The paper reports findings of a three-year longitudinal study of high school student social and political attitudes. The hypothesis was that openness of social studies classroom climate would be related to change in social and political attitudes toward school and, to a lesser extent, to change in general social and political attitudes. Attitude data were collected each spring from students in ten midwestern high schools from March 1974 to April 1976. The four basic attitudes were trust, integration, confidence, and interest. Classroom climate was assessed through student perceptions of three characteristics: frequency of controversial issues exposure, range of viewpoints encouraged, and openness of student opinion expression. Each climate variable was found to be related directly to each school-related variable for the three-year period, with more open perceived classroom climate associated with more positive school attitudes of trust, integration, confidence, and interest. Overall across-time attitude trends show a decrease in political confidence, possibly an effect of the Watergate scandal. Implications of the study are that controversial issues should be included in social studies curricula, and that teacher objectivity enhances positive student attitudes. (Author/AV)
Social Studies Instructional Factors Causing Change
in High School Students' Socio-Political
Attitudes Over a Two Year Period

Lee H. Ehman
Indiana University

INTRODUCTION

This paper reports findings from a three-year longitudinal study of high school student social and political attitudes. The problem addressed in this paper is: What factors in social studies instruction appear to cause change in these student attitudes?

Curriculum Materials and Programs

Different perspectives on this problem can lead to different research questions. One can examine the effects of curriculum materials on student attitudes. This kind of research has been reported in the literature. For example, Button (1974) found that a special four-month government unit increased political efficacy and knowledge, while the effects on political cynicism varied by race of student, with blacks more cynical than other groups. Zellman and Sears (1971) found that a special social studies program designed to teach a sophisticated view of political conflict to 5th through 9th graders did increase students' acceptance of political conflict and tolerance for

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civil liberties. Liebschultz and Niemi (1974), in studying the effects of a special program aimed at increasing self-esteem of disadvantaged 2nd through 8th grade youth, found mixed results. The curriculum was found to temper idealism and to foster realism, but these effects disappeared by grade 6. Patrick (1971) found no impact on political attitudes of students involved in a field test of the American Political Behavior text materials.

Teacher Attitudes

Another line of questions would flow from the hypothesis that teacher attitudes, transmitted in the social studies classroom, affect student attitudes. Jennings, Ehman and Niemi (1974) showed that the congruence between student and teacher attitudes was very small, while the student and parent congruence was considerably higher, although still somewhat modest in strength. They reasoned from this evidence that the direct impact of teacher political beliefs and attitudes on students is nil. Marker (1970) and Silvis (1972) both bring contradictory evidence to this generalization, however. Marker (1970) studied twenty teachers pilot-teaching the American Political Behavior materials. He found that year-end post test scores of students in the low teacher dogmatism group showed greater political interest than those with more dogmatic teachers. Political efficacy and cynicism, however, showed no similar influence. Silvis (1972) studied the impact of teachers' attitudes on student attitudes toward economics and civil liberties and found that both teachers and the student peer group exerted influence in both directions on students' economic and civil liberties attitudes.
Classroom Climate

The single most striking perspective gained from a study of the political socialization literature on the impact of classroom level factors is, however, that the "classroom climate" established by the teacher is a key influence. Torney, Oppenheim and Farnen (1975), in reviewing their findings from a ten-nation study of the effects of schools on political attitudes, conclude that

On the whole, the results showed that specific classroom practices were less important than what is often called the "classroom climate"; more knowledgeable, less authoritarian, and more interested students came from schools where they were encouraged to have free discussion and to express their opinion in class. But students who have reported having frequent political discussions with teachers were not necessarily more democratic in their attitudes. (p. 18)

Some specific factors appearing to be related to low student authoritarianism were 1) encouragement of independence of opinion expression; 2) infrequent participation in patriotic rituals; 3) emphasis of Non-Western cultures in social studies classes; 4) infrequent use of printed drill; and 5) willingness of teachers to discuss sensitive issues in class. These same factors appear to be related to student participation in political discussions, both in and out of school. It was only classroom climate, however, that appeared related in a positive way to all of the desired civic outcomes under study.

Grossman (1974) reports results both confirming and conflicting with these generalizations. In this study of high schools, of the factors that were related to tolerance of dissent, the most important were:

1. Perception of student freedom to express views in class
2. Closed school environment
3. Strict school rules
4. Number of courses taken in which controversial issues were often discussed.

Ehman (1970b, 1972) reported a longitudinal study of ten high school social studies teachers and 100 students. He observed that a very low
proportion of classroom verbal interaction is spent in a "normative" mode during lessons involving discussions of controversial issues. But for those classrooms in which above average proportions of time are spent in the normative mode, students are likely to change political attitudes of cynicism and efficacy. In the other report of this study (Ehman, 1972), it was found that the number of semesters of social studies classes taken was positively related to increases in political efficacy, as was exposure to discussion of controversial issues. These findings, then, support those of Grossman and, to a certain extent, those of Torney, Oppenheim and Farnen. Classroom climate and the treatment of controversy appear to be salient classroom variables when considering attitude change.

Long and Long (1973) cast some doubt on this picture, however. They found a low negative relationship between amount of discussion of controversial issues and political efficacy, and a low positive relationship with political cynicism. Vaillancourt (1972) supports, in part, the earlier evidence, however, by finding a positive relationship between efficacy and student perceptions of teacher openmindedness, one ingredient of classroom climate. She failed to find a relationship between amount of controversial issues discussion and political efficacy, however.

Hawley and Cunningham (1975) and Hawley (1976) reported an extensive study of the impact of classroom climate variables on student political attitudes. Classroom climate was measured both by student perceptions and through direct observation of classroom verbal interaction. Results from these two studies show no relationship between two observed dimensions of politically relevant teacher behavior, (teacher emphasis on authority and control of classroom events), and political efficacy and authoritarianism of students. But these
observed factors were related to political cynicism, so that the more open
the classroom climate, the lower the cynicism of students. The relationship
was not statistically significant, however, so little confidence in this last
finding is warranted. Student perceptions of teacher fairness were related to
student cynicism so that the more fair the teacher, the less cynical the
student tended to be. Although the overall findings from this study are less
clear-cut than suggested in this brief summary there is still some support
for the hypothesis that classroom climate is an important political socialization
factor.

Focus of This Study

The present study focuses on the influence on student attitudes of classroom
climate variables similar to those found in the literature. The difference
between this study and others discussed above is in its longitudinal nature--
the same students were studied across three points of time spanning two years.
project is also longitudinal, but the over-time data have not yet been reported.

The study analyzes changes in student political attitudes toward school and
society over the period from March, 1974 to April, 1976. Attitude data were
collected each spring from the students in ten Midwestern high schools.
Attitude changes were related to the following social studies classroom variables:

1. The extent to which controversial issues were studied in high
   school social studies classes;
2. The extent to which social studies teachers treated more than one
   side of controversial issues;
3. The extent to which students felt free to express their own opinions
   while discussing controversial issues.

Although this is only a subset of the possible range of variables which could
be assessed, each of the three is related to those variables used in previous
studies of the phenomena.
The student attitudes under study were:

**General Social Attitudes**
- Trust in People
- Social Integration
- Political Confidence
- Political Interest

**School Attitudes**
- Trust in Other Students
- Trust in School Adults
- Integration in School Culture
- School Political Confidence
- School Political Interest

Each attitude has been conceived as having two reference points: the student's own school and society in general. Although it seems reasonable that social studies classroom variables would be more closely linked to change in school-related attitudes than to general society-related attitudes, it was deemed necessary to include the latter attitudes because of their greater relative significance for the political order as a whole.

The general hypothesis guiding the study was that perceptions of social studies classroom climate would be related to change in social and political attitudes towards school and, to a lesser extent, to change in general social and political attitudes. Hawley (1976) makes an excellent theoretical case for this hypothesis. He refers to the "implicit civic curriculum" as "...the behavior of teachers and the nature of the classroom environments teachers help to create and maintain." (p. 2) He further refers to important "lessons" which students learn as resulting from students' perceptions of teacher behavior and the classroom rules and norms supported by this behavior. Hawley argues that teachers also shape the attitudes of students through their control of interactions in the classroom, through reward structures and through modelling.

If the "lessons" learned by students in social studies are congruent with those learned in other settings--the family or the peer group, for example--attitudes may remain the same. For inconsistent messages, however, the
attitudes may change. If a student has "learned" that one cannot trust political authorities, whether in school or in general society, a social studies teacher who indoctrinates a belief in open expression but does not permit that expression in discussions of controversial issues (or exclude the discussions themselves) confirms the student's distrust, and it is likely to remain unchanged. For an initially trusting student, however, this trust may decrease. On the other hand, for a cynical student, a teacher who is consistent with his or her explicit statements and implicit actions may increase the student's trust.

The set of possibly inconsistent political learnings is very large when one considers the total possible contexts which a student experiences. But the idea that the actions of teachers are one possible influence in political learning remains. It is that idea on which this study was conducted.

ATTITUDES TOWARD SCHOOL AND SOCIETY

Four basic attitudes are included in this research: trust, integration, confidence, and interest. Trust refers to the belief that human behavior is consistent and governed by positive motivations such as principles like justice. A specific application of the concept trust is made in studies which investigate political cynicism. (Rosenberg, 1956, Agger et al., 1961) Cynicism is the opposite of trust. Jennings and Niemi (1968), in summarizing cross-sectional school research, suggest that children's trust of national political figures and processes is high in the elementary school years, but this trust erodes during junior and senior high school, and is replaced by increasing cynicism in adult years. Ehman (1969) confirmed the high school trust-erosion phenomenon with longitudinal data.
Integration refers to the belief that one is connected to one's social environment, and not cut off or alienated from it. Integration, and its opposite, alienation, as well as a related concept, anomia, have been conceptualized and operationalized by Dean (1961), Seeman (1959), and Srole (1956), among others. Anomia consists of multiple dimensions, including connectedness to social surroundings, or what we are referring to as integration, as well as personal powerlessness and the belief that society is normless. Little research on integration in secondary schools has been conducted, despite the extensive and popular educational writing about alienation of school youth. Ziblatt (1965) found that participation in high school activities was associated with feelings of integration in the high school status system.

Confidence is defined as the belief that one's actions can have an effect on political activities. It is analogous to, but more general than, the concept political efficacy. Almond and Verba (1963) found in a cross-cultural study that student verbal participation in school classes (and other social settings) was associated with adult feelings of competence to understand and act in the political arena. Political efficacy is a more widely-used concept. Easton and Dennis (1968) summarized the research relating to political efficacy, and found early development of this attitude in pre-high school students, as early as the third grade. They suggest that this might offset the growth, during adulthood, of frustration, disillusionment, and rising cynicism with participation in a modern mass political system. Stenton and Lambert (1977) take issue with the validity and reliability of the scales used in these studies to measure political efficacy.

Interest refers to the set of beliefs that predispose one to respond positively toward political situations. An attitude of interest toward political activity and situations is a logical base upon
which individual political behavior must rest and is another important school-related dimension for study.

There should be an implicit structure, or set of hierarchical relationships, between these four attitudes. Trust and integration should be more basic than, and prerequisite to, confidence. Before confidence in one's ability to affect political processes can be established, some degree of trust in others, and a sense of integration with one's social surroundings are necessary. Furthermore, trust should be more basic than integration. Before one can feel a part of one's general social surroundings, some feelings of trust in others are necessary. Interest should be more strongly related to confidence than to the other two attitudes, trust and integration, because the latter two do not necessarily presuppose interest, but confidence does require interest as its basis. Figure 1 shows this hypothesized attitude structure within two levels in the attitude hierarchy.

**Figure 1 -- Structural Relationships Between Student General Attitude Dimensions**

![Diagram](image)

This theoretical structure was tested with the data from this study, and the results conformed exactly with the structure in the case of the general attitudes. For the school-related attitudes there was one major deviation, in that school integration replaced school trust at the base of the structure. This analysis is reported in depth elsewhere (Ehman and Gillespie, 1975),
and adds confidence in the construct validity of the several attitude scales used in this research. The hypothesized structure was not a post hoc invention which fell out of the data, but was established as part of the research project conceptualization prior to any data collection.

PROCEDURES

Sample

Data for the study were collected during the Spring of 1974, and again in 1975 and 1976 from the same school and students. Thirteen schools were selected and participated in the first year of the study. They were originally chosen to represent a range of types on a dimension of political systems—from elite schools to participant schools. This categorization is not relevant to the present paper, but is discussed at length in Ehman and Gillespie (1975). Three schools declined to participate for the second and third year's data collection. Two urban schools are of medium size (1000-2000) and have racially integrated student populations. Four schools are suburban, large (2000 or over) and have predominantly (95%) white students. One urban school is large and has predominantly black students. One is small, suburban, and has predominantly white students, and two are small, rural and have predominantly white students. The schools were selected to arrive at a range of size, proximity to urban areas, and social composition. They comprise a convenience sample.

Approximately 200 students within each school were randomly sampled either through student name lists for each grade, or through required classes at each grade level. Questionnaires were administered either to the entire 200 in an auditorium or in individual classrooms. The sample mortality for students from 1974 to 1975 was 39%, despite efforts to avoid that problem. From 1974 to 1976 the mortality was 68%. School dropouts, residential mobility, school absence and refusal to respond to the 1975 and 1976 questionnaires appear to be
major factors explaining this mortality. The distribution of these factors among students across the ten schools is not known, but dropouts and mobility from the school districts appeared to account for about 31% of the mortality. Absences and early graduation appear to account for another 15%. The final number for which complete data over three questionnaire administrations was available was 339 out of the 1,061 total students in 1974 who could possible have responded in 1976. Only these 339 students in nine schools were used in the present analysis. The tenth school consisted of only grades 11 and 12, and thus data for the three points in time could not be obtained.

Measurement

Values for the three classroom climate variables were based on student questionnaire responses, in the last year, to the following items:

Controversial Issues Exposure

From your school experience, would you say that most of your social studies teachers have dealt with current social problems? (By current social problems we mean issues such as: politics, government policies, racial conflict, inflation, or busing) (choose only one response)

Most social studies teacher I have had deal with these issues:

_____ very often
_____ often
_____ occasionally
_____ almost never
_____ never

Range of Viewpoints

On the whole, have the teachers who have dealt with these issues presented all sides of the question and allowed all sides to be discussed? (choose only one response)

_____ almost always presents all sides
_____ sometimes presents all sides
rarely presents all sides
never presents all sides

Openness of Student Opinion Expression
When your teacher discusses these issues in class, how free do you feel to express your opinion?

feel free nearly all of the time
feel free most times
feel hesitant most times
feel hesitant nearly all of the time

Three problems result from measuring the climate variables with these items. First, there is only one item measuring each variable, and no reliability estimate is possible. Multiple item scales could have solved this problem, but the extra questionnaire administration time which would be required was judged to be unacceptable. Second, student perceptions rather than observed teacher behavior are being used in the measurement. However, it can be argued that it is student perceptions of these classroom climate dimensions that will make the difference in attitude change. Also, it has been demonstrated elsewhere (Ehman, 1970a) that student perceptions are substantially correlated positively with observers' coding of the openness of student opinion expression, while teacher perceptions are negatively correlated with the observers' coding. This last finding adds somewhat to the concurrent validity of these climate measures. The third problem is that the student is being asked to aggregate perceptions of how "most" of their social studies teachers structured classroom climate, rather than having separate ratings for each teacher. Again, the extra expense of this step was deemed prohibitive in this study.

For the present analysis student responses to the climate questions were dichotomized. The Controversial Issues Exposures item was split into
1) Very Often/Often and 2) Occasionally/Never. The Range of Viewpoints item was split into 1) Almost Always and 2) Sometimes/Rarely/Nevev. The Openness of Student Opinion Expression item was split into 1) Nearly all the Time/Most Times and 2) Hesitant Most Times/Hesitant Nearly All of the Time. The splits were chosen to most evenly balance the proportion of respondents into the two new categories.

The attitude scales were composed of a total of 64 items which were the result of two field tests, beginning with 132 items. The final items were factor analyzed, using an oblique rotation, and the resulting factor structure lent strength to the construct validity of the attitudes discussed above. (Ehman and Gillespie, 1975) Cronbach alphas for the nine scales for the three questionnaire occasions range from .60 to .88, with only two instances below .70.

Another kind of evidence for the construct validity of the attitudes comes from a comparison of the factor structures for the attitudes across the three data collection periods. Although space precludes a complete presentation of the data, it was found that the stability of the attitude structure for the students having complete questionnaires for all three years was remarkably high. A factor comparison yielded cosines—interpretable as correlation coefficients of the fit between factor structures across time—of above .95 in all cases. Thus, the attitude structure, or the relationship of the attitudes to one another, is quite permanent by the high school age. This does not mean that an individual's actual attitudes do not change over time, but it does mean that we are dealing with a coherent, and valid, set of attributes.

An examination of the stability of the individual attitude scores, rather than the structure of the set of attitudes, confirms the picture already drawn. Correlations for one year to the next are high and consistent, and the
two-year correlations are slightly lower in most cases. These correlations for the nine attitudes are given below:

Table 1: Between-Year Correlations for Nine Attitudes

<table>
<thead>
<tr>
<th>Attitudes</th>
<th>Trust in People</th>
<th>Social Integration</th>
<th>Political Confidence</th>
<th>Political Interest</th>
<th>Trust in Other Students</th>
<th>Trust in School Adults</th>
<th>Integration in School Culture</th>
<th>School Political Confidence</th>
<th>School Political Interest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trust in People</td>
<td>0.51</td>
<td>0.50</td>
<td>0.62</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Integration</td>
<td>0.45</td>
<td>0.51</td>
<td>0.53</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Political Confidence</td>
<td>0.61</td>
<td>0.70</td>
<td>0.59</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Political Interest</td>
<td>0.60</td>
<td>0.67</td>
<td>0.61</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trust in Other Students</td>
<td>0.46</td>
<td>0.59</td>
<td>0.39</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trust in School Adults</td>
<td>0.58</td>
<td>0.55</td>
<td>0.46</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Integration in School Culture</td>
<td>0.55</td>
<td>0.52</td>
<td>0.46</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School Political Confidence</td>
<td>0.60</td>
<td>0.62</td>
<td>0.53</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School Political Interest</td>
<td>0.58</td>
<td>0.50</td>
<td>0.49</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The attitude measures used in this paper are factor scores which take the form of z-scores, with means for the entire 1975 student sample of 0.0 and a standard deviation of 1.0 for each attitude.

Data Analysis

Three social studies classroom climate variables were examined for their influence on the trends across three points in time for the nine attitudes. To accomplish this, multivariate analysis of variance was used. This analysis breaks the trend in attitude scores across the time points into two independent components: a linear component, and a quadratic, or curvilinear, component. First, the analysis determines whether there are significant linear and curvilinear trends for each attitude across the two years. Then each of the three classroom climate variables is examined separately for a possible interaction with the linear and curvilinear trends. The presence of an interaction would indicate that the climate variable is influencing the
attitude change across time -- this is exactly the hypothesis we want to test. The analysis also allows influence to show up for curvilinear trends and this is important because it frees us from assumptions of linear-only relationships, which for these phenomena are oversimplifications.

One example from the analysis should illustrate:

**Predictor:** Extent to Which Controversial Social Issues are Treated in the Classroom

**Attitude:** Political Confidence (Efficacy)

<table>
<thead>
<tr>
<th>Year</th>
<th>Year</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1974</td>
<td>1975</td>
<td>1976</td>
</tr>
<tr>
<td>Often or Very Often:</td>
<td>.004</td>
<td>-.062</td>
</tr>
<tr>
<td>Occasionally or Never:</td>
<td>.009</td>
<td>.010</td>
</tr>
<tr>
<td>Overall without Predictor:</td>
<td>.004</td>
<td>-.036</td>
</tr>
</tbody>
</table>

For this example there is a significant linear trend without considering the predictor--the trend is clearly downward over the two year period. There is also a significant interaction, or joint effect, of the predictor with the linear trend--the students having frequent controversial issues exposure are declining in political confidence over the two years, while those not so exposed are remaining stable in this attitude. In the case of a curvilinear (quadratic) trend and interaction, the attitude views might be increased during the second year and decreased during the third year, but this non-linear trend could still be influenced by classroom climate variables.

**FINDINGS AND DISCUSSION**

The findings section will first examine the overall attitude trends, and then will be organized according to the three classroom climate variables.
Overall Across-Time Attitude Trends

The longitudinal attitude trends are shown below, where the mean attitude Z-scores for each year are presented.

Table 2: Mean Attitude Z-Scores for Three Years

<table>
<thead>
<tr>
<th>Attitudes</th>
<th>People</th>
<th>Social Integration</th>
<th>Political Confidence</th>
<th>Trust in Other Students</th>
<th>Trust in School Adults</th>
<th>Integration in School Culture</th>
<th>School Political Confidence</th>
<th>School Political Interest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1974</td>
<td>.068</td>
<td>.067</td>
<td>.004</td>
<td>.008</td>
<td>.082</td>
<td>.086</td>
<td>.107</td>
<td>.056</td>
</tr>
<tr>
<td>1975</td>
<td>.092</td>
<td>.079</td>
<td>-.036</td>
<td>-.081</td>
<td>-.025</td>
<td>.031</td>
<td>-.057</td>
<td>.090</td>
</tr>
<tr>
<td>1976</td>
<td>.266</td>
<td>.176</td>
<td>-.118</td>
<td>-.006</td>
<td>.084</td>
<td>.156</td>
<td>.107</td>
<td>.048</td>
</tr>
<tr>
<td>Trend</td>
<td>.#</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Significant Linear Trend
# Significant Curvilinear Trend

These data show that for the general attitudes, trust and social integration increase significantly over the two year period, while political confidence decreases significantly. Political interest drops slightly in 1975, but returns to its beginning level in 1976, and the curvilinear trend is not significant.

For the school-related variables there are three significant curvilinear trends. Each has the same shape: A dip in 1975 and a return to 1974 levels in 1976 characterize trust in other students, trust in school adults, and school political confidence. Integration in school culture shows the same shaped trend, but it is not significant. Interest in school politics appears quite stationary.

It is interesting that general trust increases and political confidence decrease through the period. The influence of the Watergate and other political
scandals might have reached its peak in 1974; if it can be assumed that the
1974 trust mean represents a very low point, then a period of trust-building
after Watergate might explain the increase in trust. The parallel increase
in social integration might be similarly explained. The overall trend in
trust at this age level has been shown to be generally downward in other, earlier
studies. (Ehman, 1969; Jennings and Niemi, 1968). The decrease in political
confidence may also be a function of Watergate, or it may be a reflection of
increased political skepticism gained through the development process at this
age. The school political confidence trend is parallel to that of the general
confidence from 1974-1975, but the school attitude rebounds in 1976. The
reasons for this, and for the other curvilinear school attitude trends, is
difficult to explain. Further detailed analysis of between school differences
is needed, and is beyond the scope of the present paper.

Controversial Issues Exposure

Of considerable interest is the obvious direct relationship shown in Table 3
between the controversial issues variable and general social integration and
political interest. It is clear from the means for all three years that more
perceived exposure to controversial issues is associated with increased social
integration and political interest. The explanation may be that the injection
of realism into the classroom through controversial issues results in greater
attention to politics as well as a stronger sense of belonging to one’s social
surroundings.

This climate factor is not related to any of the general attitude trends
except for political confidence, which showed the overall downward trend.
(See Table 3) The interaction with frequency of controversial issues treatment
Table 3: Multivariate Analysis of Variance For Trends for 1974, 1975 and 1976 Data Points. (Cell Entries are Mean Z-scores)

Predictor: Frequency of controversial issues treatment in classes

<table>
<thead>
<tr>
<th>Frequency:</th>
<th>General Attitudes Year</th>
<th>School Attitudes Year</th>
<th>Trust in Other Students</th>
<th>Trust in People</th>
<th>Trust in School Adults</th>
<th>School Political Confidence</th>
<th>Political Interest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very often/often (N=225)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occasionally/Never (N=106)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trend w/o Predictor</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very often/often</td>
<td>.058 .085 .280 *</td>
<td>.121 .050 .246 #</td>
<td>.096 -.004 .155 #</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occasionally/Never</td>
<td>.047 .131 .216</td>
<td>.010 .001 -.046</td>
<td>.060 -.068 -.082 **</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trend w/o Predictor</td>
<td>.048 .092 .226</td>
<td>.086 .031 .156</td>
<td>.082 -.025 .084</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Integration:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very often/often</td>
<td>.115 .144 .251 *</td>
<td>.128 .034 .188 **</td>
<td>.004 -.062 -.189 *</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occasionally/Never</td>
<td>.005 -.031 .046</td>
<td>.077 .066 -.074</td>
<td>.009 .010 .031 **</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trend w/o Predictor</td>
<td>.067 .079 .176</td>
<td>.107 .043 .107</td>
<td>.004 -.036 -.118</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Political Confidence:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very often/often</td>
<td>.004 -.062 -.189 *</td>
<td>.053 -.041 .133 #</td>
<td>.004 -.062 -.189 *</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occasionally/Never</td>
<td>.009 .010 .031 **</td>
<td>.002 -.096 -.141 **</td>
<td>.004 -.062 -.189 *</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trend w/o Predictor</td>
<td>.004 -.036 -.118</td>
<td>.046 -.057 .048</td>
<td>.004 -.062 -.189 *</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Integration in School Culture:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Political Interest:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very often/often</td>
<td>.117 .003 .091</td>
<td>.114 .140 .147</td>
<td>.117 .003 .091</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occasionally/Never</td>
<td>-.172 -.214 -.176</td>
<td>-.015 .021 -.037</td>
<td>-.172 -.214 -.176</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trend w/o Predictor</td>
<td>.008 -.081 -.006</td>
<td>.067 .090 .086</td>
<td>.008 -.081 -.006</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* = Significant Linear Trend Across Three Data Points Without Predictor
** = Significant Interaction of Predictor with Linear Trend Across Three Data Points
# = Significant Quadratic (Curvilinear) Trend Without Predictor
## = Significant Interaction of Predictor with Quadratic (Curvilinear) Trend
is very interesting. Students who reported occasional or no treatment of these issues in their social studies classes actually increased in political confidence against the overall downward trend. In contrast, those reporting frequent treatment of controversial issues decreased in political confidence more than the group as a whole. This might signal an increase in "realism"—by studying issues in class students may be exposed to failures in government responsiveness to individual or group actions, and thus lower his or her own sense of confidence, whereas in classes not studying such issues a less realistic, but more positive picture of citizen power and government responsiveness may emerge to modify this attitude in an upward direction.

The school attitudes also show direct relationships with the controversial issues variable. In all cases the students reporting more frequent issues exposure have more positive attitudes toward the various school referents. There are also interactions with the attitude trends, so that for trust in other students, integration in school culture, and school political confidence, frequent issues exposure accelerates upward the curvilinear trends, while less frequent exposure accelerates them downward. The consistency of these findings across attitudes is remarkable, and gives further strength to arguments for including controversial material in social studies classrooms.

Range of Viewpoints in Discussing Controversial Issues

Table 4 shows the data for the next classroom climate variable, the range of views teachers encourage and discuss while dealing with controversial issues. Each of the general attitudes is related directly to the range of views variable so that the students reporting a wider range of views in their classrooms are
### Table 4: Multivariate Analysis of Variance For Trends for 1974, 1975 and 1976 Data Points. (Cell Entries are Mean Z-sQPrN)

**Predictor:** Teachers present more than one side in discussing issues.

#### Presents all sides:

<table>
<thead>
<tr>
<th>General Attitudes</th>
<th>School Attitudes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trust in Other Students:</td>
<td></td>
</tr>
<tr>
<td>Almost always (N=185)</td>
<td>0.128</td>
</tr>
<tr>
<td>Sometimes/never (N=145)</td>
<td>0.082</td>
</tr>
<tr>
<td>Trend w/o Predictor</td>
<td></td>
</tr>
<tr>
<td>Almost always</td>
<td>0.106</td>
</tr>
<tr>
<td>Sometimes/never</td>
<td>0.036</td>
</tr>
<tr>
<td>Trend w/o Predictor</td>
<td>0.048</td>
</tr>
<tr>
<td>Trust in People:</td>
<td></td>
</tr>
<tr>
<td>Almost always</td>
<td>0.134</td>
</tr>
<tr>
<td>Sometimes/never</td>
<td>-0.005</td>
</tr>
<tr>
<td>Trend w/o Predictor</td>
<td>0.067</td>
</tr>
<tr>
<td>Trust in School Adults:</td>
<td></td>
</tr>
<tr>
<td>Almost always</td>
<td>0.000</td>
</tr>
<tr>
<td>Sometimes/never</td>
<td>0.024</td>
</tr>
<tr>
<td>Trend w/o Predictor</td>
<td>0.004</td>
</tr>
<tr>
<td>Social Integracion:</td>
<td></td>
</tr>
<tr>
<td>Almost always</td>
<td>0.175</td>
</tr>
<tr>
<td>Sometimes/never</td>
<td>-0.005</td>
</tr>
<tr>
<td>Trend w/o Predictor</td>
<td>0.067</td>
</tr>
<tr>
<td>Integration in School Culture:</td>
<td></td>
</tr>
<tr>
<td>Almost always</td>
<td>0.145</td>
</tr>
<tr>
<td>Sometimes/never</td>
<td>0.120</td>
</tr>
<tr>
<td>Trend w/o Predictor</td>
<td>0.008</td>
</tr>
</tbody>
</table>

* = Significant Linear Trend Across Three Data Points Without Predictor
** = Significant Interaction of Predictor with Linear Trend Across Three Data Points
# = Significant Quadratic (Curvilinear) Trend Without Predictor
## = Significant Interaction of Predictor with Quadratic (Curvilinear) Trend

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*Note: Z-sQPrN (Z-squared Partial R-squared) values are used to assess the explained variance of each predictor after controlling for the others.*
more trusting, feel more socially integrated, feel less politically confident and are more politically interested. However, no significant interactions with longitudinal trends are evident for these general attitudes, although the interaction for the trust trend is nearly significant.

The direct relationships between range of views and all five school-related attitudes are very pronounced and have a positive direction. In addition, there are two significant linear interactions, one with trust in students and the other with trust in school adults. That the range of viewpoints variable bears influence on the trends in both general social trust and the two school trust attitudes makes sense. If teachers allowed expression of only one viewpoint while conducting discussions of controversial material then students would be expected to sense the incongruity of the situation and, over time, revise accordingly their attitudes of trust in others. That this may be happening is supported by these data.

Openness of Student Opinion Expression

The largest direct differences related to the three classroom climate variables occur in Table 5, which shows the perceived student freedom to express his or her opinions during controversial issues discussions. Except for general political confidence, all of the attitudes are considerably more positive for students who feel free, rather than hesitant, to express their views. The consistency of this direct relationship is strong and conforms to others' findings discussed above. Openness of classroom climate measured in this way appears to be the strongest predictor of student general and school-related attitudes.
Table 5: Multivariate Analysis of Variance For Trends for 1974, 1975 and 1976 Data Points. (Cell Entries are Mean Z-scores)
Predictor: Students' freedom to express opinion during issues discussions

<table>
<thead>
<tr>
<th>Discussion Climate:</th>
<th>General Attitudes</th>
<th>School Attitudes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nearly always free  (N=140)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hesitant (N=189)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trend w/o Predictor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trust in her Students:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nearly always free</td>
<td>.097</td>
<td>.203</td>
</tr>
<tr>
<td>Hesitant</td>
<td>.010</td>
<td>-.019</td>
</tr>
<tr>
<td>Trend w/o Predictor</td>
<td>.048</td>
<td>.092</td>
</tr>
<tr>
<td>Trust in People:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nearly always free</td>
<td>.161</td>
<td>.247</td>
</tr>
<tr>
<td>Hesitant</td>
<td>.014</td>
<td>-.038</td>
</tr>
<tr>
<td>Trend w/o Predictor</td>
<td>.067</td>
<td>.079</td>
</tr>
<tr>
<td>Social Integration:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nearly always free</td>
<td>-.074</td>
<td>-.254</td>
</tr>
<tr>
<td>Hesitant</td>
<td>.071</td>
<td>.111</td>
</tr>
<tr>
<td>Trend w/o Predictor</td>
<td>.004</td>
<td>-.036</td>
</tr>
<tr>
<td>Integration in School Culture:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Political Confidence:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nearly always free</td>
<td>.149</td>
<td>.181</td>
</tr>
<tr>
<td>Hesitant</td>
<td>-.073</td>
<td>-.240</td>
</tr>
<tr>
<td>Trend w/o Predictor</td>
<td>.008</td>
<td>-.081</td>
</tr>
</tbody>
</table>

* = Significant Linear Trend Across Three Data Points Without Predictor
** = Significant Interaction of Predictor with Linear Trend Across Three Data Points
# = Significant Quadratic (Curvilinear) Trend Without Predictor
## = Significant Interaction of Predictor with Quadratic (Curvilinear) Trend
When we turn to the interaction of this climate variable with the across-time attitude trends, we find that interactions occur for political confidence and political interest. In the case of confidence, perceptions of freedom accelerate the negative trend, while hesitancy supports confidence at above-average levels. For political interest, the opposite is true. For the school attitudes there are linear interactions with trust in other students and integration in school with the direction of the interactions the same as for the general attitudes. For school political confidence the interaction is positive. Why perceived freedom to express opinions deflects general political confidence downward across time defies explanation within the framework of this study. The other, predicted relationships can be explained in the same terms as used for the earlier climate variables. It is clear that fostering an open classroom climate is an important goal for social studies teachers when they deal with controversial issues.

SUMMARY AND CONCLUSIONS

The Hypothesis Confirmed

This investigation has been guided by the general hypothesis that openness of a classroom climate would be related to change in social and political attitudes toward school and, to a lesser extent, to change in general social and political attitudes. Classroom climate was assessed through student perceptions of three characteristics: frequency of controversial issues exposure, range of viewpoints encouraged, and openness of student opinion expression. Each climate variable was found to be related directly to each school-related variable for the three year period, with more open perceived classroom climate associated with more positive school attitudes of trust, integration, confidence and
interest. In over half of the cases, the climate variables also interacted with the attitude longitudinal trends. In these cases, the classroom climate factor accentuated the positive school attitude changes across time.

For the general socio-political attitudes, the same general pattern is found as for school-related attitudes, except for political confidence. For trust in people, social integration and political interest, each climate variable is positively related across the three time points, although there are only two interactions with the linear trends in the attitudes. For political confidence, there are negative direct relationships with the three predictors, and there are significant interactions with linear trends for controversial issues exposure and opinion expression freedom, both in the negative direction, so that the more open the climate, the lower confidence becomes over time.

With the exception of political confidence, therefore, the general hypothesis is confirmed. The findings are clearly in accord with previous studies which have identified classroom climate as an important factor in student opinion change.

Implications

Implications of this research can be drawn for practice in social studies education and for future research. The findings provide strong support for the inclusion of controversial issues material in social studies curriculum text materials as well as in day-to-day teacher planned lessons. Concentrating on the closed, and controversial areas of our society apparently has salutary effects on student attitudes, with the one troubling exception of political confidence.

But as important as including the treatment of controversial issues is how the issues are dealt with in the classroom. Evidence here shows clearly
that if teachers promote the discussion of all sides of a problem, rather than just one viewpoint, and if they generate student perceptions that each student has the freedom to express his or her own opinion on the topic, then the outcomes are also positive, again with the exception of political confidence. Pre-service teacher training programs, texts, and in-service teacher work need to stress these ideas.

Other research is also needed. Hawley (1976) has promised further, longitudinal, analysis of his observation data which measure classroom climate variables. Of considerable interest will be Hawley's report of the relationships between student perceptions and direct observations of the same classroom climate phenomena. These are unfortunately not reported in his work thus far.

It also appears that there is sufficient research evidence now to begin experimental work in this area. Careful long-range field experiments are needed to confirm the influence of classroom climate variables. This will require careful conceptualization, training of teachers, measurement of instructional treatments through observations and/or student reporting, and the use of delayed post-test designs to check for permanence of effects. But, this work is a needed next step in generating knowledge about classroom effects on student attitudes. The resources of many future survey studies on this topic would be more wisely invested in such field experiments.

Limitations

Before closing this paper, the two major limitations of the study should be reiterated so that proper caution can be placed on the interpretations of the findings. First, sample mortality is very high from the first to the
third year--nearly 70 percent. This means that the students remaining in
the study all three years are very likely to be special in a number of ways.
That they may be different on initial attitudes has been established; with
a few exceptions, they were more positive on the attitudes in 1974 than those
dropping out of the study. The second major limitation is that the students
were asked to average, in their minds, the classroom climate characteristics,
for all their social studies teachers over the past three or four years, into
one global rating. This is obviously a bad compromise in measuring the
independent variables of the study, although it was economically necessary.
To have tried to do otherwise would have resulted in no usable data at all.
Careful field experiments should overcome both of these difficulties and
will either confirm or disconfirm the hypothesis forwarded here. In the meantime,
the best and most consistent evidence that we have tells us that what happens
in social studies classrooms can and does make a difference.
REFERENCES


