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ABSTRACT

This report is part of a research series on roles of participants in high school change. Investigators administered interview questions to 380 teachers of 18 selected high schools in 9 sites geographically dispersed across the nation. From taped interviews, 54 were chosen for study of teachers' roles in school change, their reactions to change, and factors that influenced those reactions. The 54 teachers reported a total of 155 changes that had influenced them during the previous two years. Data indicate that high school teachers are more likely to be recipients than initiators of change. As individuals working collaboratively, teachers were responsible for initiating 28.4 percent of changes, whereas 71.6 percent were begun by school administrators or sources outside the school. In their reactions to changes, teachers were more likely to be positive than negative, thereby invalidating the common assumption that teachers are resistant to change. Investigation of influences on teacher reactions to change revealed that source of change was the most significant factor. This suggests that future research should identify the role teachers can and should assume to enhance school improvement efforts. (CJH)

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CHANGE IN HIGH SCHOOLS:
ROLES AND REACTIONS OF TEACHERS

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Change in High Schools:
Roles and Reactions of Teachers^{1,2}

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For the past two decades the most certain and consistent feature of American public schools has been change. It would be difficult, if not impossible, to find a school that has not been engaged in at least one, and usually more, change effort every year for the past 15 to 20 years. In fact, change has become a status symbol for some districts. This fact was vividly portrayed by the public relations brochure of one district that described 16 recent or current changes in the schools of that district, as an indicator of the quality of the educational system.

While 16 recent or current changes may seem excessive, it is not at all atypical for schools to be engaged in a number of changes at the same time. During the past few years, the flow of changes into schools has slowed, but it certainly has not ceased. Variety has marked these changes as collectively they have focused on virtually every facet of school and schooling. Yet, amidst this variety there have been several commonalities.

Most of the changes have been initiated in direct or indirect response to real or perceived societal expectations. After Sputnik there was great

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emphasis on science and math, followed (not necessarily sequentially) by attention to the disadvantaged learner, the special needs of gifted and talented students, bilingualism, greater student freedoms and choices, restricted student freedoms and choices, and "back to the basics," which includes a renewed focus on math and science as well as communication skills.

Linked with the response to societal expectation is a second common element. That is, most changes have as their ultimate target the student. In one way or another they are intended to have a beneficial influence on students.

A third commonality is that teachers are the intermediate target of changes and the ones initially impacted by most of them. A number of studies have verified the significant impact and influence of change on the concerns of teachers (George & Rutherford, 1980; Hall, 1976; Hall & Rutherford, 1976). Teachers, in turn, represent a crucial link in any effort to change schools. "Educational change depends on what teachers do and think -- it's as simple and complex as that." This statement by Fullan (1982, p. 107) is hardly subject to dispute. Teachers are crucial to change, but what is their role?

Fullan concluded that " . . . because of their cultural conditions and practicality concerns, most teachers do not take the initiative to promote change beyond their own classroom" (1982, p. 119). Consequently, most changes that enter schools do not come from teachers but from other sources such as school administrators, district office personnel, or state or federal officials. These conclusions present a clear picture of the teacher being primarily a recipient of change rather than an initiator of change. This means that in a typical change process changes are "handed down" to teachers from some "outside" source, and the teachers are expected to "make them work."

Changes that are "handed down" to teachers are often referred to as

mandated changes. That term is not used here because mandated means or infers the change is officially required. Actually, many "handed down" changes seem to "float" into the schools. Teachers don't know from where the changes came. Why, if, or when they are to start using the changes and how they are to be implemented. Under these circumstances, teachers often do not perceive the change as mandatory.

This depiction of teacher involvement in change would appear to be accurate for elementary schools which have been the target of the bulk of change research. However, comparatively little is known about the role of teachers in charge in high schools. Yet, there is agreement that high schools and elementary schools are different. One difference often noted is that high school teachers view themselves as experts in their field; thus, they are more autonomous than elementary teachers. The existence of subject area departments in high schools represents another major difference. Many believe the locus of power and decision-making resides in the departments.

Because of differences between elementary and high schools, are the roles of high school teachers in change different from those of elementary teachers? Will teachers be active in the initiation of changes for school improvement? Finding answers to these questions about the role of high school teachers in change was one priority in a national study of American high schools (Hall, et al., 1984). Findings from that study related to the role of teachers in change and their reactions to change are reported in this paper.

Purpose

An earlier paper (Rutherford & Huling, 1984) reported the kinds of changes that had recently occurred in the high schools and the units involved in change -- individual teacher, department, school, district, or statewide.

This paper continues the investigation of change in high schools but with the focus on teachers and their role in and reaction to change.

Specifically, the paper addresses three questions:

1. What was the source or impetus of changes that influence or have the potential to influence individual teachers? Of the total number of reported changes, how many were: a) initiated by an individual teacher; b) initiated through the collaborative efforts of teachers; or c) came from other sources such as local school administrators, school district administrators, or state or federal impetus?

2. Is there a relationship between the source/impetus of change and teachers' reaction to the change?

3. Are there other factors in the change process that are related to teachers' reactions to change?

As will be noted in the methodology section that follows, the study findings are based on interview data. Thus, the answers to these questions represent teacher perceptions rather than observed behaviors.

Methodology

The nature of the changes occurring and the factors which influence the change process in different high schools across the nation has been the focus of research conducted by the Research on the Improvement Process (RIP) Program at the Texas Research and Development Center for Teacher Education (Hall, et al., 1984). The High School Study described the types of changes taking place in sample high schools, the management of change efforts, and the key situational factors influencing these efforts. Rather than starting from a preconceived notion of what the high school was or should have been, the RIP High School Study was based on qualitative, descriptive data of change as it

occurred in a high school. Each high school visited represented a unique set of information.

This study of change in high schools was planned to cover a range of schools and situations over a 3-year period. Phase I, conducted in 1982-83, was an exploratory effort in which researchers visited 12 selected sites across the United States 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, was a descriptive investigation of 18 selected high schools in nine sites geographically dispersed across the nation. The study is currently in Phase III, an intensive year-long investigation in a small number of selected districts to determine how the change process is managed in high schools and how that compares with change management in elementary schools, with special emphasis on the role of district office personnel.

This paper presents data from all 18 Phase II schools. These schools were located in sites encompassing 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. In all except the rural setting, two high schools were studied in each site. One high school each from two comparable communities was selected for the rural site.

A sample of taped teacher interviews was drawn from all teacher interviews completed in Phase II (n=380). Three taped teacher interviews were selected from each high school (n=54). Two criteria for tape selection were specified: (1) the teacher must not be in his/her first year at the school, and (2) each of the teachers within a school was drawn from a different subject area department. Two researchers divided the tapes for analysis after establishing interrater reliability.

Listening to each tape in its entirety, the researchers recorded data following an identical scheme (Figure 1). Only those changes which had occurred during the past 2 years were recorded and analyzed. Included were those changes which influenced or had the potential to influence teachers. If an individual teacher made a change which touched only his/her own classroom, i.e., added new materials to a unit or changed the order in which content was introduced, it was not included in this analysis. This was done for two reasons. First, the taped interviews did not thoroughly probe for such changes. Second, the intent of this report was to determine to what extent teachers were involved in initiating changes that influenced the school beyond their classroom.

After all the tapes had been analyzed, the researchers compiled the data from the tapes. Information from each district was synthesized so changes were enumerated only once, but multiple reactions to the same change were maintained on the data reduction sheets after all screening was completed. If the multiple reactions differed, they were coded as Mixed. A total of 155 changes remained for analysis.

Data Reduction

One part of the interviews identified how many and what kinds of changes teachers had been involved with during the past 2 years and elicited information about the purpose, source, and scope of the change. In data reduction, a first step was to determine whether the source or impetus for the change came from teachers or some other source. If it was teacher initiated, the next step was to determine if it was an individual teacher or two or more teachers working collaboratively. The code sheet was marked accordingly.

When the source or impetus for the change was not teachers, it was coded "Others," and an effort was made to pinpoint that source. As will be noted in

the findings, many times teachers did not know the source. Teacher responses led to the 11 subcategories of Others under Category 13 in Figure 2. With the exception of the subcategory context, the others are self-evident. An example of context as a source of change would be a teacher who reports increased class size this year (the change) due to rapid population growth in the community and the school (the source/impetus).

Here it should be noted that many times when changes are initiated by Others, teachers are involved as collaborators with the Others. No attempt was made to capture these data since the focus of the study was on teacher-initiated versus other-initiated changes, not on collaboration.

Once the source of change was established, teacher reaction to the change was coded as being Positive, Negative, or Neutral. Positive reactions were reflected in statements such as, "It is good," "I am pleased with the change," "Teacher input is listened to and this change is a good example of that," or "I only wish we would have made this change a long time ago." Negative reactions were included in comments such as, "Who needed it; it only makes work harder," "Had anybody asked teachers, they would never have made this change," or "The whole thing is just a mess and a nuisance to me."

When teacher reactions were positive or negative they were typically expressed in clear and certain terms such as those above. In those cases where teacher reaction was not evident or when the teacher stated he/she had no particular feeling about the change, it was coded as a neutral reaction. It is possible that some nonexpressions of reaction were more a reflection of indifference than neutrality, but no attempt was made to develop such a distinction.

To respond to the third stated purpose it was necessary to conduct an Expanded Analysis of Changes (Figure 2). All changes are not equal, of

Figure 2

Taxonomy for Expanded Analysis of Change

Nature of change

Responsibility to implement	Degree of change required of teachers	Requirements for use
-----------------------------	---------------------------------------	----------------------

- | | | |
|-------------|-------------------------------------|-------------------------|
| 1. Required | a. major
b. moderate
c. minor | d. rigid
e. flexible |
| 2. Optional | | |

Primary target of change

3. Teacher behavior/practice

- a. to correct a deficit
- b. to enrich/improve
- c. N/A or unknown
- d. replacement

4. Curriculum/course schedule

- a. to correct a deficit
- b. to enrich/improve
- c. N/A or unknown
- d. replacement

5. Student performance/practices

- a. to correct a deficit
- b. to enrich/improve
- c. N/A or unknown
- d. replacement

6. Organization, procedures/procedures, administration

- a. to correct a deficit
- b. to enrich/improve
- c. N/A or unknown
- d. replacement

7. Contextual factors (class size, school climate, school/community relations, teacher benefits/welfare)

- a. to correct a deficit
- b. to enrich/improve
- c. N/A or unknown
- d. replacement

Figure 2 Continued -- Taxonomy for Expanded Analysis of Change

Scope of Change

8. Affects teachers and students

- a. all
- b. many
- c. portion

9. Affects students primarily

- a. all
- b. many
- c. portion

10. Affects teachers primarily

- a. all
- b. many
- c. portion

11. Primarily affects others (community, administrators, etc.)

- a. all
- b. many
- c. portion

Source/Impetus

12. Teacher(s)

- a. individual
- b. collaboration

13. Others

- | | |
|--------------------------------|-----------------------|
| a. local school administrators | g. parents/community |
| b. district office | h. unknown |
| c. superintendent | i. context |
| d. state | j. private foundation |
| e. federal | k. accrediting agency |
| f. students | |

Teacher Reaction

- | | |
|--------------|-------------|
| 14. Positive | 16. Neutral |
| 15. Negative | 17. Mixed |

course, but how do you assign significance to a single change? We concluded that no one scheme of analysis would be sufficient; rather, the scheme must "fit" the intended purpose. In this study the purpose was to investigate those factors that might relate to teachers' reactions to change. The literature on change (Fullan, 1982; Hall, et al., 1984) and our own research experiences led us to believe that the categories in the Expanded Analysis of Changes were most likely to be related to teachers' reactions to changes.

To reduce the size of the task, a random sample of 100 changes were chosen from the total sample of 155 and subjected to the expanded analysis. Complete and final processing of these data has not been accomplished at this time, but initial findings are presented in the next section.

Findings

Question 1: Of the total number of reported changes, how many were initiated: a) by an individual teacher; b) through the collaborative efforts of teachers; or c) came from a source/impetus other than teachers?

A summary of the findings related to this question is presented in Table 1.

Approximately 71% of all the changes came from a source other than teachers. Of the almost 29% of the changes initiated by teachers, 18% were the result of collaborative teacher efforts, and an individual teacher was the impetus for 10% of the change.

To gain a more precise understanding of the source or impetus of change within the Others category, the various sources were separated into the classifications shown in Table 2. These classifications emerged from the data. In 34% of the cases, teachers did not know the source of the change they described. It is possible that some of these changes came from teachers rather than others, but there was no way to know that. Among the known sources, district administrators (31.6%) and local school administrators (23.4%) were those most frequently identified. Collectively students,

Table 1
Source of Changes

	<u>Number of changes</u>	<u>Percent of total</u>
Individual Teacher	16	10.3
Collaboration of Teachers	28	18.1
Others (including contextual)	111	71.6
	<hr/>	<hr/>
TOTAL	155	100.0

Table 2
Changes with Others as Source

<u>Source</u>	<u>Number</u>	<u>Percent of Total</u>
Local School Administrators	26	23.4
District Administrators	35	31.6
Outside district	5	4.5
Parents/Community	2	1.8
Students	2	1.8
Contextual	3	2.7
Unknown	38	34.2
<hr/>		
TOTAL	111	100.0

parents/community, context, and outside district sources accounted for only 11% of the changes.

When all the known sources were considered (Tables 1 and 2), district administrators were the impetus for the largest number of known changes (35), followed by collaborative teacher efforts (28), local school administrators (26), and individual teachers (16).

Question 2: Is there a relationship between the source/impetus of change and teachers' reactions to the change?

Data in Table 3 show the pattern of teacher reactions to change. More than half (52.3%) of their reactions were positive, with the next greatest number being neutral (24.5%). Only 17.4% of teacher reactions were negative. When teacher reactions were analyzed by source, some distinct differences were found (Table 4). When the source of the change was an individual teacher (n=16) or teacher collaboration (n=28), positive teacher reactions were significantly greater (87.5% and 85.7%, respectively) than either Negative (6.25% and 7.15%) or Neutral (6.25% and 7.15%) responses. In contrast, when the source of change was Others, teacher reactions were 38.7% Positive, 21.6% Negative, 31.6% Neutral, and 8.1% Mixed. In summary, it was found that when the source was Others, a smaller percentage of teacher reactions were positive than when the source was teachers, either as individuals or through collaboration.

A prevailing belief exists that teachers are more receptive to change when it comes from the bottom up rather than from the top down, but rarely are data presented to support that contention. These data provide concrete support for the claims, at least as it pertains to high school teachers. However, it should not be overlooked that when the change was top down (Others as source), teacher reactions were Positive more than 52% of the time. It

Table 3

Teacher Reactions to Changes

	<u>Number</u>	<u>Percent</u>
Positive	81	52.3
Negative	27	17.4
Neutral	38	24.5
Mixed	9	5.8
<hr/>		
	155	100.0

Table 4
Teacher Reaction to Change by Source*

Source/Reaction	Positive		Negative		Neutral		Mixed		Total
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
Individual	14	87.5	1	6.25	1	6.25	0	0	16
Collaboration	24	85.7	2	7.15	2	7.15	0	0	28
Others	43	38.7	24	21.6	35	31.6	9	8.1	<u>111</u>
									155

* Percentages based on row totals

should also be remembered that out of the total number of changes in the sample (n=155), in only 17.4% of the cases did the teachers react negatively.

Questions 3: How are other factors in the change process related to teacher reactions to changes?

The subsample of 100 changes was analyzed using the factors presented in Figure 2. Data derived from that analysis are displayed in Tables 5-8.

Out of the 100 changes 58 were Required and 42 were Optional (Table 5). Required changes were those teachers perceived or knew to be required of them. If the teacher felt she/he had an option of using or participating in the change, it was coded as Optional. When teacher reactions to Required and Optional changes are compared (Table 5), required changes had a lower percentage of positive reactions and a higher percentage of negative and neutral reactions than Optional changes. When the change was perceived as optional, two-thirds of the teachers reacted positively and fewer than 5% had a negative reaction. When the change was required, the positive and negative reactions were 41.4% and 25.9%, respectively.

Relationships between the degree of change and teacher reactions are displayed in Table 6. Each change was coded as requiring a Major, Moderate, or Minor degree of change. This was based on the amount of change the individual teacher felt they had to make in their practices. An example of a minor change was a teacher beginning use of a new textbook that didn't differ much from the old one. When a teacher had to adjust to a revised scope and sequence that was introduced into the English curriculum, that was coded as a moderate change. A change coded as Major was the expectation that the teacher would change her classroom teaching procedures to pattern them after Madeline Hunter's instructional approach.

In the interviews teachers were not asked directly to indicate the degree of change they felt was required of them, so the coding was based on the

Table 5
Reactions to Required and Optional Changes*

	Positive		Negative		Neutral		Mixed		Total
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
Required	24	41.4	15	25.9	18	31.0	1	1.7	58
Optional	28	66.6	2	4.8	10	23.8	2	4.8	42

* Percentages based on row totals

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Table 6
Degree of Change and Teacher Reactions*

	Positive		Negative		Neutral		Mixed		Total
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
Major	1	33.3	1	33.3	0	0	1	33.3	3
Moderate	13	43.3	9	30.0	8	26.7	0	4.8	30
Minor	38	56.7	7	10.4	20	29.9	2	3.0	67

21 * Percentages based on row totals

various statements the teachers made about the change. Although the degree of change was frequently evident from teacher comments, the reader is cautioned to be aware of the inference involved in these ratings.

When considering the data in Table 6, it should be noted first that more than two-thirds of the 100 changes (n=67) required only minor changes on the part of the teacher, and only 3 required a major change. As the degree of change moves from Major to Moderate to Minor, the percentage of positive reactions increases. Inversely, the percentage of negative responses decreases. When the degree of change was Moderate or Minor, approximately one-fourth of the reactions were neutral.

Table 7 presents the data comparing requirements for use of the change with teacher reactions. When teachers perceived that they must use or implement the change in a particular manner, it was coded as a Rigid requirement for use. If teachers felt they could adapt the change, then it was coded as a Flexible requirement. When the requirement was Rigid, the percentage of positive reactions (47.2%) was somewhat less than when the requirement was Flexible (57.4%). For negative reactions, the pattern was reversed. Rigid requirements elicited a much higher percentage of negative reactions (26.4%) than did Flexible requirements (6.4%). Neutral reactions for the two use categories ranged from 24.5% (Rigid) to 31.0% (Flexible) of the sample.

Targets of change and teacher reactions are the final set of relationships reported in this paper. Data are displayed in Table 8. No doubt most changes that occur in a school have a ripple effect that cause them to touch many persons and levels within the school. However, for this study each change was coded according to the unit that would be first and primarily affected, e. g., student performance/practice is the first and most immediate

Table 7
Requirements for Use and Teacher Reactions*

	Positive		Negative		Neutral		Mixed		Total
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
Rigid	25	47.2	14	26.4	13	24.5	1	1.9	53
Flexible	27	57.4	3	6.4	15	31.9	2	4.3	47

* Percentages based on row totals

Table 8
Target of Change and Teacher Reactions*

	Positive		Negative		Neutral		Mixed		
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
<u>Total</u>									
Teacher behavior/ practice	3	25.0	4	33.3	4	33.3	1	8.4	12
Curriculum/ Course Schedule	21	60.0	4	11.4	9	25.7	1	2.9	35
24 Student performance/ practice	15	71.4	3	14.3	3	14.3	0	0	21
Organizational/ Administrative	9	34.6	5	19.2	11	42.3	1	3.9	26
Contextual	4	66.6	1	16.7	1	16.7	0	0	6

* Percentages based on row totals

target of a new school attendance policy. Contextual factors are a bit more elusive but nonetheless real. For example, a teacher reports that the climate in the school is better than it has ever been before, and she feels it is due to the change in the student body and greater school success in athletics. In this case the target of the change is contextual since the overall climate (context) of the school is the first factor impacted.

In the target data (Table 8), of the 100 changes only 12 were targeted first at teacher behavior/practice. When changes were targeted to teachers, that drew a lower percentage of positive responses and a higher percentage of negative responses than did any other targets. The teacher target also drew the second highest percentage of neutral responses.

Teacher reactions to changes targeted at Organizational/Administrative were 34.6% positive, 19.2% negative, and 42.3% neutral. When changes were targeted to Curriculum/Course Schedule, or Student Performance/Practice, approximately two-thirds of teacher responses were Positive and less than one quarter were Negative.

Summary and Discussion

As a part of a national study to investigate change in American high schools, 380 high school teachers were interviewed. From these taped interviews, 54 tapes were selected for study of the role of teachers in school change, their reactions to changes, and the factors that influenced those reactions. The 54 teachers reported a total of 155 changes which had influenced them in some way during the previous 2 years. These changes formed the basic data base for this analysis.

A first purpose of the research was to determine to what extent teachers are initiators of changes that have influence outside their own classrooms and

to what extent changes are "handed down" to them. Teachers, as individuals or working together collaboratively, were responsible for initiating 28.4% of the changes, while 71.6% were initiated by local school administrators or sources outside the school. These data indicate that high school teachers are more likely to be recipients of change than to be initiators of change. These findings seem to confirm Lortie's (1975) conclusion that teachers focus more on their individual responsibilities and less on the school as a whole. Whether it is feasible and desirable for teachers to be more involved in the initiation of change is a question that needs to be addressed in future research.

In their reactions to changes teachers were much more likely to be positive than negative. Their response was Positive to 81 changes, Negative to 27 changes, Neutral to 38 changes, and Mixed in 9 instances. Thus, in 77% of the cases, teachers had a Positive or Neutral reaction to the changes they had experienced during the previous 2 years. It is possible that some of the Neutral responses were an indication of indifference and should be grouped with the Negative responses. If, for purposes of speculation, the 38 Neutral responses were assigned equally to the Negative and Positive columns, the Positive responses would still be much larger in number. In relation to school change, there seems to be a common assumption that teachers are quite resistant to change. These data do not support that assumption.

Five factors were investigated as possible influences on teacher reactions to change: 1) source of the change; 2) required or optional change; 3) degree of change; 4) requirements for use; and 5) target of the change. Data from these factors indicate that to develop the greatest number of positive teacher reactions, the changes should be initiated by teachers, use should be optional (rather than required), use should involve only a minor

degree of change, the requirement for use should be flexible rather than rigid, and the target of the change should be some group or thing other than teachers. When change was initiated by someone other than teachers, was required, called for moderate or major change on the part of the teacher, and stipulations for use were rigid, teachers were more inclined to have negative reactions.

Of the five factors investigated, the one that had the greatest influence on teacher reaction was the source of change. When change was initiated by teachers, their reaction was positive approximately 86% of the time. When change came from other sources, teachers reacted positively only 38% of the time. This might appear to be a "so what" finding since it is a commonly held belief that teachers are more receptive to changes when they participate in their development. But there is more to the issue. True, teachers react more positively to changes initiated by colleagues, but it is also true that in 77% of the cases teachers react either in a positive or neutral manner to changes that influenced them. Furthermore, some of the negative reactions are responses to teacher initiated changes. This suggests that future research and development in high school change should not focus on reducing teacher negative reactions to change, for they are already fairly limited. A more important issue to pursue is to determine what role teachers can and should assume that would enhance school improvement efforts.

The involvement of teachers in change presents somewhat of a dilemma. Teachers are more satisfied with changes they initiate, but they do not initiate many changes that influence the school beyond the classroom. Fullan (1982) concludes from his review of research, ". . . that the culture of the school, the demands of the classroom, and the usual way in which change is introduced do not permit, point to, or facilitate teacher involvement in

exploring or developing more significant changes in educational practice" (p. 120). Perhaps this explains why high school teachers do not initiate more changes.

This study focuses on the role of high school teachers and their reactions to change, however, change strategies cannot be established solely on the basis of teacher reactions. Actual use of the change is essential if it is to have influence on school improvement. This means the change must be implemented and institutionalized.

Miles (1983) has found that successful institutionalization is dependent on a set of conditions or factors that are somewhat different from the factors associated with positive teacher reactions to change. These factors include strong administrative commitment to the change which leads to pressure and support for the change effort. Additionally, institutionalization is greatly enhanced if the change is mandated rather than left optional. Finally, changes in the organization may be needed to protect and stabilize the change.

The responsibility of those who would facilitate change in high schools is to utilize strategies that attend to teachers in a personalized way and, at the same time, provide for implementation and institutionalization of change.

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