

DOCUMENT RESUME

ED 250 803

EA 017 311

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TITLE The Improvement Process in High Schools: Form, Function, and a Few Surprises. Research on the Improvement Process in Schools and Colleges.
INSTITUTION Texas Univ., Austin. Research and Development Center for Teacher Education.
SPONS AGENCY National Inst. of Education (ED), Washington, DC.
REPORT NO R&DCTE-R-3188
PUB DATE Apr 84
NOTE 145p.; Papers presented at a symposium on The Improvement Process in High Schools: Form, Function, and a Few Surprises at the Annual Meeting of the American Educational Research Association (Montreal, Quebec, Canada, April 11-15, 1983). For selected individual documents, see TM 840 744-745 and EA 017 323. For other related documents, see EA 017 309-310, and EA 017 320-324.
AVAILABLE FROM Publications Sales, Research and Development Center for Teacher Education, EDA 3.203, University of Texas at Austin, Austin, TX 78712-1288 (\$4.50).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150) -- Collected Works - Conference Proceedings (021)
EDRS PRICE MF01/PC06 Plus Postage.
DESCRIPTORS Administrative Organization; Administrator Role; Curriculum Development; Data Analysis; Data Collection; Educational Administration; *Educational Change; *Educational Development; *Educational Environment; *Educational Improvement; *High Schools; Instructional Improvement; Principals; Research Design; Research Methodology; School Community Relationship; Secondary Education

ABSTRACT

The Research and Development Center for Teacher Education has launched a national study of change at the high school level, involving visits to a national sample of 18 high schools by 2-member research teams who conducted interviews with various constituencies to determine: (1) the types, sources, and purposes of changes in high schools; (2) the key units of change; (3) the key situational factors influencing the change process; and (4) the management of the change process. Based on the initial findings of this study, five symposium papers are presented. In the first paper, "Collecting Data in High Schools: Methods and Madness," Leslie Huling-Austin addresses the problems of collecting data in high schools and describes the methodologies developed. Study findings are presented in the remaining four papers: "Changes in High Schools: What Is Happening--What Is Wanted," by William L. Rutherford and Leslie Huling-Austin; "Community, Context, and Co-Curriculum: Situational Factors Influencing School Improvements in a Study of High Schools," by Suzanne M. Steigelbauer; "Sources of Leadership for Change in High Schools," by Gene E. Hall and Frances M. Guzman; and "Facilitating Change in High Schools: Myths and Management," by Shirley M. Hord. Discussant remarks by Joseph C. Vaughan (symposium chair) and Freda Holley follow the papers. (TE)

THE IMPROVEMENT PROCESS IN HIGH SCHOOLS:
FORM, FUNCTION, AND A FEW SURPRISES

Gene E. Hall
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The project presented or reported herein was performed pursuant to a grant from the National Institute of Education, Department of Education. However, the opinions expressed herein do not necessarily reflect the position or policy of the National Institute of Education, and no official endorsement by the National Institute of Education should be inferred.

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Discussants

**Joseph C. Vaughan
Freda Holley**

Report No. 3188

Papers presented at the American Educational Research Association

April 1984

New Orleans, Louisiana

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INTRODUCTION

The performance of students, teachers and principals at the high school level is currently of great interest and concern to the educational and public communities. This concern has increased as social and economic pressures on public education have escalated. Criticism of high schools from both the public and the education profession has increased along with demands for improvement. At the same time, the stereotypic image is that high schools are unchanging.

A considerable amount of research has been conducted in elementary schools and much progress has been made in understanding how change occurs at this level. However, high schools are sufficiently different from elementary schools to prohibit direct transfer of the concepts and knowledge gained in studies of elementary schools. For these reasons, staff at the Research and Development Center for Teacher Education have launched a national study to investigate how change occurs in high school settings.

In preparation, researchers conducted early exploratory visits to fifteen high schools across the nation. From these initial visits, research questions were formulated and data collection methodologies were developed. The study design centered on visits to a national sample of 18 high schools by two-member research teams who conducted personal interviews with representatives of the broad spectrum of high school constituencies. The study questions were:

- 1) What are the types, sources and purposes of changes in high schools?
- 2) What are the key units of change?
- 3) What are the key situational factors that influence the change process?
- 4) How is the change process managed in high schools?

The initial findings of this study serve as the basis for the set of papers in this symposium. In the first paper, "Collecting Data in High Schools: Methods and Madness," Leslie Huling-Austin addresses the problems of collecting data in high schools and describes the methodologies developed for this study. Study findings are presented in the remaining four papers. The paper topics and presenters are as follows:

"Changes in High Schools: What is Happening - What is Wanted"
William L. Rutherford and Leslie Huling-Austin

"Community, Context, and Co-Curriculum: Situational Factors Influencing School Improvements in a Study of High Schools"
Suzanne M. Stiegelbauer

"Sources of Leadership for Change in High Schools"
Gene E. Hall and Frances M. Guzman

"Facilitating Change in High Schools: Myths and Management"
Shirley M. Hord

The symposium was chaired by Joseph C. Vaughan of the National Institute of Education who has an extensive background in the conduct of educational research that addresses the improvement of schools. His wide-ranging experience coupled with a broad working knowledge of the educational change and improvement process allows him to offer an insightful perspective. He also served as a discussant along with Dr. Freda Holley of the Austin Independent School District in Austin, Texas. Dr. Holley is well respected nationally for her work in public school evaluation and research. Formerly the Director of the Office of Evaluation and Research, she currently serves as the Assistant Superintendent for Secondary Education. Her expertise in research and evaluation and her concern about high schools makes her exceptionally well qualified to discuss and critique this body of work.

Joe Vaughan's introductory remarks precede the five symposium papers. Discussant remarks follow the papers.

Introductory Remarks
Joseph C. Vaughan

We intend to have a rather free-flowing and hopefully highly interactive session. This is the Improvement Process on High Schools: Form, Functions and A Few Surprises. There are a couple of reasons why it will be free flowing--one is that the data that have been collected are basically descriptive in nature and what we have basically are a few good guesses and a few thoughts about what those data show about the change process in high schools and the people who are involved in those change processes. So, you won't get a lot of definition. What we hope you will get is a lot of rich description and some thought provoking ideas and descriptions that can help you in thinking through some of these issues. Some of what you'll hear is very consistent with the literature as it stands now; some of it flies in the face of that. We are hoping that we can get a chance to get a variety of perspectives represented.

I should say just a couple of words about the prior work. I know that a couple of people are going to address this so I won't do it in any detail. You may be familiar with the work at the R&D Center for Teacher Education in Austin and this particular project that has focused on looking at change processes both in school systems and higher education institutions. I am sure a lot of you are familiar with the Concerns Based Adoption Model, and the Stages of Concern and Levels of Use of individuals. The work then branched into more on school and context data and probably the most recent definitive product out of the last phase was looking at the elementary principals' styles in intervening in change. Probably some of you saw in the February issue of Educational Leadership an article that described their findings thus far in that study. This effort builds on that work by moving up to the high school level and this first phase is basically descriptive, trying to get a feel for the context within which they're working.

I am not going to say much more except to introduce the folks. We were arguing about the order up to two minutes ago, so I hope I get it right this time. Also if you see people disappear up here, there is about a 3 foot drop off the back edge of this platform, so if anybody is a nervous speaker and starts stepping back they're going to be in a lot of trouble. Given that, we will also try to keep some time at the end for the outsiders' comments. The discussants are Freda Holley and I, and to be honest we're not all that outside, as we've managed to keep in touch over several years with the project. Some people would say that ruins our objectivity; I think some of the staff says that makes us more ornery and obnoxious because they can't hide stuff quite as well since we've had an ongoing familiarity with it. But in any event, we want this to be a mostly free discussion and also brainstorming, not just among people up here but with your input. We hope you'll keep that in mind and take advantage of the opportunity in the end to join in with us. I'm just going to start by introducing the first person, Leslie Huling Austin, who will share "methods and madness in their methodology" in getting the data that they've collected thus far.

**COLLECTING DATA IN HIGH SCHOOLS:
METHODS AND MADNESS**

Leslie Huling-Austin

**Research and Development Center for Teacher Education
The University of Texas at Austin**

R&D Report No. 3183

**Paper presented at the annual meeting of the
American Educational Research Association
New Orleans, Louisiana
1984**

COLLECTING DATA IN HIGH SCHOOLS: METHODS AND MADNESS^{1,2}

Leslie Huling Austin
Research and Development Center for Teacher Education
The University of Texas at Austin

Why Study High Schools

Dissatisfaction with high schools on the part of both the public and the education community has increased in recent years, and demands for school improvement at the high school level are made more and more frequently. There is increasing need for practical knowledge that can be used to facilitate change and bring about improvement in the secondary school. The demand for high school improvement is currently demonstrated by numerous national commissions which have recently issued reports addressing the problems in high schools. Among these national reports are included:

A Nation At Risk: The Imperative for Educational Reform
(National Commission on Excellence in Education, 1983)

Action for Excellence
(Education Commission of the States, 1983)

Academic Preparation for College: What Students Need To Know and Be Able To Do
(College Board Equity Project, 1983)

Making the Grade: Report of the Twentieth Century Fund Task Force on Federal Elementary and Secondary Education Policy
(Twentieth Century Fund, 1983)

¹Paper presented at the annual meeting of the American Educational Research Association, New Orleans, April 1984.

²The research described herein was conducted under contract with the National Institute of Education. The opinions expressed are those of the authors and do not necessarily reflect the position or policy of the National Institute of Education. No endorsement by the National Institute of Education should be inferred.

Education and Economic Progress: Toward a National Education Policy
(Carnegie Corporation, 1983)

Horace's Compromise: The Dilemma of the American High School
(Sizer, 1984)

High School: A report on Secondary Education in America
(Boyer, 1983)

Educating Americans for the 21st Century
(National Science Board Commission on Precollege Education in
Mathematics, Science and Technology, 1983)

Persons concerned about educational improvement in high schools are in need of practical assistance. Yet, the majority of school improvement and school effectiveness research has been conducted in elementary schools (Purkey & Smith, 1983; Goode, 1983). Much progress has been made in understanding how change occurs at that level (Hall et al., 1983; Crandall et al., 1982; Loucks & Hall, 1979; Hall, Hord & Griffin, 1980). However, relatively little research has been conducted at the high school level and the high school is sufficiently different from the elementary school so as to prevent a direct application into the high school setting of what has been learned about change in elementary schools. Among the factors that make the high school different from the elementary school are the size of the school, the organization of the faculty (high school teachers are typically organized into academic departments and are much more specialized than their elementary counterparts) and the division of administrative responsibility among several school administrators and department heads. High schools are different from elementary schools in that the academic department rather than the school as a whole is frequently the target of change in school improvement efforts. The curriculum in high schools is also more complex as a result of the athletic program, the vocational program, and the co-curricular program, just to name a few.

It appears from our initial research in high schools that the management of change in high schools also is quite different from what occurs in elementary schools. This initial work confirms what secondary principals and others have been saying for years: The high school is indeed "a horse of a different color." The high school is without question an extremely complex organization. In fact, it has been suggested that the high school is among the best known and the least understood public institution in America (Byrne, Hines & McCleary, 1978). For these reasons the staff on the Research on the Improvement Process (RIP) Program of the Research and Development Center for Teacher Education has made the investigation of the change process in high schools their primary research priority for the 1980's. In this paper, the high school research endeavors of the RIP program will be described, with special attention being given to the design and methodology developed for the study. In addition, some of the "madness" encountered by the research staff while engaged in the study will be related. The paper concludes with what has been learned about how to conduct research in high schools.

Getting Ready--Phase I Exploratory Visits

As part of the preparation for the 1983-84 High School Study the RIP program staff conducted an initial exploratory effort which consisted of a series of semi-structured visits to high schools during the 1982-83 school year. One or more staff members visited 12 high schools in various states including Texas, Oregon, Maryland, Indiana, New York and Florida. The purpose of these exploratory visits was to become more familiar with the organizational structure of high schools and the school improvement efforts taking place and to examine possible sources of information and strategies for data collection. In each visit, school administrators, department chairpersons, teachers and students were interviewed to gain their insight

related to how change occurs in high schools, the significant innovations that were present in high schools, and how to best conduct research on change in high schools. Special attention was devoted to understanding the role and function of department chairpersons in school improvement efforts. In each succeeding exploratory visit, the interview questions were further refined. Following each visit, a report of the findings from the visit was compiled by project staff and the total research staff debriefed their colleagues about their experience and perceptions.

The exploratory visits were tremendously helpful to project staff in planning for Phase II of the study. It became clear that the next phase of study needed to be a descriptive investigation of a national sample of high schools. It was also determined that the best data collection methodology was tape recorded interviews with a wide variety of sources including the principal, assistant principal for instruction, department heads, teachers, students, counselors, the student activities director, the athletic and music director, the school secretary, and various Central Office personnel. The interview data would also be supplemented by both school and district demographic information, and other information and documents provided by the districts.

The initial visits also pointed out the need for researchers to collect data in pairs, so that they could provide two viewpoints on the school and serve as a cross-check of each other's impressions of the school and the changes taking place. Two day data collection visits to the school were determined to be the most productive for the study. It appeared that one-day visits were not long enough as the first day debriefing clarified the areas in which additional information was needed that could be collected on the second day. Also, the amount of additional information gathered after two days did not appear to be worth the added expense.

Design and Organization of Phase II

Study Questions and Study Design

In the summer of 1983 plans were finalized for Phase II of the study and negotiations were begun for study sites. Throughout a series of staff meetings, major study questions and supporting subquestions were revised and formalized and are shown in Figure 1. These questions focus on the types, sources and purposes of changes that are presently taking place in high schools, the units (individual, department, schoolwide, districtwide, other) involved in change, the influence of various situational factors on change, and how change is managed in high schools.

The staff considered a number of factors in the design of the study. It was believed that it would be important to look at different kinds of schools in terms of size and community type and at schools with varying change dynamics. After numerous discussions, it was decided that the sample should be comprised of both schools that were considered to have a large amount of change taking place and schools that were considered to be typical for their district. The community types included were rural, urban, suburban and mid-size cities. High school size also varied with the nature of the community type. The final design included two high schools per site with 9 sites in 9 states geographically dispersed across the United States. Figure 2 is a graphic display of the study design. The two schools within a site were selected by the Central Office person(s) who served as our district contact. One school chosen was that judged by the district to be the most changing in the district, while the other was a school that was more typical of high schools in the district. There were two exceptions to this procedure. One was the rural site which by necessity was comprised of two single-high school districts. In this case, the area contact person selected the two high

Figure 1

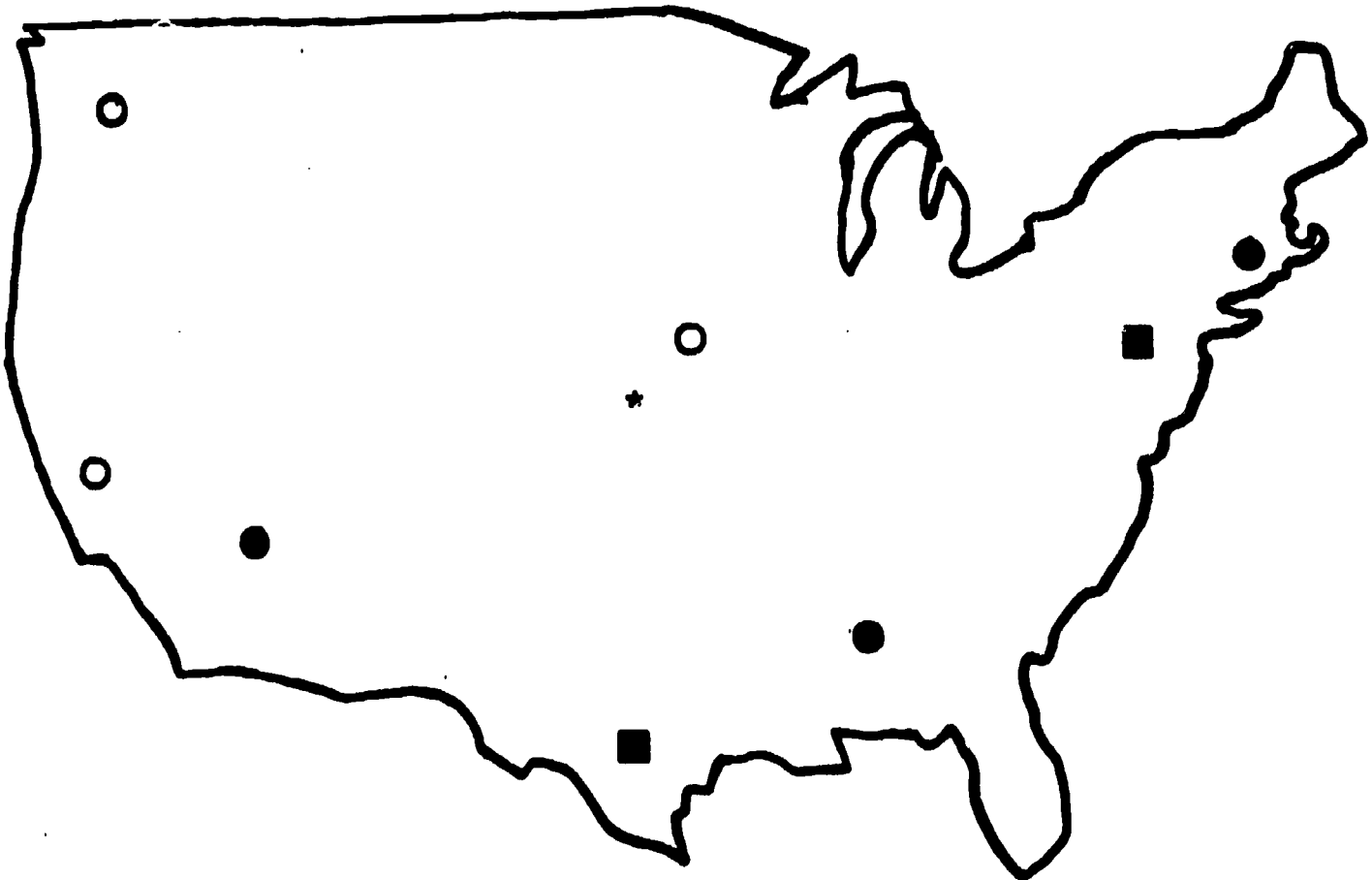
Research Questions for High School Study

Major Study Question: How does change occur in high school settings?

1. What are the types, sources, and purposes of changes in high schools?
 - A. What kinds and sizes of changes have been implemented recently?
 - B. Within each school, how many changes are underway at this time (1983-84 school year)?
 - C. What were the reasons for the changes?
 - D. Were changes developed more frequently by internal or external sources?
 - E. Who was the impetus for implementing change?
2. What are the key units of change?
 - A. Under what conditions do schoolwide changes occur?
 - B. To what extent does the academic department function as a unit of change?
 - C. Under what conditions do schoolwide changes occur?
 - D. What other groupings are involved in change, e.g. grade levels, subgroups of teachers, etc?
3. What are the key situational factors that influence the change process?
 - A. In what ways does the co-curriculum affect change?
 - B. How do community values and other contextual factors influence the improvement process in high schools?
 - C. In what ways do students influence the change process?
 - D. What are the effects of external agencies on high school change?
4. How is the change process managed in high schools?
 - A. What do school administrators do to facilitate change?
 - B. What do department heads do?
 - C. How does the individual teacher affect and respond to improvement efforts?
 - D. Are there significant others involved in managing change? If so, who are they and what do they do?
 - E. What are some of the different configurations of leadership for change?
 - F. How is change planned for and monitored?

Figure 2
HIGH SCHOOL STUDY DESIGN

GEOGRAPHIC DISPERSION



DESIGN

Sites
2

3

3

1

Type of District

- Urban Pennsylvania
 Texas
- Suburban Georgia
 Connecticut
 Arizona
- Mid-size City Iowa
 California
 Oregon
- * Rural Kansas

-- 2 schools selected at each site, one changing, the other a typical school for the district.

N = 9 sites, 18 schools, 72 researcher days of data collection.

schools, one which was perceived to be a changing high school and the other that was perceived to be typical for the area. The other exception was a district in which the Central Office procedures required that schools be allowed to volunteer to participate. After the visit, researchers were able to reach consensus on which school was the more changing of the two.

Structuring the Data Collection Methodology

A set of twelve role-specific interviews were developed by the research staff for use in Phase II. A set of interview questions were formulated around each of the study questions. Because it was not feasible to interview each person using all questions which were derived for the study, subsets of the questions were incorporated into multiple interviews so as to provide a range of persons answering each set of questions and to have each set cross-verified by several interviewees. Figure 3 is a summary of the roles of interviewees and the types of questions addressed to each. A sample of the interview questions used in the study are shown in Appendix A.

In addition, demographic data were collected on each high school and each district. A sample Demographic form is included in Appendix B.

Negotiating for Sites

Negotiations for each of the nine sites were handled slightly differently. In each case, one member of the research staff served as the

³The CBAM Training Cadre is a group of approximately 30 individuals from across the U.S. and other countries who have received extensive training in the Concerns-Based Adoption Model and use the concepts and measures in their own work. Included in the Cadre are school-based curriculum consultants, staff developers, evaluators, intermediate service agency facilitators, state department consultants and facilitators, and higher education professors. The CBAM Cadre assists in the work of the RIP program by conducting workshops that have been developed out of RIP research and by advising RIP project staff in matters related to both training and research.

Figure 3

Study Questions	1. Types Sources Purposes	Interventions	2. Key Units	3. Situational Factors Influencing	4. Management of Change Process	General Background and Self Characterization
Principal	X	X	X	X	X	X
AP for Instruction	X	X		X	X	X
Dept. Head	X	X	X	X	X	
Teacher 1	X	X	X		X	
Teacher 2	X	X		X		
Students	$\frac{1}{2}$ X			X		X
Counselor	X	X		X		X
Student Activity Director	X	X		X		
Athletic Director	X	X		X	X	
Music Director	X	X		X	X	
Curr. Coord.	X	X	X		X	
Central Office Secondary Ed. Adm.	X	X			X	X

primary coordinator for the site. In several areas of the country CBAM Cadre³ members worked to help link the project with area school district personnel.

Once the site coordinator had made telephone contact with a prospective district, an explanatory letter was sent to the district contact person outlining the study and answering various questions participants were likely to have. The staff member coordinating the site would then follow-up with one or more telephone calls to the local contact person to talk about the district's participation in the study. In some instances it was necessary to get formal approval from the district's Central Office administration or School Board, while in other districts this was not necessary. Once the district had agreed to participate and the two high schools were chosen based upon the criteria for changing and typical, the staff coordinator contacted each study school principal by telephone to talk with them about their school's participation in the study. This conversation was followed up with a packet of information which included an explanatory letter to the principal along with a list of persons we wished to interview during the two-day visit, a sample interview schedule (see Appendix C) and a blank interview scheduling grid. In addition, a set of study participant letters was included to be given to each person to be interviewed during the visit. This letter explained the study and included on the back of it a set of focusing questions that participants could make notes about and bring with them to the interview. The staff coordinator then again telephoned the principal several days prior to the visit to answer any questions that had arisen and to offer assistance in organizing the schedule, if needed. The project offered to pay for revolving substitute teachers to cover classes while teachers and department heads were being interviewed. Interestingly, all of the schools declined the offer for the substitute teachers and organized the schedule around teachers' conference periods.

Preparing Data Collectors for the Visit

The site coordinator from the project staff assumed primary responsibility for preparing and organizing the data collection team for the site. The team consisted of the coordinator and three other data collectors. Because of the small number of project staff and the other responsibilities and obligations of the staff, additional data collectors who were not a part of the regular staff were utilized. In most instances, at least two regular staff members supplemented by CBAM Cadre members comprised the data collection team. In all but one case, it was possible to assign a regular staff member to each study school. (The exception was one school to which a Cadre member and a former regular staff member were assigned.) Cadre members who collected data in the study received "coaching" from the site coordinator prior to the visit along with the interview questions and tapes of sample interviews. Each data collector was supplied with a pre-visit packet which included copies of all the correspondence with the site, a complete set of questions to use in the interviews, the interview schedule (if supplied by the school prior to the visit), a set of the school and district demographic forms to be completed during the visit, and a set of data reduction forms to be used in the write-up after the visit. In addition, each pair of data collectors assigned to a school were given tape recorders and 36 hours of cassette recording tape.

Going to the Field--The Sites and What Was Encountered

In every school visited researchers were treated cordially and the principal and school staff were friendly and helpful. In several of the schools the principal and sometimes other administrators and staff appeared to have some anxiety about why they were chosen to participate. This anxiety seemed to subside quickly once the school personnel had the opportunity to

visit with the researchers and ask any questions they had about the study and their role in it. The warm reception given in the high schools is perhaps a study finding itself--contrary to popular opinion, high schools are not cold, hostile places for doing research. In fact, the opposite appears to be true--if approached properly, high school personnel are open to researchers and even welcome the opportunity to discuss their work and how they see their world.

Districts and Schools in the Sample

By design, the sample of schools visited was very diverse. Included were schools in small, rural districts, in very affluent suburban districts and in inner-city urban districts. District enrollments ranged from approximately 1,000 to 200,000; school enrollments ranged from 317 to 2,500. Per pupil expenditure varied from \$2,064 to \$4,682. The percentage of minority students in the schools visited ranged from 1% to 99% and the percentage of students continuing on to college varied from 22% to 80%. Included in the sample were schools facing rapid growth and schools struggling for survival because of declining enrollments. Principals involved in the study had between 2 and 26 years of experience and managed faculties ranging in size between 22 and 135. Several of the schools visited were housed in buildings more than 50 years old, others were located in new, modern facilities, and still others were housed in a variety of facilities in between. A summary of the demographics of the districts and the schools visited are shown in Figures 4 and 5, respectively.

Madness Encountered

The experiences of researchers in the study were anything but dull. The logistics and scheduling alone were often no small feats. Establishing a date

Figure 4
Demographics of Districts in The High School Study

	URBAN		SUBURBAN			MID-SIZE CITY			RURAL	
	PA	TX	AZ	GA	CT	CA	IA	OR	KS Site 1	KS Site 2
Population of Community	1,688,210	329,967	230,000	166,903	61,301	350,000	200,000	100,000	7,500	6,000
District Enrollment	202,469	64,957	14,882	41,460	7,567	23,608	30,981	17,500	1,104	1,231
Number of High Schools	31	8	10	9	2	8	6	4	1	1
% of Minorities Represented in District	74	90	15	4	12	10	15	7	5	2
Per Pupil Expenditure 1981-1982 (in \$)	2,598	2,051	2,064	1,871	4,682	2,664	2,937	3,200	2,437	2,410
Average Teacher Turnover Rate (%)	0*	8	6	15	2	6	5	6	10	5
Number of Years Superintendent Has Been in Position	1	3	1	7	4	4	3	2	13	11
Number of Central Office Administration Staff	551	60	32	35	61	14	108	25	1	2

* district faced with staff reductions

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Figure 5
Demographics of Schools in The High School Study

	URBAN				SUBURBAN						MID-SIZE CITY						RURAL	
	PA		TX		AZ		GA		CT		CA		IA		OR		KS	
	C	T	C	T	C	T	C	T	C	T	C	T	C	T	C	T	C	T
Age of School Building	68	56	45	60	12	31	35	26	14	27	30	22	71	61	31	19	11	22
Enrollment	2500	1981	1700	1931	2037	1469	1805	738	1378	1335	1601	1455	2132	2272	1700	1340	317	375
Number of Fulltime Faculty Members	135	124	92	107	97	76	73	36	86	81	61	55	84	92	71	65	22	28
% of Minority Students	99	99	91	99	5	8	3	3	10	14	27	34	12	7	6	3	3	1
Annual Teacher Turnover Rate (%)	8	0*	3	9	10	3	10	8	6	5	10	1	3	5	10	7	10	2
Number of Years Principal Has Been at School	11	6	2	4	2	2	2	11	22	5	6	4	3	26	8	3	18	17
Principal Number of Years Experience as a Principal	11	6	5	6	2	2	9	12	22	11	10	5	7	26	18	6	21	17
Number of Other Administrators at School	2	2	3	3	3	3	4	2	3	2	3	3	3	3	3	3	0	0
% Students Continuing to Technical Training	5	7	30	10	5	1	10	10	2	16	5	1	4	2	2	5	15	35
% Students Continuing to College	35	22	30	30	65	60	55	40	81	67	80	60	41	50	80	60	50	50

(C = Changing School, T = Typical School for District)

* district is faced with staff reduction

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for the visit was often problematic since it needed to be convenient for both high schools and also be a date for which four data collectors were available. Once the visit was scheduled, coordinating the travel itineraries of the data collectors who were often coming from three different locales was quite a challenge. More than once, researchers were standing in airport lobbies or at rent-car reservation desks looking for colleagues wondering if they might have missed their connecting flights or had misunderstood the agreed upon meeting time and place. Needless to say, the airlines and the weather did not always cooperate, but in spite of it all the data collection was achieved with two researchers at each study school on the agreed upon dates. This is not to say, however, that data collection was uneventful.

For example, at one site, researchers were surprised to find that their visit coincided with the last day of the quarter and that teachers were frantically trying to figure and record grades using the new computerized system for the first time. Teachers were very kind to take time out of their busy schedules that day to be interviewed, but several asked the interviewer if she knew what they were supposed to do with their grade sheets when they were completed.

As mentioned earlier, the scheduling of visits was never simple. In one instance the site coordinator had established a date for the visit with the principal. In addition, they set up a meeting to work out the details of the visit. When she arrived, she was greeted by an assistant principal who asked "Where's the other interviewer?" Somewhere in the process, communication had broken down and the assistant principal had scheduled all of the interviews one week early.

And then there was the school where the principal was trying to avoid being interviewed by the researchers. He had successfully evaded both researchers on the first day of the visit. This made the researchers

even more determined to corral him on the second day. Every time one of the researchers would approach him the second day, he would "grab" the first random person who walked by even though they were not on the interview schedule and "shove" them toward the researcher saying "here, talk with Mr. Smith (or Mrs. Jones); he (she) can tell you a lot of interesting things about how change takes place here." Finally, one researcher was able to catch the principal in his office and went in and immediately began interviewing him. Shortly, the second researcher came along, shut the door on the way into the office and joined in on what turned out to be a very pleasant and informative interview with the principal.

Another principal had another strategy for dealing with his two researchers. It seems every time they turned around he was shoving food toward them--a doughnut here, a brownie there, nuts and fruit, and now off to lunch. He apparently believed that "the way to a researcher's heart is through his stomach."

On the more serious side, researchers in one school found themselves caught in a somewhat uncomfortable debriefing/counseling session. At the conclusion of the visit to each school, researchers debriefed with the principal about the visit and their impressions of change in the school. This particular principal needed someone to talk to about the stress and pressure he was under and wanted to use the session for that purpose. The principal was "caught between a rock and a hard place" in that there were strong district directives mandating change and he had a faculty that was quite resistant to change. The debriefing session became an exercise in dealing with the principal's concerns with researchers trying to give suggestions and be supportive without misrepresenting their impressions of how things really were.

At another site, researchers were at the school on an early dismissal day (again to their surprise). The interview schedule which called for eight 50-minute interviews in the day had been adjusted so that all eight were scheduled prior to the 1:30 p.m. dismissal time! When the 1:30 bell rang, the interviews were completed, but both researchers emerged looking a little bleary-eyed and a little worse for the wear.

Researchers in another site also got a little surprise. Without consulting the researchers, and giving them almost no advance notice, the principal had ordered a catered lunch brought into her large office area and had invited the other administrators and department heads in to have lunch and for the researchers to discuss their work in general, the high school study and their impressions of the school.

During one of the winter visits, it snowed 12 inches the day and evening before data collection was to begin. The local contact person informed researchers that school was likely to be cancelled the following day if the snow continued. Researchers resigned themselves to riding out the storm, but were pleased to wake to clear skies and a full day of data collection.

Working With the Data

Researchers in this study were faced with an extremely difficult task--how do you answer four study questions from a data base of approximately 450 audio-taped interviews? One thing they knew for sure--in order to stay on top of the task it would be necessary to reduce and analyze data throughout the study. Several strategies were employed to do this including debriefing sessions, write-up packets, a set of site and cumulative notebooks, and an analysis session with outside consultants who have expertise related to high schools.

Debriefing Sessions

Two rounds of debriefing occurred around each study visit, and each session was tape recorded for later use. At the end of Day 1 data collection, researchers debriefed the day and shared their impressions thus far of the schools and the change dynamics occurring there. Researchers used this session to reality-check their impressions against each other's and to pinpoint areas that needed additional investigation or clarification the following day. (Secretaries when transcribing the tapes have noted irregular background sounds and suggested that the debriefing environment appeared to have been poorly selected.)

The second round of debriefing was conducted back at the Center and involved the total research staff. Data collectors described the district and the schools and shared their impressions of what they had found. Staff members were then able to ask questions and offer their insights based upon what they heard and their own experiences in other sites. After each additional visit, the staff would collectively focus on what was emerging from the data and reflect on what was being learned from the study of high schools. When it was deemed useful, the debriefing tapes were taken by a staff member who made summary notes of the highlights of the tape. The notes from these tapes were then compiled into a debriefing notebook.

The Write Up Packets

Each researcher, after each visit, used the interview tapes and his/her notes to complete a four-part write-up packet that was designed to address the four basic study questions. Part I of the packet asked the researcher to document the recent changes or innovations taking place in the school and to indicate whether they were districtwide, schoolwide, departmental or individual changes. Using a set of codes devised for the study, the

researcher coded what type of change it was, and when possible, coded the impetus, initiator, developer and facilitator of the change. This part of the packet addressed Study Question 1, types, sources and purposes of changes and Study Question 2, units of change.

Part II of the packet asked the researcher to document what he or she perceived to be some of the critical interventions that had influenced the change process in this school. The interventions linked backed to the innovations in Part I of the packet. Using codes from the intervention anatomy (Hord, Hall & Zigarmi, 1980), the researcher coded the level (incident, tactic or strategy) and the source target and function of the intervention (Hord & Hall, 1982). This part of the packet was designed to help answer part of Study Question 4, how is change managed.

Situational factors influencing change, Study Question 3, were addressed in Part III of the write-up packet. In this section the researcher was asked to descriptively write about 9 various factors such as the facility, the community, the co-curriculum, the district and to reflect upon the role of these factors in influencing change.

The final section of the write-up packet asked the researcher to write a two page report on the leadership and management of change in the school including the influence of the principal's style and how the principal and other important leaders function in the school. This section, along with Part II, of the write-up packet, was designed to address Study Question 4 about the management of change in high schools.

Tape Logging and Site Cumulate Notebooks

The total data set for the study consists of approximately 450 audio-tapes, 36 independent write-ups from researchers, a set of district and school demographic forms, and any additional information provided by the

district or schools in the study. A system for logging and storing the tapes by school and site number was developed and used to keep track of the data in its original form.

Three copies of each write-up packet and demographic forms were made. The copies went into three notebook sets. One set of notebooks consisted of a site notebook for each district which contained the district and school demographic forms and the write-ups of the four data collectors who worked in the site.

Another set of cumulative notebooks was used to organize the demographic data and the data from the write-up packets into individual sections. All the demographic forms are together in one section of the notebook, as are all the changes identified in the study, and so forth. This cumulative notebook has been very helpful to researchers as they try to organize data to answer each specific study question. A second set of cumulative notebooks is kept at home by one of the researchers to assure that the data would not be lost in the event of a fire at the Center or some other type of catastrophe.

The additional data provided by the district and schools included items such as master schedules, maps of the district or school, student newspapers, etc. The items were compiled into file folders and were kept along with the notebook sets for further reference.

Analysis Session With Consultants

In the spring of 1984, with two sites still to visit, the research staff participated in a two-day analysis session with four outside consultants who have expertise related to high schools. Two of the consultants were from public school settings -- one was a principal from one of the high schools included in the study and the other was a Central Office curriculum coordinator. Also, included in the group was a state department of education

person who had also been a high school principal and a university professor who has a national reputation for his work related to high schools. In the two-day work session, staff members described the data gathered in the study and shared their initial findings and impressions. Consultants provided their input and feedback on the analyses thus far and worked with the staff to plan the further analysis of the data. In addition, the consultants made recommendations related to the next phase of the study of change in high schools. It is now anticipated that Phase III of the high school study will be an intensive year long investigation of change in a small number of selected high schools.

What Has Been Learned About Methodology For Doing Research in High Schools

When the research staff reflects back to the time before the first early exploratory visits to high schools it is clear that from their experiences a great deal has been learned about how to do research in high schools. It is now clear to the project staff that high school personnel are open to having researchers in their schools. From the early visits to high schools researchers determined that a methodology primarily built around role-specific structured interviews was best for gathering the type of data needed in this phase of the study.

It was learned that even when making arrangements locally, it was best to do as much as possible over the telephone. When researchers had appointments with school administrators, they sometimes found themselves waiting more than an hour to see a principal that was tied up taking care of unforeseen occurrences that required his immediate attention. This in itself is an indication of the unpredictability of a high school principal's workday.

After several visits, it was discovered that the teachers who brought notes with them to the interviews seemed to be more comfortable and more comprehensive in what they had to say. As a result of this observation, focusing questions were added to the back of the study participant letter and interviewees were encouraged to make notes and bring them to the interview.

The initial experiences interviewing students led researchers to discover that interviews with small groups of students were more productive than interviews with individual students. It was later found that a mixed group of both male and female students also seemed to help break the ice that was sometimes there when a group of all boys or all girls faced an interviewer of the opposite sex.

Researchers learned that the sooner they tackled the data write-up packet the better and that taking a fairly comprehensive set of notes during the interviews also helped during the data reduction. In addition, the note taking seemed to be something that teachers expected the researcher to do even though the tape recorder was running.

It was learned that, as a general rule, school secretaries are very protective of their principals and that one way to break the ice with secretaries is to get them to talk about their families. Researchers also got fairly good at being able to identify what kinds of teachers could give the best recommendations for good restaurants in the area.

During the past two years, a great deal has been learned by this project about "how" to do research in high schools; certainly not all there is to know, but certainly a substantial amount. As for "what" has been learned about high schools and how school improvement occurs at the secondary level, the reader is invited to read Hall et. al. (1984) and the following four papers in this symposium set to learn what insight has been gained from the preliminary analyses of this descriptive study of a national sample of high schools.

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Appendix A

Teacher 1 Interview Questions

1. Tell me about what your day is like as a _____ teacher.
2. Do you sponsor a student activity or have involvement with the co-curriculum?
3. How does your department function (if not already discussed)? What is the role of the department head?
4. Where do you go to get help with instructional matters?
5. How is the school as a whole organized? How do decisions get made? What is the chain of command?
6. Who has the most influence on what happens in this school?
7. (If not already covered) Specifically, what role does the principal play?
8. What role does the central office play?
9. What changes have you been involved in during the past two years? Probe each change mentioned to determine: (Probe for individual, unit, and school wide innovations they have been involved in)
 - a. the purpose of the change
 - b. The source of development of the change--internal or external, who
 - c. Who initiated it
 - d. who (what group) did it involve (unit of change)
 - e. who is responsible for facilitating it
 - f. Ask for examples of things that person did to facilitate (interventions) Probe for critical incidents
 - g. was it monitored in any way
10. In general, what other changes do you know about in this school?
11. Do you see yourself more a part of the faculty as a whole, your department, or another group? Tell me about that group.
12. Is there anything else you can tell me about this school that would help me understand it better?
13. How often do you interact with the principal?

Leslie & Suzie
11/1/83
Revision

Assistant Principal for Instruction Interview Questions

1. Tell me something about the schools as a whole. How would you describe or characterize this school to other people? How would you describe the faculty and staff, community and students?
2. What is your role in the school?
3. How is that different from the principal?
4. Are there other on-site administrators? What do they do?
5. Do you work with department heads or teachers? In what ways?
6. Do you work with central office personnel? How and why?
7. Tell me about some specific changes that you have been involved with that have been implemented within the last 2 years? Probe for different units.

Probe each change mentioned to determine (select at least 3 major ones):

- a. The purpose of the change
 - b. the source of development of the change--internal or external, who
 - c. who initiated it
 - d. who (what group) did it involve (unit of change)
 - e. who is responsible for facilitating it
 - f. ask for examples of things that person did to facilitate-- interventions. Probe for critical incidents
 - g. was it monitored in any way
8. What is being emphasized or initiated in the school this year?
 9. When you think about the change efforts that you are or have been involved in, what factors have a positive and negative influence on them? (Probe for whichever wasn't mentioned) What was your role?
 - a. the co-curriculum
 - b. the community
 - c. the principal or central office
 - d. other teachers
 - e. professional organizations
 - f. the students

If no changes are mentioned, discuss influence of above factors in general.

10. Is there anything else you can tell me about this school that would help me understand it better?

Suzie & Leslie
11/1/83
Revision

Student Interview Questions

1. What are the strong points of this school? Where could it use some improvement?
2. What is being emphasized by teachers and administrators in the school this year? in other years?
3. Since you began here has the school gotten worse, better, stayed the same? Why do you think that?
4. Who has the most influence on what happens in the school (probe for different areas)? Why?
5. How does the co-curriculum affect the school? Probe athletic/music.
6. What effect do parents and others in the community have on what happens in the school? How?
7. How do students change things in the school?
8. What kind of changes have occurred in this school since you began here?
9. Is there anything else you can tell me about this school that would help me understand it better?

Department Head Interview Questions

Suzie & Leslie
3-1-84
Revision

1. What do you do as a department head (probe each: monitor teachers, budget, staffing, curriculum)? How are you appointed? What compensation do you receive?
2. Do you sponsor a student activity or have an involvement with the co-curriculum?
3. How do you work with other department heads, your teachers, the principal, other on site administrators, curriculum coordinators, and central office personnel? How often do you interact with the principal?
4. Where do you go for help with instructional matters?
5. Do all department heads in the school function basically the same or is there a great deal of difference in how they operate?
6. Are all departments treated equally or are some favored more? Do all receive similar support? Which departments have more influence?
7. Who has the most overall influence on what happens in the school? How do decisions get made?
8. What changes have you and/or your department been involved in during the past two years? What specifically was your role? Probe different units. Probe each change mentioned to determine:
 - a. the purpose for the change
 - b. the source of development of the change--internal or external
 - c. who initiated it
 - d. who (what group) did it involve (unit of change)
 - e. who is responsible for facilitating it
 - f. ask for examples of things that person did to facilitate (interventions) Probe for critical incidents
 - g. was it monitored in any way
9. Are there other units or groups in addition to those mentioned that are engaged in improvement efforts?
10. When you think about the change efforts that you are involved in, what factors have a positive and negative influence on them? (Ask for examples of each.) (Probe for whichever wasn't mentioned) What was your role?
 - a. the co-curriculum
 - b. the community
 - c. the principal or central office
 - d. other teachers
 - e. professional organizations
 - f. the students

If no changes are mentioned, discuss influence of above factors in general

11. Is there anything else you can tell me about this school that would help me understand it better?

Appendix B

9/26/83

SCHOOL DEMOGRAPHICS SHEET
for
High School Study

Ask for copy of organizational chart.

GENERAL SCHOOL QUESTIONS

1. How old is the school building? _____
2. The school year operates on a: _____ traditional 9-month calendar
_____ year-round calendar
3. How many teachers in the school are _____ full-time?
_____ --part-time?
4. How many teachers are:
_____ regular classroom teachers _____ "Specials" (list) _____
_____ other resource teachers _____ other (please specify): _____
5. For the past several years, what has been the annual teacher turnover rate? _____
6. How many paid teacher aides work in the school? _____
7. Do volunteers work in the school? _____ Yes _____ No
8. How many office staff work in the school? _____ full-time?
_____ --part time?
9. How often is a school newsletter/bulletin published?
_____ daily _____ weekly _____ monthly _____ each semester
_____ only at the beginning for the year _____ whenever needed
_____ never
10. How often are school-wide staff meetings held?
_____ daily _____ weekly _____ monthly _____ each semester
_____ whenever needed

SCHOOL DEMOGRAPHICS SHEET for
High School Study
Page Two

11. How often are department meetings held?

weekly monthly each quarter or semester
 whenever needed

12. Is there a Parent-Teacher Organization? Yes No

13. How often does it meet?

more than once a month once a month several times a year
 once a year

14. What is the average attendance at PTO meetings?

75-100% of the parents 50-74% of the parents
 25-49% of the parents 10-24% of the parents
 only a handful

STUDENTS

15. How many students are currently enrolled in the school? _____

16. What is the average daily student absenteeism for this school? _____

17. What is the range of number of students per class assigned to a teacher?

18. To what degree is student mobility a factor?

high mobility average mobility low mobility

19. Estimate the percentage of children in the school who come from families in each SES category; space is provided for further description, if necessary:

upper upper middle middle lower middle lower

20. What ethnic groups are represented in the school? (Give approximate percentages.)

White Black Hispanic Asian Other

(please list _____)

SCHOOL DEMOGRAPHICS SHEET for
High School Study
Page Three

21. Estimated percentage of the students that are not U.S. Citizens (immigrants, legal or illegal aliens, refugees)?

22. Indicate country of origin and approximate number of students from each category:

23. Describe any special attention or activities devoted to this special clientele within the school:

24. What percentage of the students are eligible for bilingual education? _____

25. What percentage of students continue their education beyond the high school level?

% _____ to 4 year college

% _____ to 2 year college

% _____ technical training

26. How many merit, scholar finalists has the school had in 1982-83 _____,
81-82 _____, 80-81 _____?

ADMINISTRATORS

27. How many years has the principal been a principal? _____

28. How many years has she/he been principal at this school? _____

29. Are there any administrators other than the principal?

_____ Yes _____ No

30. If so, how may? _____ What are their roles? _____

SCHOOL DEMOGRAPHICS SHEET for
High School Study
Page Four

BUDGETING

31. What is the average per pupil expenditure for the school for the
1982-1983 school year? _____

32. Does a set percentage of Revenue generated by the athletic program get
returned to the school? If so, what percent? _____%

Appendix C

Selection Criteria for School Personnel To Be Interviewed

The following lists the numbers and kinds of School Personnel we would like to interview in our study:

The Principal

The Assistant Principal in charge of Instruction

The Campus Administrator who has the most direct involvement with the co-curriculum (Student Activities Director)

4 Department Heads: two from the big four departments: Science, Math, English
Social Studies
preferably two departments that operate and function
substantially different from each other

one from another large department such as Business
one from a small department

6-8+ teachers: one each from the departments whose department heads are
included in the study (those described above)

two or more others randomly selected, some who have taught
elsewhere

9+ students: We would like to interview students in small groups of 3 or more
according to the following grouping: (these discussions could
be half-period discussions if necessary or desirable)

one group: including the student newspaper editorial staff who
would cover different departments on the newspaper

one group: including an outstanding musician, outstanding
athlete, and outstanding scholar

one group: random selection of upperclassmen (average achievers
who are not school "stars")

We would be interested in including some students who have
attended other schools and who might be able to discuss
differences between schools. We are not necessarily interested
in talking to elected student officials (student council, etc.)

1 School Athletic Coordinator

1 Music or Band Director

1 Counselor

1 Senior Administrative Assistant (Head School Secretary)

Two persons from Central Office:

1 Curriculum Coordinator who works with your school, and
The Administrator of Secondary Education

We would also like to include a tour of the school as a part of the study
visit.

We recognize that organizing this schedule represents a lot of coordination on the part of the school. The intent in talking to this diverse a group of people is to get as broad a picture of the school as possible. The focus of this study is on the process of change as it is occurring or has occurred in the past. We feel that different people within the school can reflect different parts of the process and different effects.

The following is a sample of a schedule for a high school having 8, 50-minute periods. The sample shows two researchers visiting the school for two days. This is only offered as an example. It is not intended to indicate that your staff should be scheduled in the same way.

period		Day 1		Day 2	
		researcher 1	researcher 2	researcher 1	researcher 2
1	8:00-8:50	both researchers meet with the Principal		Central ofc Secondary Ed Admin.	Assistant Principal Instruction
2	8:50-9:40	both continue with principal; tour school		Curriculum Coordinator	student group student group 25 min. each
3	9:40-10:30	Depart- ment Head	teacher	break student group 20 min.	Music Director/ Band
4	10:30-11:20	Athletic Director	Student Activities Director	teacher	teacher
5	11:20-12:10	open lunch	open lunch	counselor lunch	Department Head lunch
6	12:10-1:00	Depart- ment Head	teacher	teacher	teacher
7	1:00-1:50	teacher	Department Head	open	teacher
8	1:50-2:40	Head School Secretary	open	both researchers meet with the Principal for feedback	

The next page is a blank schedule form for you to use in planning time and personnel to be interviewed during the study visit.

**CHANGES IN HIGH SCHOOLS:
WHAT IS HAPPENING - WHAT IS WANTED**

**William L. Rutherford
Leslie Huling-Austin**

**Research and Development Center for Teacher Education
The University of Texas at Austin**

R&D Report No. 3184

**Paper presented at the annual meeting of the
American Educational Research Association
New Orleans, Louisiana
1984**

CHANGES IN HIGH SCHOOLS:
WHAT IS HAPPENING - WHAT IS WANTED^{1,2}

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Leslie Huling Austin

Research and Development Center for Teacher Education
University of Texas at Austin

Background and Purpose of the Research

Depending on where one begins and what one counts, it would be possible to identify twenty or more recent reports from national or state level committees or commissions that focus on the problems and needs of American high schools. No matter which reports are considered, the clarion call of each one is for action, for change, and for improvement in schools. To be sure, there is considerable variation in what the reports perceive the problems of the high schools to be and in the changes they propose. But, the reports are unanimous in their contention that high schools must change for the better. Many of the reports either imply or state outright that high schools have changed little in decades. This same sentiment is also expressed in the professional literature (Ducharme, 1982; Wood, John, and Poden, 1984). The inference drawn from these positions is that getting high schools to change will be a difficult task.

¹The research described herein was conducted under contract with the National Institute of Education. The opinions expressed are those of the authors and do not necessarily reflect the position or policy of the National Institute of Education. No endorsement by the National Institute of Education should be inferred.

²Paper presented at the annual meeting of the American Educational Research Association, New Orleans, April, 1984.

Are high schools really rigid and imperious to change? For more than a year researchers at the Research and Development Center for Teacher Education at the University of Texas have been studying change in American high schools. This research was planned to cover a range of schools and situations over a three year period. Phase I, conducted in 1982-83, was an exploratory effort in which researchers visited 11 selected schools to become familiar with the high school context and to pilot data collection methodologies and specific interview questions. The study is currently in Phase II, a descriptive investigation of a national sample of 18 schools dispersed across the nation and representing urban, suburban, rural and mid-size city schools. Phase III will be an intensive year-long investigation of the change process and how it is managed in a small number of selected high schools.

Four basic study questions related to change in high schools are the focus of Phase II of this study. They include:

- 1) What are the types, sources and purposes of changes in high schools?
- 2) What are the key units of change?
- 3) What are the key situational factors that influence the change process?
- 4) How is the change process managed in high schools?

This paper presents data from seventeen of the eighteen Phase II study schools for two of the study questions: What types of changes are occurring and what are the key units of change? Data were collected through approximately 28 hours of interviews in each school with students, faculty and administrators.³ Additionally, the kinds of changes being proposed in some of

³It is acknowledged that only a portion of the faculty, administrators and students of any school were interviewed. However, the cross-checking process used in the interviews convince the researchers that additional interviews would not have modified the patterns of change that were identified.

the major national and state commission reports were analyzed and compared with the changes that were discovered as being underway in the study schools. The reports that were considered for this aspect of the study are listed in the bibliography under Education Reports.

Figure 1 presents the coding system used to classify the recent and proposed changes into six categories and multiple subcategories. These categories and subcategories evolved from the data collected in this and other studies of change in schools (Hall, Hord, Huling, Rutherford and Stiegelbauer, 1983; Hall and Hord, 1984)..

Defining and Analyzing Changes

Defining Change

Arriving at a definition of change has been and continues to be a dilemma. The dilemma is in deciding which factors are critical and should be used in defining and/or distinguishing changes. A school makes a change in the math department head, they increase the eligibility standards for participation in extra-curricular activities, they add an advance placement course in English and the district introduces into all schools a program to improve the instructional skills of all teachers. A large number of Vietnamese students move into the area. These are all changes but obviously they differ in several ways.

These changes differ on at least the following factors: a) the person, persons or entity that is the target of the change, b) the number of persons influenced by it, c) the source or impetus of the change, d) the complexity of the change in terms of use, e) the difficulty of implementing it, f) the potential short term impact, and g) the potential long term impact. With these factors (and there are others) in mind, the question can be asked,

"Which of the four changes mentioned above should be included in the data set for this study and on what basis will the decision be made?"

Since the answer to that question has not yet been decided, the changes in the data set include any and all changes that were initiated during the last two years and that were reported by the study subjects. A task for the future is to design a technique for analyzing changes that will account for the differences in those changes in some meaningful way.

Analyzing Changes

At each site, the interviews were tape recorded so that it was possible to relisten to each tape and extract each and every change that was mentioned by the interviewees. At the end of the first of the two days of interviews, the two researchers working in a school would debrief each other, one purpose being to cross check the changes each one had identified and to clarify the details surrounding the change. If there was any doubt or confusion about a change, it would be checked further and clarified during the second day of interviewing.

After completing the interviews and returning to the R&D Center, the two researchers from each school would listen to their tapes and refer to notes taken during the two days to identify the changes mentioned. Once again, the two researchers cross checked with each other.

Once the reported changes were identified, they were coded for a variety of purposes. All of the purposes are described and discussed by Huling (1984). For this paper, the data were analyzed for two purposes, to determine the unit of change and to determine what kind or type of change it was. Each change was coded for kind using the coding scheme in Figure 1 and they were assigned to one of four units, individual, subunit, schoolwide or districtwide. More details on these units are presented below.

Researchers, for each school, first coded their changes independently and then their data sets were merged so that any change identified by both researchers was counted as only one change. After this was done, the data from the seventeen individual schools was combined into a single data set that forms the basis for this paper.

Findings

Recent Changes

A total of 380 changes had taken place or were in progress in the seventeen study schools for an average of 22.4 per school. The interviews with students, faculty, staff and administrators focused on changes occurring in the schools during the past two years so this number includes only recent changes. Changes intended to influence curriculum or instruction (33.4%) and changes classified as Administration/Organization (33.7%) represented about two-thirds of all the changes identified. Ranked third in number of changes was the category of Student Non-Academic Development (20.5%) These three categories include 87.6 percent of the total number of identified changes that had been recently introduced into the study schools. Only 6.3 percent of the changes were classified in the category of Professional/Personal Performance and changes in the categories of External Relations and School Facilities amounted to 6.1 percent of the total.

In several instances the differences within a category are as marked as the differences between categories. Within the Curriculum and Instruction category, changes related to a review or revision of the curriculum (100) accounted for approximately 70 per cent of the changes, while changes directed at procedures and processes for instruction (101) represented only 11 per cent of the category total. Many of the curriculum changes were related to the

introduction of computers into existing classes. This is being done most frequently in business classes and second most frequently in math courses. If a new and separate course in computer literacy was established, that was coded 11, but this had happened in only three of the seventeen schools. The introduction of the latest in office equipment in business classes also resulted in a number of curriculum changes to accommodate their use.

Instructional changes were most often related to new teaching approaches to accommodate special education students or efforts to improve teaching performance through the use of some system for monitoring and guiding teaching behavior such as the systems proposed by Madeline Hunter.

From these data in the Curriculum and Instruction category, several facts become clear. The number of curriculum changes (10C) was more than six times greater than changes directed at the improvement of teaching procedures (10I). The number of changes in this latter area (3.7%) is very similar to the number of changes (3.9%) intended to influence teacher professional performance (subcategory #30). Collectively, the number of changes made to directly influence the performance of teachers (10I and 30) represents less than 10 percent of the 380 changes identified.

In the category of Administration/Organization (21.9%) most of those changes involved matters of staffing and scheduling. Only three changes were of significant magnitude to be classified as organization reform⁴ (#44) and these were related to the conversion of a regular high school to a special high school serving only students bused in for a few hours each day and the transfer of the student body to other schools in the district.

⁴To be classified as an organizational reform, a change must represent a significant restructuring of the school as an organization as compared with a modification in the existing organization.

Changes in the third largest category, Student Non-Academic Development, were rather evenly distributed among the three subcategories. Changes to manage or control student behavior were usually either discipline policy or attendance policy changes. Special, short-term programs for students such as CPR or substance abuse were typical of the changes made to benefit student welfare/attitudes. There was no one pattern to the extra-curriculum changes, but there was widespread concern about minimizing disruptions in the school day caused by extra-curricular activities.

Unit of Change/Unit of Adoption

The changes identified in the study were divided into three classifications; schoolwide, subunits and individual. If a change involved all or most of the faculty of a school, the unit of change was schoolwide. When a change involved one faculty group within the school, such as a department or all teachers of honors courses, the unit of change was termed subunit. Individual units of change were those changes made by individual teachers in their own classrooms without involving other teachers. Of the 380 identified changes, 54.4 percent were schoolwide while subunits were the unit of change in 28.6 percent of the cases. An individual was the unit of change in 17 percent of the cases.

A fourth unit of change cuts across each of the other three units and that unit is districtwide. A change that involved all faculty in all schools in the district was both a districtwide and schoolwide change. For example, if all math departments within the district made the same change, then it was a districtwide and subunit change. Should each French teacher in every high school engage in the same change, then it is a districtwide and individual change.

The analysis of data is still underway, but one finding already seems apparent. It appears that more changes in individual schools have been initiated from outside the school than from within. Most frequently, the impetus for these changes appears to be the district office. These changes may be programs or processes district level personnel have developed themselves or it may be ones developed outside the district and then adopted by the district. This done, they then expect all schools to implement that change.

Findings relative to the units of change were a bit surprising to the researchers, for the literature on high schools and popular opinion among those who know high schools infers that the centers of authority and directions are the subject matter units or departments, and these departments are fairly autonomous. This perspective suggests that the primary unit of change would be the department. These data indicate this is not the case. Departments or similar subunits were the adopting unit of change in less than one-third of all changes with schoolwide and individual changes accounting for a combined total of more than two-thirds of the recent changes in high schools.

High School Changes Proposed By Commission Reports

It is clear that there is much change underway in American high schools but how do these changes compare with those being proposed in the commission reports that are receiving widespread attention? To answer this question nine national commission reports and a commission report from the state of Texas that have received significant attention in the literature and media were selected for analysis. (These reports are listed in the bibliography.) From the ten reports a total of 184 proposed changes were identified. These proposed changes were analyzed with the same analysis system applied to the

changes identified in the study high schools (Figure 1). Results from this analysis are presented in Figure 3 along with the data on recent changes in high schools that were provided in Figure 2.

More than 81 percent of the proposed changes fall within three categories. Professional/Personal Performance (32%), Administration/Organization (28.4%) and External Relations (21.2%). Among the other categories, Curriculum/Instruction had 16.8 per cent of the total and Student Non-Academic Development 1.6% per cent. No changes were proposed for School Facilities.

Subcategories within the categories provide insight into the specific kinds of changes that have been proposed. In the Professional/Personal Performance category, which was an area of much publicity in the commission reports, the majority of the proposals were for changes in the preparation and recruitment of teachers (#33). Most often these were directed at colleges and universities, but they also included cadet teacher programs in high schools and the recruitment of teachers in shortage areas from sources other than schools of education. Proposals related to merit pay, career ladders and other incentive programs for teachers were classified under subcategory #30 if they were linked to teacher performance or under subcategory #34 if they were for the purpose of retaining teachers without connection to specific performance requirements. Together, these categories account for only 9.3 percent of the total and some of those changes are related to teacher selection and performance. So in spite of all the talk about different plans for rewarding teachers, there are a limited number of specific proposals directed to that end.

Under the Administration/Organization category, the greatest number of changes are in subcategory 40 and most frequently relate to scheduling of courses within the curriculum sequence and the allocation of time during the

Figure 1

KINDS OF CHANGES IN HIGH SCHOOLS

Curriculum/Instruction (includes changes related to regularly scheduled curriculum or instruction)

- 10I influencing instruction procedures
- 10C review or revise curriculum
- 11. introduce new course
- 19. other

Student Non-Academic Development (includes changes in school sponsored activities that are not a part of regularly scheduled curriculum)

- 20. managing or controlling student behavior
- 21. influencing student welfare/attitudes
- 22. extra-curriculum
- 29. other

Professional/Personal Performance (includes changes directed at school personnel that influence their work in the high school)

- 30. influence teacher professional performance
- 31. influence administrator performance
- 32. influence teacher welfare and personal development
- 33. teacher preparation/recruitment
- 34. teacher selection, assignment and retention
- 39. other

Administration/Organization (administrative changes are those directed at the ongoing management of the school or district; organizational changes include significant restructuring of school as an organization)

- 40. staffing, scheduling, planning, etc.
- 41. influence operational efficiency
- 42. new guidelines/standards
- 43. change in contextual factors, i.e. enrollment, make-up of student population, finances
- 44. organization reform
- 49. other

School Facilities (includes changes in building, grounds, furnishings, etc.)

- 50. change for instruction
- 51. change for esthetics
- 59. other

External Relations (includes changes in ways in which the school relates to external groups apart from the school district)

- 60. public relations
- 61. communications
- 69. other

Figure 2
RECENT CHANGES IN HIGH SCHOOLS

Category	Recent Changes in High Schools	
	Raw Total	Percent of Total
Curriculum/Instruction		
10I. influencing instruction procedures	14	3.7
10C. review or revise curriculum	89	23.4
11. introduce new course	24	6.3
19. other	0	0
Subtotals	127	33.4
Student Non-Academic Development		
20. managing or controlling student behavior	30	7.9
21. influencing student welfare/attitudes	29	7.6
22. extra-curriculum	19	5.0
29. other	0	0
Subtotals	78	20.5
Professional/Personal Performance		
30. influence teacher professional performance	15	3.9
31. influence administrator performance	3	.8
32. influence teacher welfare and personal development	5	1.3
33. teacher preparation/recruitment	0	0
34. teacher selection, assignment and retention	0	0
39. other	1	.3
Subtotals	24	6.3
Administration/Organization		
40. staffing, scheduling, planning, etc.	83	21.9
41. influence operational efficiency	21	5.5
42. new guidelines/standards	10	2.5
43. change in contextual factors, i.e. enrollment, make-up of student population, finances	8	2.1
44. organization reform	4	.8
49. other	2	.8
Subtotals	128	33.7
School Facilities		
50. change for instruction	4	1.05
51. change for esthetics	4	1.05
59. other	1	.3
Subtotals	9	2.4
External Relations		
60. public relations	5	1.3
61. communications	9	2.4
69. other	14	3.7
Subtotals	28	7.4
Totals	300	100

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day. Proposals for changes in standards or guidelines (#42) made up 7.6 percent of the total. These are most frequently directed at graduation requirements or allocation of funds for special programs or groups of students. Of the total number of Administration/Organization changes proposed, 6.6 percent of them called for changes of significant magnitude to be classified as organization reform (#44). These include such changes as organizing schools into three major vertical units that would encompass all school grades and would limit the number of pupils per unit or the establishment of special learning academies for students who cannot learn in the regular program or a one track curriculum without electives.

Most of the proposed changes under External Relations are classified as Other (#69) because they represent a variety of suggestions about the kinds of relationships that should be established between schools and the federal and state governments and private business and industry.

Two final subcategories of note are 10C and 10I. Subcategory 10C shows that 11.4 percent of the proposed changes call for some type of curriculum change, but only 4.4 percent are directed at improving instruction.

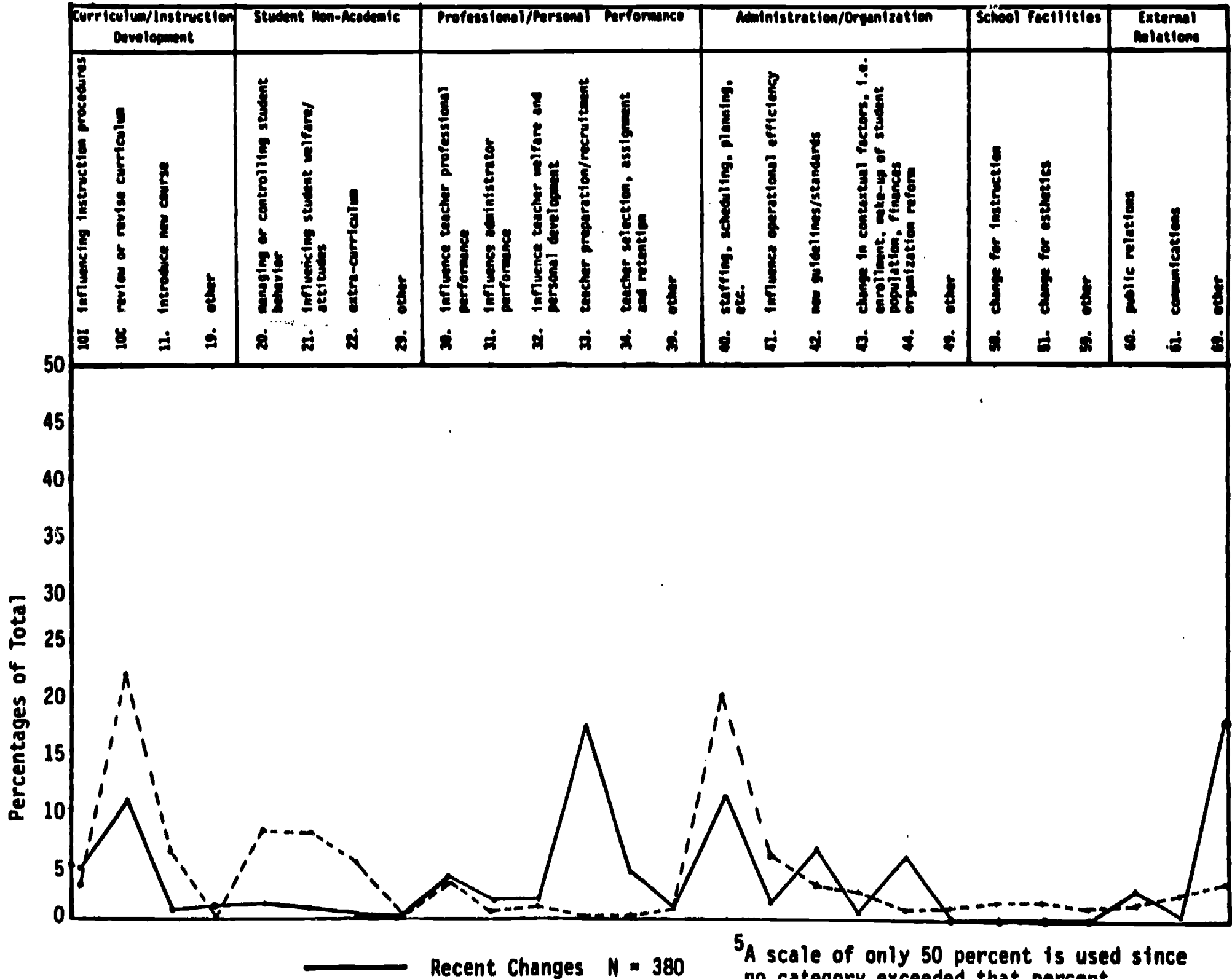
Comparing Changes Proposed and Changes Already Initiated

Numerical and graphic comparisons of recent changes in high schools and those being proposed are displayed in Figures 3 and 4, respectively. Recent changes in high schools are most numerous in two categories, one of them being Curriculum/Instruction (33.4%), but proposed changes in this area constitute only 16.8 percent of the total. However, both sources give much greater attention to changes in curriculum (10C) than to changes directed at influencing instructional procedures (10I). These data reflect a philosophy that has dominated education at least since the 1960's, that is, the way to improve education is to change the curriculum rather than changing the way teachers

Figure 3
PROPOSED AND RECENT CHANGES IN HIGH SCHOOLS

Category	Proposed Changes in High Schools		Recent Changes in High Schools	
	Raw Total	Percent of Total	Raw Total	Percent of Total
Curriculum/Instruction				
101. influencing instruction procedures	8	4.4	14	3.7
10C. review or revise curriculum	21	11.4	89	23.4
11. introduce new course	1	.5	24	6.3
19. other	1	.5	0	0
Subtotals	31	16.8	127	33.4
Student Non-Academic Development				
20. managing or controlling student behavior	2	1.1	30	7.9
21. influencing student welfare/attitudes	1	.5	29	7.6
22. extra-curriculum	0	0	19	5.0
29. other	0	0	0	0
Subtotals	3	1.6	78	20.6
Professional/Personal Performance				
30. influence teacher professional performance	8	4.4	15	3.9
31. influence administrator performance	5	2.7	3	.8
32. influence teacher welfare and personal development	3	1.6	5	1.3
33. teacher preparation/recruitment	23	17.9	0	0
34. teacher selection, assignment and retention	9	4.9	0	0
39. other	1	.5	1	.3
Subtotals	59	32.0	24	6.3
Administration/Organization				
40. staffing, scheduling, planning, etc.	22	12.0	83	21.9
41. influence operational efficiency	4	2.2	21	5.5
42. new guidelines/standards	14	7.6	10	2.6
43. change in contextual factors, i.e. enrollment, make-up of student population, finances	0	0	8	2.1
44. organization reform	12	6.6	4	.8
49. other	0	0	2	.8
Subtotals	52	28.4	128	33.7
School Facilities				
50. change for instruction	0	0	4	1.05
51. change for esthetics	0	0	4	1.05
59. other	0	0	1	.3
Subtotals	0	0	9	2.4
External Relations				
60. public relations	6	3.2	5	1.3
61. communications	0	0	9	2.4
69. other	23	18.0	14	3.7
Subtotals	29	21.2	28	7.4
Totals	184	100	380	100

Figure 4
Graphic Comparison of Recent and Proposed Changes⁵



⁵ A scale of only 50 percent is used since no category exceeded that percent.

teach. It should be noted that a number of the recent changes in schools relate to increased or anticipated increases in graduation requirements or to the introduction of new technology.

Proposed changes for the purpose of Student Non-Academic Development represents less than 2 percent of the total, while actual school changes in this area constitute 20.5 percent of the total. Schools seem to feel that if they are going to increase academic achievement they must have students in school and with behavior appropriate for learning, thus they are establishing programs and procedures to accomplish this. These include stricter policies regarding school attendance, tardiness and student behavior. In many of the study schools, steps were being taken to minimize the interruptions in the academic day caused by extra curriculum activities in response to the increasing criticism of those activities.

Professional/Personal Performance is the target of far more proposed changes (32%) than actual changes (6.3%). However, a careful look at the two data sets reveal they are not as different as may seem. More than one-half of the proposed changes have to do with the recruitment and training of prospective teachers. Apparently, high schools do not see this as being within their scope of responsibilities, so they have made no changes in this area. However, the two sources differed very little with regard to changes intended to influence Teacher Professional Performance (#30) and Administrator Performance (#31). The relatively small number of proposed or actual changes to influence teacher professional development is consonant with the figures for subcategory 10I, influencing instructional procedures. The two categories combined represent less than 10 percent of the total for both recent and proposed changes. In both the proposed and recent changes, curriculum certainly receives more attention than teachers and teaching. Given the

number of recent studies that have shown clearly the importance of the school administrator in school improvement, it is disappointing to note how few changes, proposed (2.7%) or actual (.8%), are directed to improving administrator's performance.

In the Administration/Organization category, the greatest number of proposed and actual changes was directed at the traditional administrative tasks of staffing, scheduling and planning, almost always in relation to curriculum offerings. The number of changes schools have made that are large enough to be considered reforms, (as opposed to shifts in the traditional) were only 3 and all 3 of these came from one district where major reductions in the student population made it necessary to take significant actions to cope with the problem. From these data, it can be inferred that major reforms in high schools are not likely to be initiated at school or district level. Perhaps the risks are just too great for administrators to take. On the other hand, only 6.6 percent of the proposed changes called for some type of reform in schools. Perhaps high schools are not in need of reform, or they are impervious to reform, or perhaps those who have proposed changes are so linked with high schools they cannot conceive of how they might really be different.

Changes in the School Facilities category were apparently of no concern to the various commissions and received only minor attention from the schools themselves.

In the category of External Relations there is a large difference in the proposed changes (21.2%) and actual changes (3.7%). This difference is due to the large number of recommendations made for how the federal and state governments and private business and industry should come to the aid of schools.

The proposed changes reflect a growing sentiment that schools must have increased support if they are to make the improvements desired.

Reflections on the Findings

Are high schools changing? Yes and no. If one is asking whether there are massive reforms underway that drastically affect the processes and activities that occur in high schools or in the purposes that high schools are expected to fulfill, then the answer is "no". Major changes in the structure or organization of high schools are not being made nor are their substantive changes in the processes of schooling. They are not making these kinds of changes. However, if one is asking if high schools are sensitive to and responding to local, regional and nationally highlighted problems, such as falling achievement test scores, the answer is "yes". The seventeen schools that compared the data base for this paper averaged 22.4 changes per school during the past two years. A majority of these changes were directed specifically at the improvement of student achievement. But, many others were made in response to contemporary demands on schools for things such as computer literacy, knowledge of the latest in business machines, drug awareness, responsibility in parenting and maximum educational opportunities for special education students.

Clearly, are not now involved in major reforms. But neither are high schools Asleep at the Wheel (Hall, Hord, Rutherford & Huling, 1984). They are aware of the problems of national concern addressed in the commission reports and are making efforts to respond to those problems. At the same time, they are attempting to respond to the many other contemporary problems of society that are continually brought to them for a solution. In this sense, high schools are amazingly responsive; perhaps even too responsive. As one researcher noted when working with the study data, "From the looks of all of

the changes going on, it appears that high schools will try to implement almost anything."

What is particularly interesting is that, for the most part, the recommendations from the national and state reports do not call for major educational reform. Rather, the recommendations are for adjustments in the existing organization, processes of schooling, and purposes of the high school. Recommendations to lengthen the school day or school year, or change the number of preparations per day teachers will make, or to increase graduation requirements are hardly earthshaking. Recommendations for developing schools within schools, or organizing education into three levels or refusing students entrance into high school, regardless of age, until they master basic educational requirements, or establishing a single track curriculum might be considered reforms, for they might significantly alter the organization and process of education. However, even these suggestions presuppose that schooling in high schools will take place in classrooms located in buildings called schools, staffed by traditional teachers and administrators, with students expected to be physically present for certain hours of the day for so many days of the year. Even those few recommendations that call for different ways of teaching and different ways of learning see this happening within the traditional school setting. A possible exception to this sameness might be found in some of the recommendations made by Sizer in Horace's Compromise. The personalization of education as emphasized in that report would require great flexibility in the scheduling of a high school day and the duration of a student's high career.

It is difficult to know exactly how much change is being recommended in the actual purposes of high schools. Of the four purposes high schools are historically assumed to fulfill; custodial, socialization, knowledge

dissemination and preparation for work, the latter two are receiving the most attention at this time. The emphasis on a return to the basics accentuates the knowledge dissemination purpose of schools. On the other hand, there is considerable concern expressed in some of the reports regarding the role and value of vocational education, that aspect of schooling related most directly to preparation for work. Whether this suggests that schools should not prepare students for work or whether it means other ways of preparing students for work are more desirable is not clear. Proposals to lengthen school days and school years will increase the custodial responsibilities of schools so it is apparent that purpose remains unchanged. Very little is stated or implied in the various reports about the socialization function of schooling, so it can be assumed that this purpose of schooling will continue.

When the current pattern of changes in high schools is considered along with the changes proposed in the commission reports several trends for change during the next decade becomes evident. The curriculum in high schools will give increased emphasis to educational technology, to the core academic subjects and to gifted learners. Receiving decreased emphasis will be extracurricular activities and the more traditional vocational training programs. At the same time there is no evidence that there will be any real changes in high schools in terms of organization, functions, staffing and the basic processes of schooling. This means that high schools will change in the years ahead but they will not be reformed. However, because change is not readily visible to outside observers, in ten or so years there is sure to be an article written in which the author looks back over the previous decade and proclaims that in spite of the fervor over the commission reports high schools remain virtually unchanged.

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**COMMUNITY, CONTEXT, AND CO-CURRICULUM:
SITUATIONAL FACTORS INFLUENCING SCHOOL IMPROVEMENTS
IN A STUDY OF HIGH SCHOOLS**

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R&D Report No. 3186

**Paper presented at the annual meeting of the
American Educational Research Association
New Orleans, Louisiana
1984**

COMMUNITY, CONTEXT, AND CO-CURRICULUM: SITUATIONAL
FACTORS INFLUENCING SCHOOL
IMPROVEMENTS IN A STUDY OF HIGH SCHOOLS^{1,2}

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Change in any school situation does not occur in a vacuum. Much of the literature attempting to address the nature of the high school has characterized it in terms of its social and developmental function for students in their transition to adulthood. In this sense, the high school has not "changed" from the "old days". High schools are often still the last chance for students to learn the social and informational skills necessary for them to be a part of the greater society.

Yet current national re-emphasis on achievement and academic development has raised the question of how, or if, high schools are making the changes necessary to meet the needs of students and society today. Popular mythology has portrayed the high school as an archaic, overgrown educational system caught up in the structures of the past. A view of the kinds of changes occurring in the high school and the ways that various high schools have responded to internal and external changes made in an effort to balance out student needs and other influencing factors is important to a better

¹The research described herein was conducted under contract with the National Institute of Education. The opinions expressed are those of the authors and do not necessarily reflect the position or policy of the National Institute of Education. No endorsement by the National Institute of Education should be inferred.

²Paper presented at the annual meeting of the American Educational Research Association, New Orleans, April, 1984.

understanding of the change process as a whole, as well as the impact such factors can have on that process.

Background on a Study of Change in High Schools

The nature of the changes occurring in the high school and the factors influencing the change process in different high schools across the nation, has been the focus of research being conducted by the Research and Development Center for Teacher Education, Research and Improvement Process Program (RIP). The study describes the types of changes occurring in the sample high schools, the units of change -- individual, departmental, schoolwide, district, or larger -- the management of change efforts, and the key situational factors influencing these efforts. Rather than starting from a pre-conceived notion of what the high school is or should be, the RIP High School Study is based on descriptive data of change as it occurs in a high school. Each high school visited represents a unique set of information.

The RIP Project's Study of change in high schools was planned to cover a range of schools and situations over a three year period. Phase I, conducted in 1982-83, was an exploratory effort in which researchers visited 11 selected schools to become familiar with the high school context and to pilot data collection methodologies and specific interview questions. Phase II, conducted during the 1983-84 school year, is a descriptive investigation of selected high schools in nine districts geographically dispersed across the nation, including two schools in each district (n=18). These nine sites include a range of community types including urban, suburban, mid-size city, and rural. The size of the high schools visited varied with the nature of the community type. Phase III, 1984-85, will be an intensive year-long investigation of the change process; and how it is managed in a small number of selected high schools.

Within each district site, the two schools were visited by two researchers for two days each. The schools were selected by the Central Office person(s) who served as the district contact. One school chosen was that judged by the district to be the most changing in the district (as much as possible with value being put on the word 'changing'), while the other is a school that is typical of high schools in the district. During the two day visit to the school, researchers assigned there worked together and independently to interview a wide array of persons at the school using role specific interviews. These included the principal, assistant principal for instruction, department heads, teachers, students, activities coordinators, and other both in the school and the central office. Approximately 25 interviews were conducted in each school. In addition, demographic information was collected about each school and district.

The role specific interviews used to collect data were designed to reflect the four main study questions and subquestions (Figure 1). At the conclusion of each visit, each researcher completed a four part data reduction write-up packet. The sections in the packet correlate with the four basic study questions, providing a means to focus the information obtained through interviews and observations for further data analysis. This procedure allows for documentation of the different perspectives of the two researchers about the school. In addition to the write-up packet, taped debriefing sessions were held between researchers at a school and the four researchers comprising the research team at the site (two schools at each site, two researchers at each school). Highlights of these discussions were transcribed and are a part of the data base for analysis. For more information about methodology, both as used in the schools and for analysis, see "Collecting Data in High Schools: Methods and Madness" by Leslie Huling (1984), a paper included in this symposium.

Figure 1

Research Questions for High School Study

Major Study Question: How does change occur in high school settings?

1. What are the types, sources, and purposes of changes in high schools?
 - A. What kinds and sizes of changes have been implemented recently?
 - B. Within each school, how many changes are underway at this time (1983-84 school year)?
 - C. What were the reasons for the changes?
 - D. Were changes developed more frequently by internal or external sources?
 - E. Who was the impetus for implementing change?
2. What are the key units of change?
 - A. Under what conditions do teachers individually make changes?
 - B. To what extent does the academic department function as a unit of change?
 - C. Under what conditions do school wide changes occur?
 - D. What other groupings are involved in change, e.g. grade levels, subgroups of teachers, etc?
3. What are the key situational factors that influence the change process?
 - A. In what ways does the cocurriculum affect change?
 - B. How do community values and other contextual factors influence the improvement process in high schools?
 - C. In what ways do students influence the change process?
 - D. What are the affects of external agencies on high school change?
4. How is the change process managed in high schools?
 - A. What do school administrators do to facilitate change?
 - B. What do department heads do?
 - C. How does the individual teacher affect and respond to improvement efforts?
 - D. Are there significant others involved in managing change? If so, who are they and what do they do?
 - E. What are some of the different configurations of leadership for change?
 - F. How is change planned for and monitored?

This paper describes the situational factors (question 3 of the study questions) viewed by the research staff in the high school study. It also presents some examples of how these factors vary in their influence in different situations. Some factors were found by researchers to have more characteristic influence across cases than others; others varied more across sites. In every case, however, factors such as the nature of the change itself and its management by school leaders were found to be important to the total picture. The paper concludes with a preliminary analysis of the relation of different situational influences to the effectiveness of change efforts.

What are situational factors?

Question 3 of the main study questions asks: "What are the key situational factors that influence the change process?". For the purposes of the High School Study, situational factors were defined as those conditions or changes in conditions that are a potential stimulus for or influence on change in the school. The use of a concept of situational factors and their influence as a part of the High School Study stems from an investigation of the nature and role of "context" included as a part of the planning and design for the Principal-Teacher Interaction Study (PTI), conducted by the RIP project over the years 1979-1982 (Hall, et al, 1982). The question of context and its effects has presented a dilemma for research in education. While the fact that it has effect cannot be denied, its variability over different situations has made context largely unmeasurable and unpredictable. In reviewing what context might consist of, and in delimiting variables that compose it, research staff hoped to begin to see its influence at least in terms of study questions.

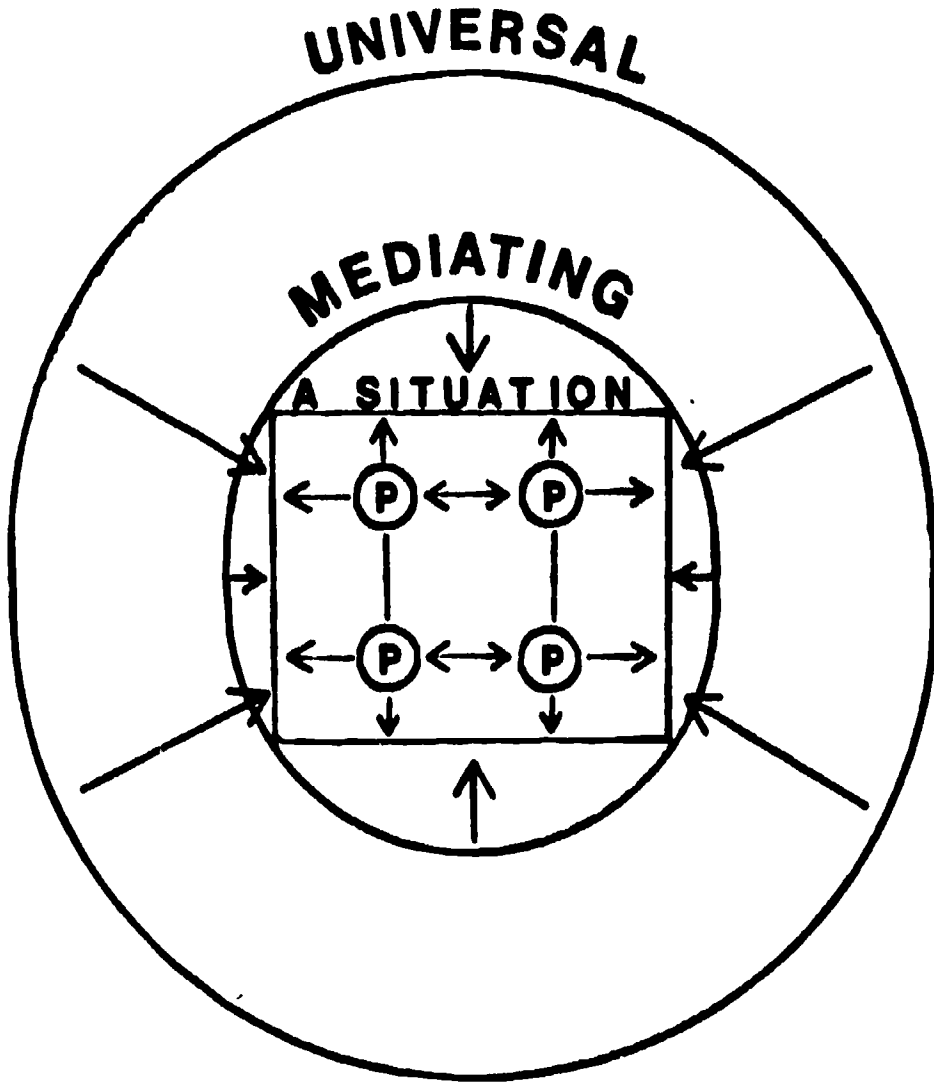
Overall, context could be described as the universe of variables and factors that can influence a change effort. It encompasses things, people, and environments and their interactions and influences on each other. In its

absolute, it encompasses the world. For a particular context or working situation, it can be narrowed by a selection of variables judged to have an effect on selected outcomes. To begin doing this, RIP staff distinguished three types, or layers, of context that may be relevant to a change effort. The first, the universal, represents the world at large that is in any way a part of an organization or user system. The second, called the mediating context, is a subset of the universal system that more directly influences organization or user system behavior. The third, personal context, includes roles and individual life space characteristics (internal memo 9/18/80). All of these interact to a lesser or greater degree to influence a situation or create a particular context (Figure 2).

For the PTI study, it was decided to look at those context variables that would be a part of the mediating context. As the focus of that study was on change facilitation, principal style, and implementation strategies and effects, researchers were interested in those factors that would affect principal and teacher performance and the change effort directly. At that time, they were not as interested in the more general ways the total context might influence the total school. Context questions were included in teacher and principal interviews. These questions asked teachers and principals about factors that influenced them in their use of the innovation, in their role as teacher or administrator, as well as factors that made the school different this year from last. A school climate measure, called the "School Ecology Survey" was also designed for the PTI study in order to get a sense of teachers more general perceptions and attitudes to the school as a whole (Hall and Griffin, 1982).

Investigation of situational variables or factors, and context also stems from the work of James and Jones on organizational climate (1974) and psycho-

Figure 2



logical climate (1979). "Organizational climate refers to organizational attributes, main effects, or stimuli, while psychological climate refers to individual attributes, namely the intervening psychological process whereby the individual translates the interaction between perceived organizational attributes and individual characteristics into a set of expectancies, attitudes, behaviors, etc." (James and Jones, 1974). Organizational climate is loosely what research staff have called context, while psychological climate is the situation or context as it is interpreted in psychological terms. James and Jones' work also included a listing of situational variables that they saw as a part of organizational climate (1974, see Figure 3). From this list of variables, research staff began to construct a list of situational factors that they saw as relevant to what they wanted to know about implementation and change leadership in the PTI study.

The High School Study differs from the Principal-Teacher Interaction Study in that it is a more general, descriptive look at changes occurring at the high school level, how those changes are managed and what factors influence them. As a result the situational factors included as a part of data collection give a sense of the more total context for each school. School participants were asked to generally describe the school and influences on it. Certain participants, selected on a random basis, were asked to describe the influence of specific factors nominated out of context factors used in prior work such as the community, the co-curriculum, etc. on changes occurring in the school. In asking school participants about the impact of each factor separately, research staff attempted to get a picture of how different factors influenced change in different ways. Demographic sheets were collected from each school and included information on resources available to the school, teacher turnover, ethnicity, and student characteristics.

Figure 3
Situation Variables

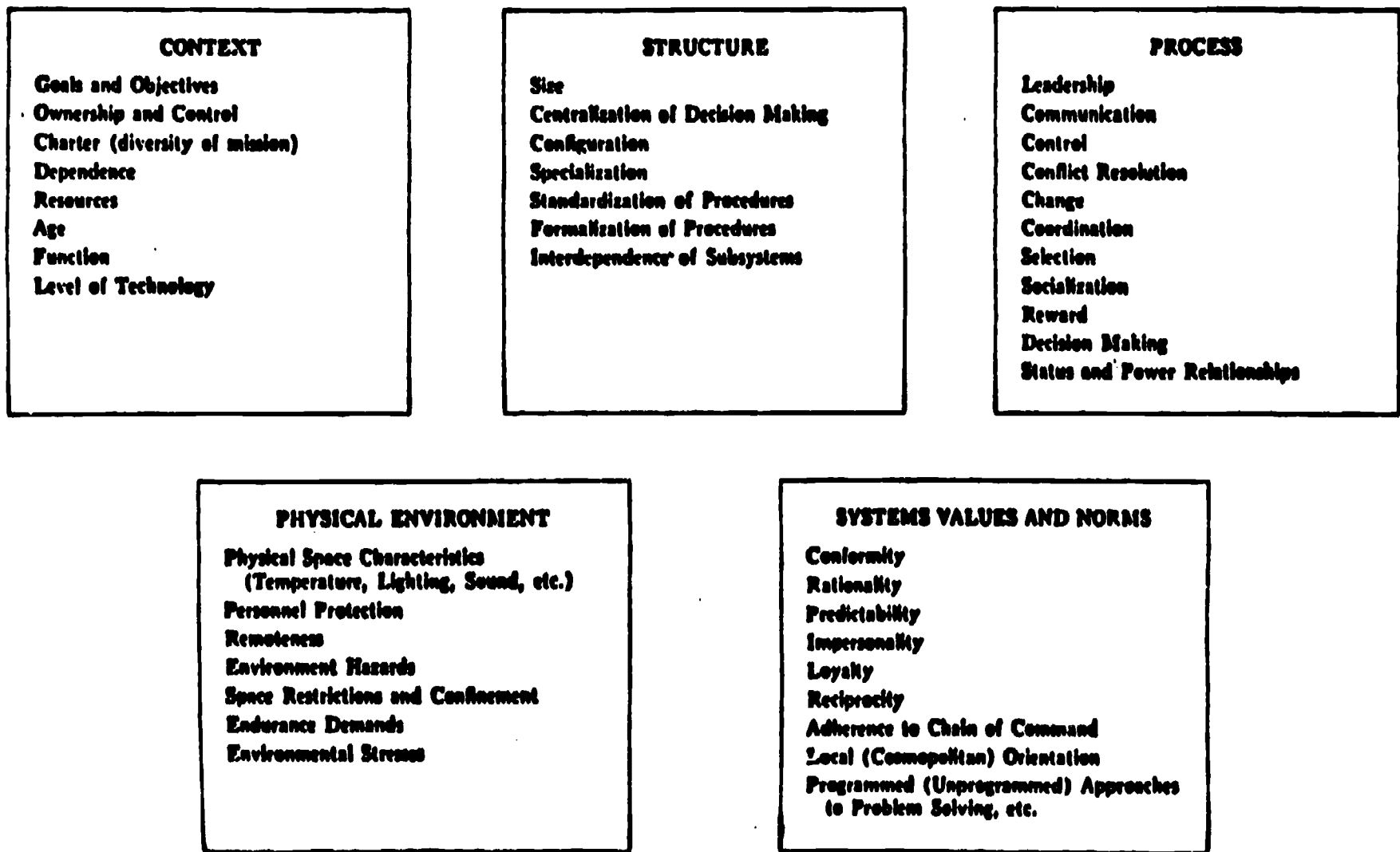


FIGURE 1. Components of situational variance in the total organization, major subsystems, and / . . . & groups.

From: James, L. R. & Jones, A. P. Organizational climate: A review of theory and research. Psychological Bulletin, 1974, 81(12), 1096-1112.

After a visit to a high school site, researchers at the school were called upon to write a description of situational factors listed for the study and their role in change as they saw it from their interviews and observations at the school. The first part of analyzing each factor was to simply describe what is at the school site, in terms of that factor. The second part was to describe what they saw as the influence of that factor, if any, on change in the school. The factors listed for data analysis are shown in Figure 4. The goal of this approach was to allow researchers to see the influence of each factor in isolation at an individual site and comparatively across sites. Isolation of factors from the total context allowed researchers to see if their influence was similar or different from site to site.

The end result of the data analysis write-up is a descriptive account of the school context as it relates to change and factors in that context that are influential in some way to the change process. This, in combination with other sections of the write-up packet -- the management of change and types and kinds of changes occurring -- present a case study outline of the change process at each school and influences on that process.

Some Examples of Situational Factors

As mentioned above, researchers wrote both a description of the situational factor as it was in each school setting and a description of its role or influence on change in that setting. The following is a sample of two of those situational factor descriptions. A whole school analysis write-up would include each factor shown in Figure 4.

SITUATIONAL FACTORS VIEWED IN THE HIGH SCHOOL STUDY

FACILITY (School plant and resources)

STUDENT BODY

FACULTY

DEPARTMENT HEADS

ADMINISTRATION

(Principal, Vice principals, Deans, Secretaries)

CO-CURRICULUM/EXTRA-CURRICULUM

DISTRICT

COMMUNITY

OTHER FACTORS

For each factor researchers wrote a:

GENERAL DESCRIPTION

**DESCRIPTION OF THE ROLE IN CHANGE
OR INFLUENCE ON CHANGE**

also considered:

DEMOGRAPHIC CHARACTERISTICS

Co-Curriculum/Extra-Curriculum

GENERAL DESCRIPTION: Major source of school pride is the school band which has gotten more attention than any athletic activity. Teachers feel extra-curricular and student activities let students know about other parts of the world, especially as majority are not academics. Extra curricular is being affected by academics - new academic requirement where athletes could not get an F and play - now have strictest athletic code in district. One-third to one-fourth of students in school involved in athletics. Athletics has different budget from PE.

ROLE IN CHANGE: No strong influence. Necessary outlet for many kids here who are not academics.

Other Factors

GENERAL DESCRIPTION: 1) School day is from 8:30 to 2:03 with no lunch. 2) Budget is allotted from the district for specific things. All the money is designated. Athletic event funds do come back into the school but go to replacing equipment. 3) Staff does not know each other. Communication hierarchical. 4) Little reinforcement to academic achievement. 5) Students feel that their reputation as a 'trouble school' is being held against them -- they can do more.

ROLE IN CHANGE: (As relates to numbering above.) 1) No time to plan or organize things. 2) No extra money to play with. 3) Reduces spontaneity, problem solving, coordination. 4) Negative attitude to what students can do.

Situational Factors at Two School Sites: A Comparative Case Study

While a view of each situational factor separate from the whole allows researchers to see its influence (or non-influence) on changes occurring in the school, it is often the interaction of factors that creates a context that is supportive, or non-supportive to change. In the following case study descriptions the situational factors varying in each school are community, district involvement in change, teachers, and principal/administrative management of change. The factors of students, co-curriculum, and facility had little major effect on change in these schools. Department heads played a role in providing a means to enhance communication between district or school administration and the staff within their own department, or as a part of the teacher group as a whole.

School A:

This school was opened in 1958 in a community that was largely middle class and lower middle class, a mix of Hispanics and whites. Parental involvement in the school has never been strong. Both parents often work. As a result, academic achievement is not a high priority with students or parents and drugs and alcohol are occasionally problems. Student - family mobility is also high. This has never been a high achieving school, only 10-15% of the students go on to a four year college, others go on to two year colleges. The total post high school education includes only about half the student body. Recent years have seen an increase in other ethnicities with limited English. Parental involvement in the school is minimal. The parent-teacher organization is inactive. The principal did make some attempt to communicate with parents by mail.

The principal himself had been at the school four years. During this time, the district has been initiating many changes without allowing time for facilitation and implementation. District staff have been streamlined, placing the responsibility for implementation on principals and selected groups of teachers. The School Board now has in general been supportive. Most teachers have been at the school since it opened in 1961 and/or have been in the system for 20 years or longer. Teachers are also older on the average. Teacher morale was very low before the change in the School Board but is now improved. Class size is often very large.

The major changes in the school are those aimed at improving academic achievement in the district and those concerned with the language and learning needs of a changing ethnic population. The role of the administration used to be discipline and coordination, but is now focused on administrative issues such as funding, attendance, reports and paperwork. Teachers tend to resist change though they are not uncooperative. As many of them are nearing retirement, and as they have seen many changes go by over the last few years, they see no reason to overly involve themselves. They do feel that the administration is under a lot of pressure from the district to make change occur, but say that from a sympathetic distance.

The principal appears to be caught between district expectations and the response of his school and teacher group. He is attempting to repond to pressures from central office, parents, teachers, and students equally. As a result, he is experiencing a great deal of stress. Meanwhile, due to the constraints of the funding cuts in the past and the priorities within the district, the school's schedule has been cut down to a six period day, the various career and vocational programs that would be of relevance to the majority of students have been cut back and are no longer being offered, the faculty are older and resistant to change, and the number of students to whom English is a second language is increasing.

This does not mean that positive changes are not occurring. District initiation of an inservice program for teachers has resulted in at least partial implementation of a number of innovations, including writing across curriculums, and an SAT preparation program. These were implemented through the resourcefulness and acceptance by other teachers of the teachers selected as turn-key trainers for districtwide programs. There seemed to be a subtle power play between the principal's office representing district demands and authority and the teacher group as the long-standing home team. The principal, however, had no overall plan as to how they might be resolved.

School B:

This school opened in 1949 to serve a primarily rural community on the edge of a large metropolitan area. The school was expanded in 1970 and again in 1983 as the community developed into a bedroom community for the metropolitan area and then a major suburb. Presently, the community consists of middle class and upper middle class Anglo professional families. This suburban area is developing at such a rate that student mobility is high - the school is adding almost 200 students yearly. One administrator described the change occurring over Christmas break: fifty students were added, but 48 were lost due to parents moving to another part of the country or being transferred. Parental support is average, though the principal and the district has made a directed effort to inform and involve parents. Academic achievement is neither high nor low, though due to the professional background of parents, there is great support for academics. Student attitude to school is positive despite the constant change in school population. The students interviewed seemed to find the change in population stimulating and accept it as a reality or even a norm for the school. There appeared to be few major problems with students despite high mobility.

The school has seen a series of principals over the last ten years. The present principal has been at the school for two years. There are three assistant principals. The principal has a steering committee of department heads and administrators and an advisory committee of students and selected teachers on a rotating basis. The principal's general approach is one of participatory management. Decisions are made by him after soliciting opinions and through discussion with these groups. The district has gone through a period of streamlining central office personnel and embarking on a policy of school based management whereby individual principals and staff members are encouraged to study and propose ways to better their individual schools based on the particular needs of those schools and district goals. The principal's approach is consistent with this directive.

As district growth has been recent, many of the teachers at the school are relatively new to the district and have been selected because of their high personal and professional credentials. New teachers are expected to have a master's degree and five years teaching experience or the equivalent. Teachers are grouped into departments. There is minimal communication across departments except that which occurs in department head meetings. Department heads are responsible for communication of school and district decisions to their staff, budget and supplies, instructional supervision and aid to staff, and teacher evaluation along with administration. The department head is a formal position in the district. Teachers generally feel in control of their classes and able to make decisions about their teaching. They also feel part of the department and school "team". What misunderstandings or problems were expressed by teachers related to the fact that at times when precedent had been set for their opinions to be listened to, decisions had been made in opposition to those opinions. On the whole, however, they were supportive of those decisions.

The major changes occurring in the school relate to the needs of consistent population growth in the school, district streamlining and emphasis on school based management, and new state requirements. Given the principal's personal approach to leadership, it is difficult to assess the degree of

district pressure for communication and participation within the school and with parents from what the principal might do of his own accord. At the moment, they are in agreement. Despite the pressures of population change and growth, the support of parents and the consensus of students in appreciation of academics is resulting in the school's ability to maintain academic standards. Those teachers and department heads who have been at the school longer than five years are interested in maintaining some consistency in staff and are willing to work with administration to mediate the potential chaos of new students and staff. They wanted this principal to stay at the school. The school, as a whole, is committed to the rationale of working together as a team for the betterment of all.

Discussion

The major situational factors varying in these two schools are 1) community, 2) teachers, 3) administrators and administrative approach, and 4) district and district involvement in the school. The factors of facility, students, co-curriculum, and student body were not as important to the dynamics of change occurring in the school. It might be argued that the characteristics of the student body were more of a factor. However, this was a given more than an ongoing influence. In both cases, the schools were located in districts of approximately the same size. Figure 5 illustrates some of the differences between the schools in terms of the influence of situational factors.

In School A, change centered around district programs essentially external to the school. Ownership of these programs was encouraged by the district through the selection of teachers from the school to act as turnkey trainers with other staff. The district also held principals responsible for the implementation of these programs in the school. Teacher inertia, age, and resistance to change made this situation a difficult one. Some teachers would involve themselves in programs they saw as beneficial, but considered the choice theirs. The principal's inability to establish a sense of school priority, or school consensus, resulted in frustration for all. The lack of support from the community and problems related to a changing ethnicity meant

Figure 5

CASE STUDY EXAMPLE

SITUATIONAL FACTORS INFLUENCE ON CHANGE	SCHOOL A	SCHOOL B
FACILITY	• NONE	• LITTLE-INFLUENCE • ACCOMMODATE • GROWING POPULATION
STUDENT BODY	• CHANGING • ETHNICITY	• INCREASING NUMBERS • IN STUDENT POPULATION
FACULTY	• RESISTANT TO • CHANGE	• FLEXIBLE - OPEN • TO CHANGE
DEPARTMENT HEADS	• FORMAL POSITION • NO MAJOR ROLE - • COMMUNICATION + • COORDINATION	• FORMAL POSITION • NO MAJOR ROLE • COMMUNICATION + • COORDINATION
ADMINISTRATION	• ADMINISTRATIVE FOCUS • OVERWHELMED BY • DISTRICT + SCHOOL • DEMANDS • TRADITIONAL • HIERARCHY • CONTROL: EXTERNAL	• PARTICIPANT • MANAGEMENT • INVOLVEMENT • WITH DECISION • MAKING GROUPS • RETAINS LEADERSHIP • CONTROL: INTERNAL
DISTRICT	• STRONG PUSH • MANY CHANGES • EXTERNAL TO • SCHOOL • MONITORS	• POLICY INITIATIVES • INTERPRETATION • LEFT TO SCHOOL • MONITORS
COMMUNITY	• LOW SES • ETHNIC • UNINVOLVED IN • SCHOOL	• MIDDLE SES • PROFESSIONAL • UNINVOLVED IN • SCHOOL • INVOLVEMENT GROWING
TYPES OF CHANGES	• MOSTLY EXTERNAL	• INTERNAL + EXTERNAL

that the school had concerns particular to itself that compromised the district's push for high achievement.

In School B, these situational factors operated differently. The district's interest in enhancing achievement was facilitated through encouraging participatory or school based management and initiatives rather than through pressure or top-down initiatives. The teacher group was newer, largely younger, had less history at the school, and were more flexible in their response to change. The principal's personal and administrative style worked well to encourage their participation and flexible decision making, while at the same time maintaining a sense of leadership and direction for the school. The community's professional background supported academic development, despite coordination and growth problems inherent in the addition of 200-250 students yearly. Both the district and the principal stressed communication as a means to facilitate the changes occurring in the school.

Overall School B might be characterized by flexibility of structures, while School A was essentially inflexible in terms of change. In School B, change initiatives were presented and negotiated. In School A they were dictated. Facilitation occurred in both cases to one degree or another. School B was essentially open to working for change; School A was closed to change as it was being approached at this point in time. In both cases, it is likely that there will be some positive outcomes of change efforts, though those outcomes seem to be related to teacher choice and involvement as much or more than to leadership. In School A the community context is more problematic to the district goals than in School B. The constant change in population in School B requires more flexibility in itself. The contrasts in these sites, however, illustrates some of the different ways situational

factors can affect a given context and change effort. Some places can be lead where they can't be driven.

Generalizations From the Situational Factors Data

The previous section describes some different ways the same situational factors influenced changes occurring in those two school sites. The factors having the most influence in those sites - administration, faculty, district, and community - were seen by researchers to have greater variance across all sites in the way and degree to which they influenced the change process. Each of these factors could in themselves be broken down further into smaller or more discrete parts. For example, the influence of the community on the one hand involves the SES and stability of the group and how that impacts the school; on the other hand it involves its dynamic with the school - whether it interacts with the school, in what fashion, and to what effect. School A in the previous description was in a low SES community with language problems and with minimal interaction or support from the community directed to the school. Another school in the sample had the same SES and language problems, but less transience in the community and a great deal more support and involvement with the school to their mutual betterment. It is likely that the other factors seen as having greater influence on the school could also be quantified more than this initial descriptive analysis allows.

Another set of factors viewed as part of the situational data - facility, co-curriculum, students, department heads - were not seen by researchers as having as great an influence on change in the school. Overall, the influence of these factors was seen to be more similar, or characteristic, across sites. The following describes some of the ways these factors were an influence on change.

In general, the characteristics of the student body were usually the same as those of the community. Students themselves, separate from these characteristics, had little influence on change in the school, by their own admission. Students tended to be "changed" rather than effect change, except through the influence of the more general demographic characteristics.

The primary function of the department head, whether an official or unofficial role, was that of a communicative link between upper administration or the district, and the teacher body. How this link was utilized for change, including in this the responsibilities in the role and support for it, did make a difference to change efforts. Department heads themselves usually did not have major impact on changes occurring in the system except as communicators and facilitators within their department. The degree to which they had the time or support to do this varied greatly site to site. As a part of the teacher group, however, they did have an influence. Teachers tended to feel that they did have some impact on acceptance or rejection of change in active and passive ways. Overall, the majority of changes did not come from the teacher group - they came from outside that group and often from outside the school. How teachers responded to those changes was often related to how open they were to initiating change themselves, or how much freedom they had within the structure of the system. This should be further qualified by saying it also was conditioned by their age and historical role in the school. The influence of department heads, however, reflected the attitudes of teachers; as a middle person it also reflected that of administration. The role of the department head and their actions in the school are discussed further in Hall and Guzman (1984) and Hord (1984) both a part of this symposium.

The influence of the facility on change was also related to communication. In general, changes in the facility, or the ambience of the

facility itself did not seem to have a major influence. In most cases, departmental classrooms and offices were clustered together allowing for enhancement of communication within the department often to the detriment of communication across departments. Many schools had become large enough that teachers in different department did not know one another. Faculty meetings and teacher lounges were not sufficient to bridge this departmental gap. Departments varied in character given the interests and characteristics of the teachers in them. Given this, it is difficult to generalize about all departments in any one school.

The influence of the co-curriculum on change in the school was not seen to be as great as first expected. The co-curriculum does influence the hiring of teachers in their coaching assignments and does allow some students (and teachers) to leave school early for athletic or musical events. In general, this did not seem to overly disrupt the academic program. To the contrary, many of those changes described for the school involved increasing academic standards for athletes and reducing the interference of the co-curriculum on academics generally. Teacher and coaching assignments were largely routine, and changes in academic requirements easily negotiated. The press for higher achievement was accepted by athletic staff as well as other school and district personnel. The co-curriculum was found to be very important to school spirit and community involvement, however. If the school had the image of doing well to the outside world in some area - athletics, music, band, theatre, forensics -- usually not academics - then school spirit was high. The co-curriculum was also important to those students who were not academically oriented and as a life-skill and relaxation tool for those who were more academic.

Situational Factors: What Next?

Some of the ideas presented in this paper offer an initial cut at situation analysis in the high school study. Further work obviously needs to be done and initial generalizations from this data tested further. Attention to situational factors and their influence offers many benefits to researchers and practitioners alike. For research, it allows for the separation of some factors from of the morass of context to determine more exactly the nature of their influence specific to a particular context as well as in general terms. For practitioners it allows for planning within a change effort to mediate or enhance the influence of various factors on a change effort. The descriptive analysis approach used in the high school study is a beginning; an end goal would be to begin to quantify, or simplify, situational analysis such that it might be an instrument used by practitioners in assessing the strength of influences in their own situations. The factors described for Phase II of the high school study, especially those showing greater variability will be investigated further in Phase III in order that they might begin to be applied to a situational analysis instrument.

As part of the study design includes the differences between typical and changing schools, one next step would be to assess the character of influences in each of those different types of schools. School A, in the case study presented earlier, is a school selected as typical to the district. School B is one selected as a 'changing' school. Both schools had a number of changes occurring, i.e. there were no significant differences in the number of changes occurring in each school despite their different nominations by their districts. Yet there were differences in principal style, district management and goals, teacher attitudes and backgrounds, and general ambience. What role do these and other situational factors play in a change process and how do they interact with each other to make change more effective, or less traumatic

for a school and its population? How does specification of roles and different organizational structures or leadership styles affect change in high schools? Does a better understanding of roles, organizational structures and situational factors allow for manipulation of the context to enhance the potential of change? These and other questions are a part of understanding the total context of a change effort.

The situational factors used in this study is an attempt to consider factors in separation from the total context without losing sight of the unique character of that context. It also views these factors in terms of the goal of the study, i.e. their impact on the changes occurring in each school, rather than in more general terms. It is hoped that Phase III will result in an even better understanding of the influence of such factors on change and ways that their influence can be dealt with to positively improve efforts for change.

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**SOURCES OF LEADERSHIP FOR CHANGE
IN HIGH SCHOOLS**

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The University of Texas at Austin**

R&D Report No. 3185

**Paper presented at the annual meeting of the
American Educational Research Association
New Orleans, Louisiana
1984**

SOURCES OF LEADERSHIP FOR CHANGE IN HIGH SCHOOLS^{1,2}

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In the last year and a half our research focus has shifted from the study of the role of the elementary school principal as change facilitator to examination of the dynamics of the change process in high schools. Unlike some of the past transitions that have occurred in our programmatic research, in this transition there was a much more restricted literature base that could be reviewed and our own clinical experiences were relatively limited. We certainly were aware of the many myths and stereotypes of what high schools were like and we had heard from many principals and others about how much more complex high schools were and how much more difficult it was for them and others to become instructional leaders. In fact, there was some suggestion that we would have a difficult time in identifying high schools where change was occurring and that collecting data in high schools would be problematic at best and in some cases, dangerous.

Much to the contrary, we have found our experiences in high schools during the last eighteen months to be challenging, fascinating, enlightening, and safe. High schools are indeed complex places and you certainly can understand how some of the impressions of high schools have developed.

¹Paper presented at the annual meeting of the American Educational Research Association, New Orleans, April 1984.

²The research described herein was conducted under contract with the National Institute of Education. The opinions expressed are those of the authors and do not necessarily reflect the position or policy of the National Institute of Education. No endorsement by the National Institute of Education should be inferred.

However, as we have attempted to examine more closely how the change process works in high schools, we are finding just as an onion is made up of many layers that descriptions and interpretations of high schools seem to change depending on how closely one is looking. At more distant viewing points high schools do indeed seem to have overwhelming complexity. Teachers appear to be subject matter bound, principals appear to have many things to consume their time and little opportunity to serve as instructional leaders. In addition, department heads seem to be an obvious choice for leading in the implementation of major changes. However, when high schools are examined more closely none of these generalizations appear to be accurate. Further there is an ether of additional subtlety that, for us at this point, is making it extremely difficult to develop generalizations about the real dynamics and designs of the change process in high schools. It seems as if every high school that we visit provides a new twist on what in one sense is the same set of variables.

We do believe that some patterns are beginning to take shape at this point and some of these are being shared in the papers that make up this report. In this paper, we share some of our initial interpretations, hypotheses and prescriptions about the various actors that can serve as change facilitators in high schools. We also explore some of our tentative proposals and hunches about ways that the roles can be reshaped for more successfully bringing about change in high schools in the future. We offer these impressions and emerging concepts as working hypotheses to stimulate discussion and as guides for next steps in peeling layers off the onion of change in high schools.

Sources and Forces for Change

To help us develop clearer understanding about the different purposes and organizational roles that change facilitators can have for this study we have identified three different functions that, at least in terms of definitions, can be distinguished. In practice one would expect that some change facilitators will combine some of these roles. However in our present study these roles appear to be distinctively separate in terms of the people who are carrying them out. These different change facilitator roles are:

Source of the innovation. This is the agent or agency that initially conceives of the innovation, its objectives, processes and products.

Impetus. The individual(s) that is responsible for pushing the adoption of the innovation by the district, school, department or individual teacher. This person(s) convinces and provides policy level support for the adoption and implementation.

Implementation facilitator. This is the person(s) who provides the ongoing training, consultation and reinforcement for teachers and/or administrators who have the job of establishing use of the innovation.

It is interesting to note that our fieldwork suggests a trend at this time for the source and impetus for change to be located outside of the high school. Increasingly, it appears that the source and impetus are coming to the high school rather than being located within the high school. This is not to suggest that necessarily in the past more innovative activity was initiated from within the high school. All that we can say from our fieldwork is that at this time the impetus for change and the sources of innovations more typically are external to the high school. This trend, if it turns out to be that, demonstrates a point that we have consistently advocated. That is, that "top down" strategies are not inherently good or bad, but rather just one of

several strategic options that carry with them particular advantages and disadvantages.

For our studies of the dynamics of change in high schools, the present practice of having the source and impetus outside the high school clearly has implications for the role options of those staff who are stationed within the high school. They clearly would have fewer opportunities to create and initiate changes and concomitantly would have major responsibilities to facilitate implementation of already selected innovations, which is what we have found. And within this we have found a variety of responses to the external expectations.

The Logical Facilitators

The obvious role groups to take the lead in facilitating implementation within a high school would, of course, be the principal, the various assistant principals and department heads. Also to be considered, but perhaps less obvious would be various curriculum coordinators and others from the central office and perhaps teachers. In our sample of study schools we have identified instances where all of these role groups have served as change facilitators and instances of various combinations of these role groups serving as change facilitators. At this point a case can be made for almost any combination or point of view or delineation of role responsibility that can be imagined. It is more difficult to identify trends, predictors and commonalities that can be used to design hypotheses and potential recommendations about the dynamics of change that cut across all high schools. If this general level of abstraction is maintained, it appears that all things are possible.

At more detailed levels of analyses, it first appears that there are no generalizations. Yet, as rational scientists we know that there have to be

some common answers, so we have continued to search for unifying principles that can be used to interpret how the change process works in high schools.

Our working conclusion at the moment is that yes, all of the different actors in and around a high school can serve as sources, impetus and implementation facilitators. Further, the conditions that make it possible for particular role groups to take on these roles varies and the way that the role is carried out greatly determines the chances for successful change. Thus once again, it appears that theory and research must acknowledge the multivariate and systemic nature of the change process in educational institutions and the importance of context. We cannot simply look at the change facilitator role of the principal, department head, or central office coordinator without understanding more about the persons in those roles and the context within which they are working. These contextual factors appear to be especially critical in high schools where there are more administrative levels and organizational sub-units.

Thus, in this paper we describe with illustrations some of the ways that these different role groups can serve as change facilitators, describe what they are doing when change is successful and address some of the situational factors that appear to be necessary for each of them to take on effective change facilitator roles.

To present our hypotheses and a few hunches, we have organized the next section of this paper around the standard roles that exist in high schools and in relation to high schools. For each we describe some of the potential strengths and inherent weaknesses in that role, review some of the folklore about that role and use excerpts from our field notes to illustrate successful change facilitator practices by persons in that role. We also provide some

information about the situational factors and conditions that appear to support persons in that role being effective as change facilitators.

High School Principals as Change Facilitators

Before launching this study, we had been impressed by the number of high school principals who reported that they had too many complications in their work, not enough time and could not serve as instructional leaders in their buildings. Contrary to these frequently heard testimonials in our field work we found many high school principals who clearly were effective as instructional leaders and change facilitators. In some way they had found time, they were in classrooms, things were happening in their schools and everyone would identify them as the key reason.

For example, the following excerpts from research field notes illustrate what we were observed and were told.

School A. ". . . it was my impression that he is the catalyst and controller of change in his schools. All people I interviewed immediately named _____ as having the most overall influence on what happens in the school."

"During his six years as principal, he has turned the school around from a place no one wanted to go (including students, teachers, administrators) to a school that is known for the motto of "another success story." When he started as principal, teacher morale was low and students had the attitude they could get by with anything they pleased. The school was losing in all areas of their athletic program and this was contributing to low school spirit. The facilities were run down and thus there was little pride among students and teachers about their campus. The teachers had the reputation of being a rebel faculty and the school was a center for union activity. There was little collaboration or cooperation among the faculty. Teachers and

administrators did not want to be transferred into the school and many parents did not want their children to attend the school. There is a consistent opinion among persons inside and outside the school that he is responsible for the school's turn around."

"The principal runs this school. There is no question about his ultimate authority, perceived or real, but having said that, it is important to note that he is very supportive of staff initiatives, so long as they are conducted within the district and building and district rules and procedures."

Staff members who have taught at _____ high school for a number of years were remarkably uniform in their responses to the interview questions. Without exception in response to the question, "Who has the most influence in what happens in the school?" was an unhesitating "the principal." (This response was found in several other schools.) When asked if there was also an influential person outside the chain of command, only one person was able to name someone who might carry weight as an opinion leader. Students showed the same responses. Seniors, when asked these questions, named only the principal. Apparently power was held very centrally within this school to the satisfaction of nearly everyone.

Other quotes could be excerpted that further confirm that indeed in some instances high school principals are key change facilitators. More importantly we have been able to gain some insights into what these principals do to facilitate change that is strikingly different from what other principals do. The lists summarized in Figure 1 are illustrative of the priorities and activities of two contrasting styles of principals that we have found.

Interestingly the two styles of facilitating change that are represented in Figure 1 are very consistent with two of the change facilitator styles that we had earlier identified in our research with elementary school principals.

Figure 1

Sample Notes from Interviews About the Contrasting Styles of High School Principals

Active Change Facilitator

He hires everyone.

Once hired, individuals are given tasks and a great deal of autonomy to complete them.

He maintains close personal contact.

He requests written weekly summaries from department chairs each Friday and returns them on Monday with written reactions and requests for meetings or follow-up.

He meets weekly with his administrative council.

He makes a point of communicating clearly what the rules are; everybody knows the procedures, and diligently follows them. Yet, by his own admission he supports and frequently demonstrates "creative insubordination," if the rule bending is defensible as a means to a reasonable improvement for school ends, e.g. to students and/or staff benefit.

The principal carefully picks his battle fields, enlists his cadres (a selective array rather than as an organizing group). He initiates the effort and moves on to other things.

When staff roles are differentiated he clearly expects the incumbent to know their job and to do it and in turn he fully backs them up, even if he disagrees with the immediate application of policy.

He uses his two AP's equally. The three run things.

Less Active Change Facilitator

In the seven years she has been principal, I could identify only two changes that she had initiated. And, in both cases these changes were to eliminate existing programs, not to add or change.

At the school level the three major changes that have occurred in recent years and one that is scheduled to begin soon, came from district level initiatives.

There seems to be little interactions between the principal and teachers, or students and the principal.

The overall impression for me was that as long as there was no problems that had to be resolved from the principals' office everything was handled as it always had been by the teacher in the classroom, or the department head or others in charge of an area.

The principal believes that the teachers can handle their own classrooms without intervention except in time of need.

Change appears to come from outside to the principal's office as a decision. The actual movement around implementing change is left to the department head to do in greater or lesser fashion and some do it very superficially and some do not.

Figure 1--Page 2

The principal typically initiates change by exploring existing resources, creatively reshaping them to create a new role and reassigning a person to become a "major mover."

The principal is close to teachers, other staff and students. In fact, she spends 2 to 3 hours, minimum each day visiting all parts of the building.

It is almost impossible (say 3 teachers) to say "no" to her.

The principal goes out of her way to involve people in decisions as often as possible, unless she identifies it specifically and only as her decision.

Teachers and students report her (prin.) as having the power.

The principal is seen as the one most responsible for change.

The principal runs a tight ship, but doesn't see himself playing a direct role in instruction.

The principal is the number one person and coordinates the other three key people.

Part of his responder like behaviors include high personal concerns, low instructional leadership, low visibility, high affective response to teachers, especially new ones, the tendency to believe and act towards teachers as an autonomous group (they know what they are doing), and low involvement with teachers on a professional level.

On the other hand he is an effective school administrator with budget, administrative tasks and delegating responsibility.

Rather than maintain his autonomy as a leader of the school, setting priorities and realistic expectations for it, he was overwhelmed by district pressure and felt immobilized by them. He superficially did what was expected but with no overall plan.

He can make decisions and at times will decree things. However he continually is uncertain about what his priorities should be and is attempting to respond to the pressures from parents, teachers, students and what he perceives to be the intentions of his superintendents and others in the central office.

While the principal believes in the underlying philosophy of the school and its comprehensive program, he does not take an active role in pushing the school in new directions. He relies on the combined concerns of staff to set the focus and direction for the school.

In that research we had identified three different change facilitator styles, Initiators, Managers and Responders (Hall, Rutherford, Hord & Huling, 1984; Hall & Rutherford, 1983). We were not certain that these change facilitator styles would be present in the high school situation. However indeed we have found excellent support for the existence of these change facilitator styles in high schools. The description of the more active change facilitating principals is very consistent with the Initiator style and the descriptions of the less active principal is consistent with what we had earlier identified as the Responder style.

Other Role Groups as Change Facilitators

As can be seen from the descriptions provided in Figure 1 it does appear that in some instances high school principals do serve as change facilitators, while in other instances they seem to abdicate or be more passive with regard to facilitating change. When the high school principal is not the primary source, impetus or implementation facilitator who does these things? Well based on our field work to date, the answer is not as straight-forward and logical as one would expect. One role group that many see as being active as change facilitators is department heads. Other possibilities include assistant principals and central office coordinators.

The Role of Department of Heads

One answer that is emerging out of the field trips and data analyses is that department heads in most instances are not prime movers for change and do not typically facilitate implementation. This finding is surprising, and somewhat discouraging, especially since we had proposed two years ago to conduct a concentrated study of change in departments and to analyze the role of department heads as change facilitators. If we had not

listened to the advice of several consultants with extensive experience in high schools and our NIE program monitor we would have very merrily launched a major study of what in general appears to be a non-event. With rare exceptions department heads are primarily passers of information, orderers of books and maintainers of inventories. In general, they are not serving as leaders and facilitators of change, although there are exceptions. A classic example of the exception is reported by Hord (1984).

We have found an amazing array of job descriptions and compensation procedures for persons who become department heads. Compensation ranges from no released time to teaching only one class period a day. Financial support ranges from no additional salary incentive to in excess of a thousand dollars differential from a teacher's salary. Another key finding about department heads is the universal absence of training for the position. When persons are selected to serve in the position, there is no training in leadership, administration, curriculum, staff development, teacher evaluation or any other imagined dimension of the position. The right of passage typically occurs in the spring and entails the incumbent passing to the new head the tattered card file of the department's inventory, a few boxes of administrative meeting notes, the district course syllabus' and a few old textbooks.

Another consistent finding was that the definition of the job of being a department head is not well articulated and definitions are not available in the literature. There may be some reference to the position in labor contracts but when there is it generally brief. Based on our observations to date one must hypothesize that it is not at all clear what the scope and thrust of the role of department head is or can be in terms of leadership.

Interestingly, the overall job seems to be defined more by how the principal of each school designates it than any formal policies within the

district. The role of being a change facilitator appears to be much more related to the personal characteristics and interests of individuals who are serving as department heads.

We have seen some exciting and wonderful examples of department heads taking the lead and being initiatory in terms of change. Business Education department heads have been particularly progressive in terms of their use of micro-computers, for example. Yet this has not been the overall pattern. One tentative generalization would be that the heads of English departments appear to be less innovative, with math, science and fine arts departments falling somewhere in the middle. Perhaps there is a similar dynamic at work for high school departments that is observed in colleges and business. Those departments with guaranteed enrollments (or revenues) are less innovative than those who have to constantly be attuned to market needs.

However, the primary key to department heads being effective change facilitators appears to be related to how the principal defines their role. District policy, the size of the salary differential, the amount of release time that is available and the subject area appear to be less important explainers than what the principal expects from the position. If the principal sees department heads as passers of information, that is what they tend to do. If principals have higher expectations then the department heads seem more as middle level managers. For example, in one high school the principal expected department heads to be involved in teacher evaluation as well as department leadership. District policy forbid this, however teachers and administrators in this one high school were consistent in understanding how department heads worked in their school. There was no indication that there were problems with this expanded role or comments about the school not being in compliance with district policy.

A related set of data that we do not have which would be important in further amplifying the role of department heads would be to analyze the process and content of department meetings. Frequency of meetings and the related forms of intradepartmental communication would also have to be monitored, since we have found that many departments presently meet irregularly or rarely. At this point it appears that department heads meet less often in high schools that are less innovative and the meeting agendas have less to do with instruction and change.

Some contrasting examples of the role and activities of department heads who are and who are not active in facilitating change are presented in Figure 2. The amount of change facilitating activity of department heads in some cases appears to be related to the encouragement and support of more active principals. For example, in one high school the principal was redesigning the role of the department head by having them trained in staff development. We have also observed active department heads within schools where principals were not particularly active. Some department heads appear to be able to make a difference within the vacuum of opportunity that is presented them.

In terms of any nationwide movement or readiness for department heads and departments to be key units of change, we have not found the indicators. It appears that much will have to be done to define the role, select promising persons to fill the role and provide them with related training, support, incentives and opportunity before they can become effective change facilitators in any sort of large scale change efforts.

Having said all of this in support of the potential of department heads to become change facilitators does not mean that the opposite point of view is not tenable. In fact we have interviewed some highly credible and skilled principals and central office personnel who maintain that departments are too

Figure 2
Department Heads as Change Facilitators

Active

With a responder principal reacting to changes directed from Central Office and outside the school, the D.H. led the actual implementation.

In curriculum issues, the path of change is T -- D.H. -- C.O., with the D.H. playing the key role for up and down communication.

The principal didn't initiate change -- this is done by the teachers (somewhat) and the DH.

This manager style principal relies heavily on the VP and the DH to run the school.

D.H. share in the summative evaluation of teachers with A.P.'s.

D.H. = Department Heads
V.P. = Vice Principals
A.P. = Assistant Principals
C.O. = Central Office
T = Teacher

Non-Active

This initiator principal has a team approach and uses his two A.P.'s. The DH do not appear to be employed in change efforts.

D.H., by and large, do not exert much control on the quality of instruction.

D.H. exert a high degree of influence on the operation (reporting, inventory, communicating directives) of the schools.

D.H. leadership appears to be minimal.

There is very little interaction between D.H.'s.

In a district with many changes coming from C.O. the DH is expected to facilitate the change (but doesn't necessarily).

All teachers and administrators interviewed commented on the decreasing power of DH and teachers in matters which were traditionally school managed and the increased role the C.O. has in these.

The D.H.'s interviewed said that the cabinet meetings invited D.H. suggestion but had little real discussion.

District level interventions had impact on the D.H. level -- none had been initiated by or within the department.

narrowly focused and should not be used as units of change. The persons who hold this point of view are working to create alternative mechanisms to facilitate change and are deliberately bypassing departments. This may in part explain some of the confusion and inconsistency that exists about the department head role.

Clearly our understandings of present practice and the promise of departments and department heads in relation to their role in change is incomplete. More concentrated field work must be done before we can begin to develop full descriptions of present practice. We also must develop clearer descriptions of the potential, or absence thereof, for department heads to facilitate change and for departments to be key units of change. Strategies for more effectively facilitating change within and between departments must also be more clearly thought out and planned for than is typical of present practice.

Assistant Principals and Deans

Another group that can play a role in facilitating change is that of assistant principals, vice principals and deans. Again the picture is mixed, we have some cases where assistant principals have taken the lead unilaterally to facilitate change. There also are instances as described above where the principal was very active and formed a close working team with his/her two or three assistant principals. In this situation there appears to be change facilitating team at work with all of the senior administrators in the building taking part and sharing responsibilities for change leadership (Figure 3).

We also found assistant principals in more active schools assigned to evaluation of teachers and this assignment would be made in such a way that over time all assistant principals were involved with all teachers. So that over a two to three year period the principal and the various assistant principals would have first-hand involvement in evaluation and instructional

Figure 3

Examples of Change Facilitator Team

More Active Principals

Diffused leadership. The AP's are important leaders.

The principal is an Initiator and uses his two AP's equally. They run things. Everything is formalized.

In a school with a manager-style principal, this person relies heavily on the V.P. and D.H. to run the school.

An initiator principal is the number 1 person in the school and coordinates the other three key people.

Less Active Principals

With a responder principal, the AP's have specific roles.

Since the principal is a responder, the 2 AP's (and one in particular) hold the real power in the school.

The AP's have specific tasks and roles -- the school runs itself.

supervision of all teachers. It appears that in more active schools there is more job sharing between the assistant principals and the principals. In those less active schools the pattern frequently had the assistant principals doing many of the tasks that we found principals doing in the more active schools. For example, assistant principals in less active schools were often in charge of budgets and their allocation to departments. In the less active schools assistant principals were assigned full responsibility individually for certain tasks and these assignments were kept relatively constant from year to year. A contrasting picture was observed in several of the less active schools.

At this point it appears that the role that assistant principals play in terms of facilitating change is defined by the principal, as is the department heads role. If principals are passive in their assignment of change facilitating responsibilities then assistant principals do not typically translate the "opportunity" into new initiatives but rather use their positions to maintain present directions and momentum. When principals involve assistant principals there tends to be a dynamic collegial change facilitating team with differentiated roles but interconnected movement and continual exchange of information.

The Role of the Central Office

Repeatedly in our field work we have observed that the bulk of the innovations and the sources and impetus for change are coming from outside of the high school. It appears that district level initiatives are increasing and there also are a surprising number of state initiatives that flow to the high school for implementation.

The overall dynamic within the central office appears to be very similar to the dynamic that is being observed within the high school. When the

superintendent or assistant superintendent becomes active and sets a priority for innovation and change within the district, then the various coordinators and other staff within the central office become very active in supporting and moving the district in the identified direction. If the superintendent does not have change as a priority then each of the curriculum coordinators and other central office administrators appear to go their own way. Most appear to work at maintenance with occasional flurries of innovative activity but no concentrated efforts that systematically effect all high schools and all parts of high schools within a district.

The above is a fairly obvious observation. A larger mystery out of the data is trying to understand the optimal role and impact of central officer coordinators. We had expected them to be much more visible and their impact to be much more easily observed on the high school campus. This however has not been the case, with the notable exception of one district. At this point we would hypothesize that central office coordinators are spread so thin and involved in so many of the basic maintenance activities in relation to the curriculum that they are not able to serve as a dynamic force for change and facilitators of change.

In the one district that is the notable exception, there has been a 12 year history of districtwide movement towards improved instruction and instructional effectiveness. Most recently the priority has been on implementing an Effective Schools model, including Hunter's Essential Elements of Instruction. Two years ago the architect for ten years of this movement within the district became the superintendent. This event in and of itself is a surprisingly rare phenomenon. One consequence for the district is that the instructional effectiveness has been a consistent priority and has even resulted in career advancement for those who have been most active with it.

The role of central office coordinators is notable here since the district has recently created a new position at the district level titled Director of School Effectiveness. In addition, the district has created a new position within each of the district's high school for a "staff developer" who is responsible for facilitating implementation of Essential Elements of Instruction within each high school. These new positions are highly visible and active. The Director of School Effectiveness spends a great deal of time in the various high schools of the district, observes and makes suggestions. Whether this is because the person is particularly effective, the district is on the move, or because the role is new or some combination of these, is more difficult to interpret. However, this is a clear case where a central office person is highly visible and is having an impact on what goes on in one set of high schools. This then becomes another area in need of concentrated study; what are the conditions and functions that maximize the potential of central office coordinators to work as change facilitators?

A note should be made at this point that the innovation that is being implemented in this case is generic and cuts across departmental lines. It may be that bringing about change in high schools requires innovations of this type so that the departmental and subject area interests of teachers are not compounding. This goes back to the issue described earlier. However, we remain unconvinced that teachers and departments are as subject matter bound as is suggested by the folklore, which brings us to the topic of teachers as change facilitators.

Teachers as Change Facilitators

Examples of teachers as change facilitators were few. It appears that in general teachers respond to suggestions for change that are initiated by department heads, principals and central office personnel. There appear to be

few opportunities for teachers to initiate change themselves. There were some noted exceptions. For example, we found a social studies teacher who was new to the school who conducted a staff development day workshop for all teachers within his high school on power writing. This workshop converted a large number of the teachers from resistance to power writing to active interest in it. In this instance a teacher turned out to be a most powerful implementation facilitator for a district initiated innovation. Other isolated instances were found where teachers identified innovations or became advocates for innovations. Yet the overall pattern seems to be that teachers are not frequently serving as change facilitators. When they do have ideas they can approach their department head or principal and may receive sanction to proceed with bringing about change. As one might expect many of these changes only affect the teachers' own classroom and responsibilities. The implications of this lack of activity and opportunity for teachers to facilitate change go far beyond school improvement and relate to the failure of teachers to have a profession and to have the related power to determine their own destiny (Howsam, 1984).

Summary Discussion

At this point in our study it is difficult to make sweeping generalizations and to propose prescriptions for where research and practice should go next. In the case of understanding the dynamics of change in high schools we believe that we are developing increasing clarity about the details and conditions that need to be present for successful high school change. However, the layers of the onion analogy must be kept in mind. At a more superficial level the conclusion has to be that it depends upon the principal and the superintendent. With several layers peeled off the onion, the

importance of the principal is still there, but the under utilization of the other actors is glaring. The appropriate role(s) of central office coordinators and their effects need to be examined as does the question of the potential of departments.

Also, the key role played by assistant principals needs further study. It was interesting to go through our field notes and to observe that in each of the more active high schools the principal and the assistant principals worked as a team. In those schools the various assistant principals' roles had differentiation along with inter-coordination. There isn't as apt to be one assistant principal for discipline and another for instruction. The roles of the assistant principals and the principals seem to be more co-mingled with all being involved in most parts of the school's life, and each knowing more of the bigger picture.

The dilemma of the department heads is even more perplexing. We continue to want to see the department heads as key change facilitators and departments as viable units for change. Yet, the job, the present job descriptions, the ways that department heads are selected (by vote, by seniority, in some instances by the principal), and the absence of training make it seem very unlikely that in the near future that department heads will be able to be much of a factor in facilitating change.

The structure and sociology of departments is even less understood. For example, it does not appear that teachers necessarily identify more strongly with "their" department. Thus, assumptions about the department being an intact social system will have to be more closely scrutinized. Some teachers who are members of subject matter departments identify more closely with a co-curricular/extra-curricular assignment. Others identify more with certain class responsibilities. Some identify primarily with their subject matter.

The problem then is that all of the teachers assigned to a particular department do not intensely identify with that department, which works against departments being a ready unit of change.

An even bigger issue is the role of the central office. Whether overall directions are set or not is one key. But who follows through? It is not at all clear what the normative actions and effects are of the typical central office curriculum coordinators. It is not at all clear what the ideal role can be. In terms of our study to date their presence has been surprisingly undernoted within high schools.

If high schools are going to respond to the kinds of concerns and directions that are being identified at this time, it is important that we identify not only principals who have the skills to be effective change facilitators, but that we clarify the potential roles that other actors within the district and the school can assume. We will also need to clarify their responsibilities and provide relevant training and support so that they can then carry out these change facilitating roles. Without these forms of clarification and assistance once again change will be treated as an event rather than a process, with all of the associated consequences.

High schools in some ways are indeed complex organizations. In other ways, high schools are more tightly organized and have a stronger potential for effective change facilitation than their elementary school counterparts. The potential is there, but the resources, the situation and the capacities are not sufficiently developed to readily accomplish the goals that they and others aspire for high schools at this time.

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**FACILITATING CHANGE IN HIGH SCHOOLS
MYTHS AND MANAGEMENT**

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R&D Report No. 3187

**Paper presented at the annual meeting of the
American Educational Research Association
New Orleans, Louisiana
1984**

FACILITATING CHANGE IN HIGH SCHOOLS
MYTHS AND MANAGEMENT^{1,2}

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We talked with many individuals in Wellington, a big city, urban high school. They reported that over the course of several years, the school had been changing - its building and grounds, its climate, its image. The result is a work place where teachers, students and administrators now say they look forward to coming. The social studies department chair explained how change was being managed in their school.

High School Change as Hotel Restaurant Management

The high school, according to the department chair, is a more democratic society than the elementary school. There are more cooks in the kitchen and they are organized around head chefs. One department head is a pastry chef checking the crusts and color of the butterhorns and croissants as they leave the kitchen. Another department head is a salad chef monitoring the trays of salads that go out. The deans in this system deal with the trays that don't pass inspection, shaping them up or scraping the plates clean. The principal is the hotel atelier, managing all of the parts so that they work well and in

¹The research described herein was conducted under contract with the National Institute of Education. The opinions expressed are those of the authors and do not necessarily reflect the position or policy of the National Institute of Education. No endorsement by the National Institute of Education should be inferred.

²Paper presented at the annual meeting of the American Educational Research Association, New Orleans, April, 1984.

coordination. In contrast, elementary schools are more like boarding houses with one person, the principal, preparing the whole meal and cleaning up also.

The explanation is that there are many cooks stirring the broth in the high school and that the feast is served up in a complex manner. Thinking in this way about high school management of change, its actors and actions, is useful. The actors, the individuals who deliver the salad and the sauce and provide leadership for change in high schools, are discussed in another paper by Hall and Guzman (1984). This paper will focus on the actions, the critical interventions, that can be used to manage and support change.

In the paper the study which provided the data about interventions made during high school change efforts will be briefly explained and the intervention data which are examined for this paper will be described. A second part of the paper, a discussion of currently popular myths regarding the management of change in high schools, will be explored and will include mini-cases from the study schools in order to consider the veracity of the myths. The paper concludes with implications for the change manager, and suggestions for further research that is needed.

Parachute Drops Into High Schools

Two researchers made two-day visits to two high schools in districts geographically dispersed across the nation. These visits were part of a study of how change occurs in high school settings conducted by the Research on the Improvement Process program at the Research and Development Center for Teacher Education, University of Texas at Austin.

Dynamics of High School Change Study

Phase II of the three year Dynamics Study has been affectionately called "Parachute Drops." This study phase was designed as a descriptive

investigation of a national sample of schools. The focus of the parachute drops in the high schools is to explore four large questions related to change in the schools: what are the types, sources and purposes of change; what are the key units of change; what are the key situational factors that influence the change process; how is the change process managed. The sample of nine school districts in nine states includes a range of community sizes and types - urban, suburban, mid-size city, rural.

Two schools were selected in each district by central office persons. One school was judged to be changing a great deal, while the other was considered to be typical of high schools in that district. During the two-day visit the researchers worked together and independently to interview a wide array of persons in the school. Role specific interviews focused on the four study questions were made with the principal, assistant principals, department chairpersons, teachers, students, counselors, student activities director, athletic and music directors, and school secretary. Also interviewed were central office personnel, such as the director of secondary education and a curriculum specialist.

After data collection, a data reduction process completed by the researchers yielded reports whose sections correlate with the four study questions. This procedure provided documentation of the two researchers' perspectives about the four questions relative to each school, and perspectives from four researchers about each district. See Huling (1984) for a complete explication of the study procedures and methodology.

Intervention Data

For this paper the interventions from four data reduction sets representing four school districts in four states have been examined. Each of the four

sets represents two high schools from each community type in the study - one urban district, one suburban, one mid-size city district and one rural.

In the reduction process, each researcher referred back to the taped interviews and listed five critical interventions identified from their data. The researchers had asked interviewees in the schools what had been done during the past two years to make particular changes occur in the schools. These actions, or interventions,* were nominated by teachers and others out of the time referenced by the interview question. From the responses solicited and collected from every person interviewed, the researchers triangulated the data, and bringing their experience and clinical judgement as change researchers to bear, identified "critical interventions" for each school. The researchers characterized these interventions as being "significant, important and critical for the implementation of a particular innovation." The processes of solicitation and subsequent selection of the critical interventions by the researchers would not bear rigorous quantitative scrutiny. Quantitative measures to establish reliability and validity were not deemed appropriate for the exploratory, descriptive investigation. The objective was to gain a sense of what was being done to support change and to make it happen. Thus, the more qualitative data collection and reduction procedures were employed.

Using a framework developed out of earlier change research (Hord, Hall, Zigarmi, 1980) the interventions were then coded by the researchers to classify several of their internal dimensions. These dimensions were the source, target, and function of each intervention. To understand what these

*An intervention is an action or event or a set of actions or events that influences use of the innovation (Hall & Hord, 1984, p. 283).

critical interventions looked like and how they represent the management of high school change, the function codes of the interventions have been scrutinized. The function of an intervention is defined as the purpose(s) of the intervention and represents what the intervention was intended to accomplish. Eight function classifications are included in the framework and can be used to capture the purposes of the critical interventions that were identified. These functions are:

- 1000) Developing supportive or organizational arrangements and resources includes planning, managing, providing materials, resources, space. etc.
- 2000) Training refers to the teaching of new knowledge and skills, reviewing, clarifying.
- 3000) Providing consultation and reinforcement translates as promoting innovation use, problem solving.
- 4000) Monitoring and evaluation represents data collection, analysis, reporting and transferring data.
- 5000) External communication refers to informing outsiders.
- 6000) Dissemination means gaining support of outsiders and promoting use of the innovation by outsiders.
- 7000) Impeding includes discouraging or interrupting use.
- 8000) Expressing and responding to concerns includes complimenting, praising, acknowledging, complaining, reprimanding, etc.
(Hord, Huling & Stiegelbauer, 1983).

A preliminary analysis of these data, using the coding schema suggests several findings.

Intervention Findings

The interventions under examination are those identified by researchers as "critical," from the pool of those nominated by interviewees. In short, in the pool are those that were in the memory of the school people within a two

year boundary. What did they remember? What kinds of interventions were nominated (see Figure 1)?

Two thirds of the critical interventions had a 1000 function, Developing supportive organizational arrangements. Not only was this the case for all the schools as a whole (53 of 75), but the ratio also holds true for each pair of schools in the four districts: urban 14 of 18, suburban 11 of 19, rural 12 of 18, mid-size city 16 of 20. One-tenth (7 of 75) of the functions occurred in Training, the 2000 function. Six percent (5 of 75) were found in the 3000 function, Providing consultation and reinforcement. Four percent (3 of 75) occurred in 4000, Monitoring and evaluation, in 7000 Impeding, and in 8000 Expressing and responding to concerns. There was only one intervention in 5000, External communication and none at all in 6000, Dissemination. It is rather interesting that so few individuals cited training as important. Perhaps formal workshops to support change were not typically done, or were of limited value, or simply weren't remembered. Or, perhaps this is explained by Rutherford and Huling-Austin (1984), who report in another paper in this document on the types of changes occurring in high schools, that a relatively small amount of changes are being directed at influencing teacher's instructional procedures or the way teachers teach. This being the case, there is little need for staff development for the teachers.

What were reported were the 1000, Developing supportive organizational arrangement function activities. Perhaps the large number of these interventions to support change relates to the kinds of changes being implemented. Rutherford and Huling-Austin (1984) report in more detail about the types of changes that were occurring in the study schools. One third of these were in the Administrative/organizational changes category, which could reasonably be expected to require supportive organizational arrangement kinds

Figure 1
FUNCTIONS OF CRITICAL INTERVENTIONS
(n = 75)

<u>Function</u>	Urban District	Suburban District	Rural District	Mid-Size City District	Total
1000	14	11	12	16	53
2000	1	2	4		7
3000	1	3	1		5
4000		1		2	3
5000			1		1
6000					0
7000	2	1			3
8000		1		2	3
Total	18	19	18	20	75

of interventions. Because these organizational arrangement interventions were so frequently reported and identified, they were submitted to a more refined coding procedure (Hord & Hall, 1982) in order to understand more precisely what the action was (see Figure 2). The interventions most frequently done were those focused on three areas of Developing supportive organizational arrangements. These were policy making/rule making/major decision making; staffing or restructuring roles; and seeking or providing materials, information, space, other resources. These are the kinds of interventions that are needed to initiate and introduce change. At the initiating stage, making decisions and new policies would be typical actions for preparing for the change. Staffing for the change and procuring the needed materials and other resources would also accompany the introduction of the change. These interventions for initiating change apparently were done in the schools and thus reported. What may not have occurred were the two other areas of the Developing supportive organizational arrangements 1000 function, planning and managing (such as scheduling). Planning and managing are actions more likely to be taken to facilitate changes. These were the object of only a few of the nominated interventions. This analysis reinforces the hypothesis of Hall and Guzman that much initiating of change occurred in the schools but little facilitation was provided to support change.

In terms of content, what were some of these actions that the individuals in the schools remember as being effective and as contributing significantly to change? They will be described in the next section of the paper and discussed in light of some popular beliefs about high schools that are currently being espoused.

Figure 2
DEVELOPING SUPPORTIVE OR ORGANIZATIONAL
ARRANGEMENTS AND RESOURCES INTERVENTIONS
(n = 53)

A Policy/global rule/ major decision making	17
B Planning	2
C Managing (e.g. scheduling)	3
D Staffing or restructuring roles	15
E Seeking or providing materials, information, space, other resources	15
F Other	1
	53

A Mythology of High School Change

Myths, as a genre of story, were tales that ancient man used to explain non-understandable phenomena. Similarly, myths can be characterized as a figment of the imagination. In the popular and professional press, it appears that a number of high school change myths exist which may be explanations of what is not well documented or understood about life in high schools. Based on our preliminary analysis and impressions of the data, we think there may be cracks in some of the myths. Examples of effective interventions that were reported by the school people as affecting change efforts, and that challenge several of the current myths, are examined in this section.

Myth: High schools can't make significant change because they are constrained by bureaucratic district policies - or - a case for creative insubordination.

Picture a large, and once quite magnificent, high school building. Its interior hallways are bright with ceiling high murals on all the walls. The images of natural wonders, epic scenes of historical and folk heroes, or imaginative abstract representations contribute to the overall energy and appeal emanating from the walls. The color beckons and the shapes communicate warmth and caring and creativity. Not always was this so, and the wonder of the new vitality and climate that permeates the school, originating from the walls, is the paint. How did they come by it - gallons and gallons - and how did they get it on the walls? Interventions reported by teachers and administrators clearly hint that reinterpretation of district policies and guidelines made it possible.

To explain more, there was an urban summer recreational program on the school campus. The funds for the summer program mentioned nothing about expensive paint, although the walls of the school were in sad disrepair and "marked" with an accumulation of graffiti. A severe period of retraction did

not permit bright paint to be budgeted for walls. But the summer funds provided the stimulus for reinterpreting the summer program activities guide. It seemed, after all, that the critical paint purchasing intervention was thinkable in order that students and principal, some assistant principals and a few teachers could cooperatively engage in a summer community project that made good sense. Feverishly they transformed their first few yards of wall - designing and painting twelve to fifteen feet high murals isn't done in a moment - they proved what could be done. This was only the beginning of a long range project to change the campus and the climate of the school. It required the continuing resourceful interventions of procurement of a great deal of paint and other such stuff, scheduling and organizing for kids to climb on ladders on Saturdays and summers, rearranging resource allocations to make it possible.

And the effect of these "paint parties?" The faculty and students were charmed and a pride of place began to grow. The school and its climate were changing remarkably. But, still the community thought of the school as it was in its pre-change days. More reinterpretation was needed.

A critical request for supplemental resources was submitted. Of course, mention was not made that the resources were being sought for public relations purposes. Happily the request was granted and the role of a school public relations person was created and a teacher was reassigned to this role. Seeking the resources and assigning the teacher were supportive organizational arrangements interventions. These formed the basis for a significant public relations campaign in the local media, in which the school covered its own success stories and provided them to the press. Before this imaginative scheme was discovered the following year, it had the desired effect and the school was beginning to be seen in its new light, as a satisfying, secure and safe school place.

Should the school district's policies be violated and resourceful insubordination be applauded? This story is not meant to recommend, without careful consideration, such practice. A successful superintendent whom we know well has been heard to say, "If it's 'right,' take the risk and do it - but you sure as thunder better make it work, or you're a dead duck." It appears that the end may justify the means. It also appears that some degree of strangling district policy may be winked at, if the reason for so doing is sufficiently powerful.

Is central office policy an albatross that rides the shoulders of school administrators, blocking the "good works" that could be done? Or is it a myth that some school managers wear as a mantle to cloak their reluctance to take action? The constraints of bureaucratic district policies seem to exist especially where school leaders want to believe in them.

Myth: High school is a complex, complicated, loosely joined system which cannot be integrated into a comprehensive change effort - or - pulling and pushing it all together.

Everyone had a part in the action when they moved the freshman class to the high school campus. Everyone. And it was mainly a series of managing new arrangements interventions, and each one important to do. Department chairpersons in the high school arranged to meet and work with junior high ninth grade teachers to develop a ninth grade program of instruction. They worked out courses and classes. Concerted interventions were made to acquire the already seasoned ninth grade teachers to come along and help make the change, and teach the "new" high school classes. Space in the high school had to be restructured and assigned to accommodate 33 new teachers for the 700 new freshmen.

Integrating the new faculty was done through arranging and scheduling a party for old and new teachers. Meetings were organized by departments to

incorporate new teachers into the school at the department level. Department heads were responsible for translating the school's philosophy, mode of operating, priorities, and such to the new faculty. Parents were scheduled for a meeting and information provided to them regarding the change. These open forum meetings were designed also to gain parent support.

Counselors spent time with each feeder junior high helping students with schedules and providing an orientation to high school to make transition easier. High school student clubs went along to tell how it would be in the high school and to answer questions. New students came to the high school ahead of time to take tours of the building and get acquainted with the campus and administrators. High school student "buddies" helped new students find their lockers and their way around.

The budget was finessed and the school's teacher allocation redesigned to create the role of Ninth Grade Coordinator, a person who would visit in the eighth grades ahead of transition time, who would make himself known and familiar to students. He would assist the new ninth graders to become integrated into the student body by helping them find classrooms, operate their locks, and explain cafeteria procedures with the cafeteria manager during tours of the cafeteria. He visited classes, talked to students, observed lessons, checked on grades, dealt with attendance and students' personal problems, visited in students homes. He acted in all regards as someone the new students could come to.

The orchestration of all these elements requiring a multiplicity of interventions resulted in effective and efficient change. In this case, policy was not reinvented nor manipulated at the school level; in fact, the change was made in response to newly made district policy accompanied by a number of district interventions on the school to encourage it to get into

gear with the change. The interventions made in the school to implement the ninth grade focused on several of the types of Developing supportive or organizational arrangements and resources interventions (see Figure 2): planning; managing; staffing and restructuring roles; seeking and providing information, space and other resources that appear to be so crucial for successful change.

It's probably understating the case, but teacher after teacher expressed some astonishment that the change had gone, contrary to their expectations, exceedingly well. Anyone who had a view of the big picture was not really surprised. And yet there are those who maintain that an effort that must touch every teacher and every student in a sizeable (in this case, 2272 students) high school is not feasible. The proof of the chef's pudding is in the eating, as it were.

Myth: Departmental change can't be implemented because department heads have no real leadership base or influence - or - the power of persuasion or the power of a worthy program, or the combination thereof.

"As department head I can encourage, teach, lead, foster, but I cannot demand." Having thus stated the case, that's exactly what was done - leading, fostering, teaching, encouraging, in that order - preceded by recognizing students' difficulties in reading and by analyzing the secondary school reading program. Thus, because one of the department head's responsibility is to be The Source for the department, research findings and new and different approaches to teaching are typically sought and snared. Of all places, the "experience story approach" at the elementary school was looked at for another way to help high school youngsters read better. A second, and equally surprising, source was the local university professor of curriculum theory. Collaboratively a writing program was built on the assumption that writing

and reading are inextricably linked and the one would impact the other.

"A difficulty that speaks to how high schools work is I cannot now say, you will teach this." Having exercised leadership, the push now was to foster, teach, encourage. Half the teachers were persuaded to volunteer the first year and they were provided ten weeks of after school, hour long inservice in how to teach the program. "You can't give one three-hour shot and think you've done it. Training must be incremental and spread out and taught like you would teach anyone anything. Staff development is crucial." An experimental/control group study was done, with pre/post reading and writing scores of students as the dependent variable. The substantial differences in scores of the treatment group was celebrated and all but a couple of the remainder of the faculty received training and began use of the program. Now it's old hat and not new; it's an institutionalized part of the English program.

In Figure 1 can be found the function 2000 Training intervention that "made these teachers more competent and confident and the kids got more." Around the training were many other interventions that resulted in the provision of information, and material and resources. In this particular scenario, training was essential to help teachers in the department change their teaching practice.

Around the issue of departmental change, two myths are in contradiction. Much is heard, from individuals other than department heads, about the control of change by the authoritative, autocratic department heads, where change is conceived, born and spawned. The idea is that the locus of power resides in department heads and all change happens there. From the department heads' view, departmentwide change cannot really occur because the heads typically

don't have a power base. For those department heads who are able to implement change, they say they use the Patience and Persuasion approach. Here the power is in the value or goodness of the change being introduced and in the carefully designed interventions that are supplied to facilitate and support its implementation.

Where Are the Myths, Where is the Reality

It would appear that there are interventions, supporting change and contributing to management of the process, that are critical and sometimes surprising. Critical in terms of their significance and effect. Surprising in view of some of the popular beliefs about the prospects for change in high schools. How salient or potent are the exceptions to the myths? Or are the myths outworn and outdated? Or are there simply contradictory myths? A review of the current literature does not provide useful illumination to the questions.

Glimpses of The Current Literature

The period of time since 1982 is somewhat arbitrarily selected to define "current" in the current literature. In 1982 a number of scholars began to air reports and opinions about the prospects for high school change and its management. These authors share the common theme of disenchantment, while holding out hope and making suggestions for how change might be facilitated. Ducharme (1982) made a case based on four reasons why the high school would not be disposed to change. Firestone and Herriott (1982) maintained that instructional change at the high school level cannot occur through a management strategy of focused leadership at the principal level. They suggest that, even if the school is open to instructional change, because of the larger staff size, departmentalization, and diverse goals, the management

of such an enterprise cannot be engineered by the secondary principal. Berman et al (1982) conclude that others such as department heads may possibly take the lead to provide management. A policy, then, for high school change suggested by Purkey and Smith (1983) is to develop management strategies based on leadership for change from a variety of sources. For certain, a great deal more investigation is needed to provide illumination about the management of high school change and improvement efforts and how it may be done most effectively. We believe, unlike Ducharme, that there is already a positive climate for improvement and change, and that quite a lot is being done to facilitate its effectiveness in high schools. It is clear, in our data, that the principal can develop a menu, don the apron, and deliver a successful instructional change repast. What are the ingredients and who has to be in the kitchen? Perhaps, as Berman et al. (1982) suggest, department heads can play a more frequent key role.

Immediate Research Needs

From the recent literature and from high school change mythology come numerous explanations of why change is difficult and unlikely to occur as a comprehensive planned strategy in high schools. Indeed, can the hotel restaurant management model work for many or all high schools? Can some be managed as boarding houses or is this practical only in elementary schools? The data from our descriptive "drop in" study provide intriguing glimpses about what might be possible in managing high school change. Much begs to be learned. More understanding is needed regarding management strategies and how they are affected by school size, community type, faculty factors, student population, and how other contextual factors such as district size, and basis of and level of funding impact change management (Stiegelbauer, 1984). Many of these variables require longitudinal investigation in order to provide new insights

that will make the effective management of high school change a stronger possibility. Phase III of our High School Change Dynamics Study will be an intensive year-long investigation of the change process and how it is managed in a small number of selected high schools. We hope to shed more light on what is real and what is mythological. A question to be answered.

Tentative Suggestions for Consideration

In any case, the interventions reported in this paper that were employed to manage change are quite real and their implications may be summarized as a set of tentative guidelines or operating principles that change managers may wish to consider. Ideas about these follow, accompanied by brief discussion.

Seek forgiveness rather than prior approval. This principle can be useful if there is a great deal of bureaucratic red tape and restrictive guidelines that strangle change efforts. Those managers who find themselves entrapped in policies and procedures that tend to stifle action may wish to try this approach. Most certainly, do not tip your hand ahead of time, or ask questions that make it possible to be bound by the answers. Some risk is required.

Damn the disenfranchised department status and forge ahead. Of course, not quite that stridently, as the idea just may be overstated. In reality, it appears to us that in few cases is there any clout or real power to be wielded at the department level. What is equally clear is that some of the powerless people in the departments manage to make change in more subtle ways. Thus, change can be wrought at this level, but under such circumstances will require more time and perseverance. Keep trying.

Use staff development to cure terminal stagnation of instructional practice. Inservice training to support the introduction of new curriculum and other programs and practices is a typical strategy in the elementary

school. Seldom is staff development used in this way in the high school. Even though secondary teachers are subject centered experts, well developed and effectively delivered inservice can be a viable way to support change in classroom teaching practice. Of course, it must be relevant and seen as responding to needs - of teachers and subsequently, their students.

Create a new policy or position and rally the troops around. The idea is to get everyone attending to a common issue or concern. In several high schools we saw a focus being placed on litter and care of the building and grounds. When this campaign has been successful, use the constituency and communication channels that were built to focus on another dilemma that needs attention. Once the system is developed, making change happen again becomes easier.

Sneak upon the blind side and employ persuasive incrementalism. The guideline here is to start small with an agreeable, attractive proposal. After the school people buy into and own the initial change project, add to it as the effort progresses. Phasing in change prevents the participants from being overwhelmed at the outset. Important small changes can add up to a significant large change.

In Conclusion

No matter what approach is used, attention to the interventions for managing the change is vital. There is a host of options and an array of possibilities. The careful design or selection of interventions to support school faculty and staff as they change is an important responsibility of the change manager. These change management interventions can win or lose the effort.

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DISCUSSANT REMARKS

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I am going to try to give you a few random thoughts and that is really what they are. I would recommend highly that you get these papers and I hope you will, because there are a lot of narrative descriptions that people clearly couldn't talk about up here simply because of time. When you get the reports, you also need to think about them within the context of other secondary school research and to integrate the work. Don't try to think of this in isolation. I think right now we are at a point where we are just describing what's going on in high schools. I think it's unfortunate that some others have already chosen to make some decisions about what we can and can't do in high schools. That is probably jumping the gun a little, and I think we need the kind of descriptive work that these folks are doing.

Just a word about the study limitations; clearly in two days you are not going to get the kind of insights you need. They didn't get data on certain things relative to the innovation, like the degree of innovations, the quality, the impact, and the retention. I hope I can encourage them and they can encourage themselves in the in-depth study to look at those kinds of issues. Also, the issue that has a lot of interest to me is variability. The sample that they had, you have to remember, included half of the schools that were identified as changing schools and the other half that were identified as schools that were "typical". Now they presented most of their numbers in terms of averages and we all know that can be a little deceiving at times; so I think we need to look at outliers and the variability there. I would really like to see a presentation of that in comparison with the averages. In some of the papers you'll find that; you'll find a lot of specific examples.

The picture that emerged to me was one of a lack of role definition and a definite underutilization of roles. I was less taken with the kind of differences between the role of the principal, the role of the assistant principal, the role of the department head than I was with the fact that the roles are pretty much defined by the individuals. You have cases where you just simply don't have organizational norms that support a specific set of functions. Now I am not saying that is desirable, I am just saying that that seems to be the case at least in these schools. If you look at some of the other reports, it seems to be the case also. The kinds of changes that were being facilitated by these various roles is of interest to me. I think it was Bill that mentioned that 2/3 of them were in the area of developing supportive organizational arrangements. Well, that is kind of a grab bag category. What it points out under that though, when you read a little deeper is that a) most of those changes were not particularly wide in scope, and b) almost none of them had anything to do with people or instructional practices. Bill mentioned this. Rather, they had to do with things such as curriculum scheduling. Again, this work is not making quality judgments about how much of that is good and how much of that is bad. It's clear even though there's a lot happening, a lot of change taking place; it's the nature of the change that's just as interesting. We must also remember these are studies of what is, and we don't know the extent to which that can be altered. It's very easy to get lulled into saying things like, "Well, the department head--it's clear that they don't have power." Yet that happens to be the way it was in the

schools. That doesn't mean it has to stay that way. I think it has a lot to do with the fact that the roles are poorly defined. You found the principals who were getting things done by using the assistant principals, for example. I am not sure that's because they were assistant principals; it's probably because you had highly innovative principals who got the first person who was closest to them and that happened to be the assistant principal and brought them together. I would be willing to bet they also utilized others in the school in a similar fashion, given the resources they had and what they needed to get done. The picture that emerges is really a highly individualistic one. I am not sure that it says a whole lot about those roles and functions other than that they're not defined and we don't understand a lot about how they can interact.

I think there are three roles portrayed here. The first would be the originator of change, the person who comes up with the idea. The second one would be sort of the patron of change; just like a patron who supports someone, gives them the money and resources, but doesn't do the work. The third person would be the actual implementer, the person who is there on a day-to-day basis, providing ongoing support. They talk about those roles in the study that were very highly differentiated and they didn't overlap. I don't feel quite so confident in making that kind of a statement. I didn't see a lot of discussion of that particular topic. I guess the questions that came more to my mind was should they be the same person, should there be overlapping, and what kind of coordination can we do? I'd like to look in some of those "more successful" schools. I would also like to look at schools where those roles seem to be combined in various fashions. Maybe one person doing all three or a team of people doing all three, because I would suspect that even though they may be differentiated now, there is no articulation, no coordination across those three roles and therefore change becomes segmented and things like continuity and support systems don't exist.

Another interesting topic that kept popping up was the issue of autonomy vs. control. I am talking about the autonomy and control that the principal gives to, in some cases, assistant principal, department heads, mostly to teachers. If you look at the little anecdotes in those columns that Gene was reading about different principals, you can find that for both the more active principal and the less active principal a lot of cases of autonomy were given. However for the less active principal, it seemed to be just turning it over to teachers without any guidance; for the more active it was, "Okay, you can go as far as you can go, but I'm going to be watching you," but not in any kind of punitive sense. But it almost struck me that there was a difference between sort of totally free, unrestricted autonomy and what I would sort of call accountable autonomy--that is as long as you don't screw up and as long as you can provide evidence that what you're doing is reasonable then go ahead and do it. And I think that's very consistent, I mean that strikes me as a very positive mode from the standpoint of several things. I mentioned Judith Warren Little's work. She's done a lot on norms of experimentation and evaluation that exist in successful schools. That's what it is--you can try things, it's important to try things, you're encouraged to try things, but you've got to have an accountability system of evaluation so that you make sure you're not hurting kids, you're not hurting other teachers, you're not doing damage to the school. That kind of approach is also a very neat way to look at the whole issue of nomothetic vs. ideographic means, organizational vs. personal. It gives you a way to do both; it gives the person some

autonomy, but it still gives you the accountability as the building manager. It also has a lot of appeal--if we're going to talk about teaching and educational personnel as professionals, it seems to me that kind of accountable autonomy has got to be an element of professionalism. And unless we start looking at ways that we can encourage teachers to be professionals, to make decisions but at the same time know they can't do that just willy-nilly. The same holds true for principals, for department heads, whomever we're talking about. Unless we do that I think we're not going to do ourselves a lot of good in the long run. And I'd like to just look a little further at that, the extent to which that kind of thing happens in schools.

I liked some of Shirley's suggestions about how to proceed. Especially the one that intrigued me, and I think it's again consistent with a lot of other work that I've looked at, has to do building on success. I'm going to change her words; it's sort of starting small and building on success. Even if you have to start, in terms of changing, with something that's really mom and apple pie and you know a lot of people aren't going to argue about. I think a lot of times we start out tackling the most difficult problems first and because there's no process set up to deal with those, the implementation effort fails. And it may not be because the implementation was a bad idea but because if you've got this huge mountain in front of you, you tend to get overwhelmed by it. If you can start small with a small cadre of people, you can get some processes in place for problem solving, for who's going to do what, and for defining roles. If we could look at those and we can think about the ways that we can start dealing with those issues I think we will take a very large step. Let me stop here and let us hear from Freda Holley who is Assistant Superintendent for Secondary Education in the Austin schools.

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As Joe mentioned earlier, we have had a loving relationship with the work of this group on change, and for me that has been a very productive relationship. Let me say that I think that this theme of research is probably the more important strand of research that NIE has supported over the past 2 years because with its success really lies an ability to make a change in American education. The recent shift in looking at the school level of change over the former direction of looking at individual teacher-level of change has been very important because of a conviction that I've had that there are units of change in education that make a difference and there are units of change that really can't make a difference. Change at the individual-teacher level is not really something that can bring about major change in American education. You just can't get to enough teachers to make a difference. You must reach higher levels--the school is one important step up--in order to influence the direction of American education. You have to get at the system level to make a difference, and maybe even at the state level.

As I looked through these papers what happened was that I kept interacting with them from my own experience. They are topographic because they bring reactions from me about my own experience, and this piece of it is from my own background. Let me say that the first thing is the notion that the school itself is full of change. In fact, if you use metaphors, it is the world viewed from afar. If you get off on the moon and look back at the world, it looks like a very unchanging thing. If you get up close, however, you see hurricanes and tornadoes and all those really significant chaotic changes that are occurring on a daily basis. And, if you think about change in systems, it's one thing. If you were to change the orbit of the world, something really tremendous has to change in the entire universe of circumstances. You can only change the orbit if something cataclysmic happens with the sun or over enormous shifts in time. But, if you get up close, you can make changes at a close level that are significant and make a difference. I believe that in the end, every change stems from some individual. It is not a matter of your bringing in a system or changing a law. None of those things really result in actual change. It is some individual who initiates, sponsors, manages, and brings about change so that the individual is where it all ends up in the end. And that individual can come at any level. It may be a department head; it may be a teacher; it may be a principal; it may be a superintendent. It can be any one of those, and the change will be as big as the sphere of influence or the sphere of capability of that individual.

For example, we have in our district a principal, a very definite initiator principal who has brought about real changes at the district level because she has sponsored changes within her school, and her sphere of influence with the central office staff has promoted those changes up to a district level. Then they have been implemented and adopted, thereby bringing about changes through the total district. If a change arrives from the individual, what are the characteristics of the individual that make that happen? It looked to me like, as I have looked at agents of change and facilitators, that you have two

different things going on. For one thing--you can't have a change without someone having the charisma to create that change. The leader, the charismatic aspect, has to be there. If you have that and a change results, it may be a long-lasting change, a productive change. Or, it may be a force-of-will change brought about by that charisma.

One other thing that makes a difference--it is the management and the ability to organize the change that rides behind the charisma. In another, earlier set of papers from this work there was talk about the principal not acting in a school alone, but having someone who acted in conjunction with that person to make a difference. Superintendents, because they are operating at such a high level, will have the charisma and they will have the ideas about the changes they want to occur. But they will also need someone behind who, if that change is to be productive, is organizing and taking care of the change that happens. A good example of that for me is Billy Reagan, who is effective and is known as one of the major change agents in the state of Texas. He has that charisma that can convert the boards, convert the schools, convert the principals; but behind him he had a standard of people who are extremely well organized, fact finders, people who get the organizational aspects all together so that that change goes forward. In contrast, you do have other superintendents who are attempting to do their own management and carry it with the force of their own will. What I have observed, and I am not sure whether it is idiosyncratic to the particular superintendents that I observed or if it is some kind of fact, is that they are generally, not as successful unless they can release that organizing backup. They don't have the time to make sure that that change occurs. I suspect that the same thing is true at the principal level. One of the discoveries for me working in my role last year is that the high school principal is not someone who spends a lot of time in their building. So, I suspect that at the building level, they are operating pretty much as a superintendent in that they carry, by the force of their position, the change in the building. But they have so little time in that building that if they didn't have good backup from assistant principals or somebody in that building, that change is not likely to occur in a very productive way.

I find it interesting that someone mentioned the fact that in the schools that were very active, there seemed to be a team-kind of relationship with assistant principals and others who could probably carry out that function at the school level. Another kind of reaction that I had to Bill's paper on the areas of change in CBAM's own context was that I have come to appreciate the role of some unexpected areas in the high school. Scheduling was one of those real interesting roles to me because I discovered a lot about scheduling in the past year. You can't think of any kind of more routine change in a system than bringing in computer scheduling. It sounds as if it is really of no significance. However, scheduling is an example of something routine that can change the entire concepts of the school. Scheduling is something that is a real power source in a high school. A person who manages the schedule--and sometimes it can be an assistant principal--has great power. I have seen some situations in which that person who has control of that strategic item actually usurps the power in the building because scheduling has all these implications. If you control scheduling, you can reward teachers by scheduling their off periods at the right time, you can control class sizes because the way classes are set up against each other determines whether your honor students can be enrolled in band and some other things or not. And if

you get someone who really loves to use that power, it is interesting what they can do in the context of a high school with that very mechanical feeling of power. Some of these changes within the context of the school can be sleepers in terms of their ability to be instruments and channels of change. If you have principals who are really trying to control their building, they will have very good control over this function via the control of the assistant principal or whomever.

Now, the other thing is that the assistant principal role is a very important role in a high school. I do think that the individual bringing about change can be any one of those at any level. It is simply the definition, the sphere, and the scope of that change that is defined by their role. An interesting thought to me is what are the interactions of these different types of persons with the other types of persons in the change process. Suppose, for example, that we have a superintendent who is the initiator type. What happens with a change when the superintendent is the initiator type and the principal is also the initiator type? Do those two get into a conflict or do they support each other? Does the initiator principal feel constrained by the types of changes that are forced on him by the higher level initiator? Would a superintendent, for example, who was set on changing his district do better to find a manager type who could then manage that at the building level and have it work? Or would he, in fact, do better to have initiator people? I am not sure what the answer is, but it is certainly an interesting dilemma. And by the same token, how is the third person interacting with the person who is concentrating on behavior. What relationship do you have when you have three levels--initiator superintendent, initiator department head, and initiator principal? I think you'll have some interesting interactions in that whole process. At least these papers are very productive in terms of making you think about the whole process. I think that only at the district level can NIE begin to make a real impact on American education.