reasons for abandonment; sources from which the innovation was developed; the student population for which the innovation was designed; and the length of time the innovation was in effect before abandonment.

The following general conclusions and implications which deal with factors common to the Cawelti study may be derived from an analysis of the findings:

1. The increased extent of adoption of innovations in North Central Association schools and the decrease in abandonment indicate a greater degree of durability than that reported for innovations in schools in the Cawelti study.

2. In general, innovations suffering high abandonment are those which tend to be complex, expensive, and difficult to administer. Innovations tending to be more durable are generally simpler, less expensive, easier to administer, and in some cases, can be developed and implemented by individual teachers without affecting other ongoing programs of the school or the existing structural framework.

3. The amount of time required for the diffusion and adoption by North Central schools of a majority of the innovations in this study is significantly less than that reported necessary in previous studies of adoption.

4. Innovations tend to be found in greater numbers in larger public urban and suburban North Central schools.

5. There is a linear relationship between per pupil expenditure, and the average number of innovations adopted in North Central schools, agreeing with the findings of earlier studies.

6. Innovations which are packaged and provide the teacher easy access to the needed materials appear to be rather durable.

7. There is a linear relationship between size of enrollment and per pupil expenditure, and the date of adoption of innovations. The larger the enrollment and the higher the per pupil expenditure, the earlier North Central Association schools adopted innovations.

8. The relatively higher abandonment of more complex or expensive innovations implies the need for a definite strategy for change, especially when alterations in the existing structure are anticipated.

9. The relatively lower abandonment of simpler teacher-initiated innovations implies that one of the conditions for durable change may be to develop strategies encouraging decentralized, less sophisticated practices which can be directed by the teacher, rather than requiring considerable administrative attention.

Innovations in the secondary schools of the North Central Association are alive and well with many of the better known programs firmly entrenched. The fanfare associated with the introduction of new programs of the 60's is gone; but real progress continues, however quietly. Perhaps this is as it should be for many innovations introduced in the glare of the limelight a decade ago failed embarrassingly in the same limelight.

We may have discovered that truly effective innovation in education can only be realized through systematic planning and well conceived change strategies.