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Cognitive Style, Teacher Methods, and Concept Attainment in Social Studies

Inter racial Contact Experience and Attrition Among Black Undergraduates at a Predominantly White University

Cognitive Development and Historical Reasoning in Social Studies Curriculum

Reply to Thornton, Social Studies Misunderstood

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Introduction

Concern with making appropriate provisions for individual differences among learners has been a primary theme in educational research. Throughout the sixties and seventies, much of this research attended to variables associated with either the learner's developmental levels or some aspect of the learner's prior knowledge of the topic or skill to be acquired. Yet, Messick (1977) noted:

What is only now beginning to be recognized, however, is that differences in style of learning and thinking also require the attention of educators and researchers. Concern about differences in prior learning and achievement and in level of social and cognitive development is not enough. (Messick, 1977)

Conducting research into the design of educational environments that attend to style differences among learners has also been urged by Glaser (1977), Chickering (1976), and Thornell (1976).

In defining a concept of style, researchers have frequently contrasted it with the concept of ability. Typically an ability refers to levels of perfor-
mance in goal achievement while style indicates the individual's preferred mode of operation in goal achievement. Similarly, where one would usually attach some value or measure of worth to an ability, styles are frequently considered bipolar and therefore are value-neutral.

Of the various concepts of style that offer considerable potential for improvement of individualization of instruction in social studies is that of cognitive style. Cognitive style has been defined as "... the characteristic ways in which individuals conceptually organize the environment" (Goldstein & Blackman, 1978).

Guilford (1977) has stated that the most widely researched construct of cognitive styles has been the Field Dependence-Field Independence view proposed by Witkin (1981).

Field independence versus field dependence refers to a consistent mode of approaching the environment in analytical, as opposed to global terms. It denotes a tendency to articulate figures as discrete from their backgrounds and a facility in differentiating objects from embedding contexts as opposed to a counter tendency to experience events globally in an undifferentiated fashion. The field-independent pole includes competence in analytical functioning combined with an impersonal orientation, while the field-dependent pole reflects correspondingly less competence in analytical functioning combined with greater social orientation and social skills. (Messick 1976. p. 14)

Messick's characteristics of cognitive style provide the social studies educator and researcher with a potentially rich source of ideas for designing more effective programs. Given the polarity of cognitive style both Field Dependent (FD) and Field Independent (FI) learners may have predispositions or preferences that could affect their ability to meet many of the goals associated with the Social Studies.

For example, some research findings support the position that FD learners are more sensitive than FI learners to social cues (Ruble & Nakamura, 1972), tend to prefer subject matter related to human interaction (Witkin, 1977), and are perceived by others as being warm, non-evaluative and accepting of others (Witkin, 1981). Such findings have important educational implications when considered in terms of such basic social studies objectives as

Develops the human relation skills necessary to communicate and work with others. (N.A.E.P., 1975, p. 102)

Of particular importance to this study is the possible interplay of instruction and style as related to intellectual goals of the social studies. Generally, research in cognitive style has tended to indicate that most school related learning tasks tend to favor the FI learner. Indeed, research has generated a rather consistent view in which FI learners outperform their FD counter-
parts in concept identification (Davis & Klausmeir, 1970), serial learning (Long, 1962), and solving concept-attainment problems (Ruble & Nakamura, 1972). Additionally, FI learners are frequently perceived by others "...as being high in autonomy and as showing initiative, responsibility-taking, self-reliance and the ability to think for themselves" (Witkin, 1981, p. 39).

Yet, considerable research indicates that FI learners display their "cognitive edge" only when engaged in tasks that require cognitive restructuring or reorganization of the salient features of the task. When restructuring was not needed, research typically indicated no differences in the performance of FD and FI learners. However it has been concluded that many social studies learning tasks likely require considerable restructuring by the learner. Witkin (1977) claimed that while the content areas of mathematics and sciences contained numerous functionally related concepts — thereby requiring little if any restructuring — this was not the case with the content structure of the social studies. Indeed, given the added dimension of the elementary school's reliance on chronology or geographical place as the major structural organizers for social studies courses, Witkin's conclusion appears valid. Obviously in light of related research findings, this situation would frequently place FD learners at a distinct disadvantage unless some mediating provisions were provided.

Therefore, it was decided to conduct a study of the effects of two different types of pre-instructional activities on the social studies achievement of elementary students having different cognitive styles. The decision to pursue several avenues simultaneously was based on several considerations. First, in light of the extensive body of research literature on concept teaching/learning and the social studies' purported emphasis on concept learning, it was decided to design and investigate the effects of concept attainment materials as pre-instructional mediators. Similarly, Martorella (1977), Coop and Sigel (1971), Stasz and Shavelson (1976), and others have urged that research also be conducted investigating possible aptitude-treatment interaction effects between cognitive style, instructional materials, and teaching strategies. In order to attend to the element of teaching strategies, a second series of pre-instructional activities was included that focused on the use of three different strategies for teaching generalizations. These specific strategies were selected, in part, because of both their frequent association with social studies education and their demonstrated capacity to aid students in developing social studies generalizations. It was felt that the focus on generalization-building activities as possible mediators for the second series was justified on grounds of curricular emphasis and research literature similar to that noted earlier for concept learning. More importantly, it was felt that the resulting interplay within this design between cognitive style, concept attainment materials, and teaching strategies might provide social studies educators with information that could enable them to better adapt their programs to the aptitudes of their students.
Problem

A three phase experiment was conducted to examine the following questions.
1. What effects would a pre-instructional series of concept attainment materials have on the social studies achievement of students with different cognitive styles?
2. What effects would a pre-instructional series of lessons using three different teaching strategies have on the social studies achievement of students with different cognitive styles?
3. What combinations of certain teaching materials and teaching strategies are most effective for students with different cognitive styles?

Sample and Method of Study

The subjects were 102 fifth grade students in a Title 1 Middle School in southern New England. Before the beginning of each school year, the school administrators attempted to balance the composition of each classroom by matching and assigning students on the basis of their Stanford Achievement Tests reading scores, prior academic grades, sex, and written teacher comments on general pupil performance. Two months before the experiment, the Children's Embedded Figures Test (CEFT) was administered to all students. In line with an earlier study by Grieve and Davis (1971) a median split was computed and used to identify learners as either field dependent or field independent. This split resulted in a range of cell sizes (5 to 11) among the twelve groups that was considered acceptable for purposes of the study.

Prior to the experiment, the Holt Databank unit on the “Industrial Revolution” was selected to be used in this study. The unit was modified to focus on the eight basic economic concepts that serve as the basis for the Joint Council on Economic Educations' Master Curriculum Guide (Kourilsky, 1978) for the intermediate grades and two related economic generalizations dealing with economic growth and its impact on the way people live. Based on these modifications a series of concept attainment materials for the eight concepts were developed in accordance with Martorella’s model for concept learning (Martorella, 1977). Next three teaching strategies were selected to be used in teaching the two related economic generalizations. These strategies were:

1. An expository strategy based on Oliner’s Closed Deductive Model in which the generalization is presented by the teacher at the beginning of the lesson. (Oliner, 1976)
2. An inquiry strategy also based on Oliner’s Closed Inductive Model in which the generalization is initially presented in an embedded manner and following some analysis, students then induce, evaluate and apply the generalization. (Oliner, 1976)
3. Taba's *Interpretation of Data strategy* in which students initially identify specific elements, developing relationships among the items, and then draw generalizations based on the data and relationships. (Taba, 1971)

This resulted in the design of two series of pre-instructional activities or mediating activities, one focusing on concept acquisition primarily through written materials with limited teacher input, and the second series focusing on building related economic generalization using three teaching strategies.

Three teachers and six social studies classes were involved in this study. Each teacher was responsible for two classes, one of which was randomly assigned to receive both the concept attainment series and the generalization building series of activities while the other class received only the generalization building activities. Furthermore, since availability of time for teacher training was particularly limited, each teacher was trained and assigned to use only one of the three teacher methods—a limitation of the study. However, during this training period materials describing each method were thoroughly discussed with each trainee. Next, one of the authors demonstrated the assigned strategy for each trainee with one of his/her classes. Then, the demonstration was analyzed in terms of the teaching method and for the remainder of the training period, each trainee was taken through the detailed set of lesson plans to be used with his/her students. Additionally, throughout the experiment each teacher's work was observed by at least one of the authors in order to ensure that all materials, plans, and strategies were used as directed.

Therefore, the pre-instructional portion of the experiment contained two phases. In Phase I of the study, one of each teacher's classes was randomly selected and received the concept attainment activities. Following completion of these materials, all classes participated in Phase II of the study in which each teacher used the assigned teaching strategy and materials to teach his/her classes the specified economic generalizations. Upon completion of this second pre-instructional segment, a 44 item teacher-made test, T₁, dealing with the content of the two mediators was administered to all students. In Phase III of the experiment all students received the standard unit of instruction, within the selected *Holt Databank* activities dealing with the Industrial Revolution. Similarly, all teachers used identical teaching plans and again all implementation was monitored. Upon completion of Phase III, T₂, a twenty-item teacher made test dealing with the Industrial Revolution, and T₃, the Joint Council on Economic Education (JCEE) *Basic Economics Test* Form B, were administered to all students. Eight weeks later, a delayed post test, T₄, Form A of the JCEE *Basic Economics Test*, was administered to all students.

**Findings**

*Measuring Instruments:* One hundred two students completed all four tests and the *Children's Embedded Figures Test* (CEFT) instrument for identify-
ing differences in cognitive style. In addition, *Stanford Achievement Test* Social Studies scores were used as a sixth measure for each student, as a covariate in later analyses. These scores were not available for two students, so the effective N was 100 for the analyses in this experiment.

The median CEFT score was 16, shared by 11 students. Students with the median score and above were included in the Field Independent (FI) groups (n = 55) and those with scores of 15 and lower were included in the Field Dependent groups. The range of CEFT scores was from 3 to 25 with a mean of 15.71. A preliminary analysis of variance (ANOVA) showed the expected highly significant difference of CEFT scores for cognitive style, $F(1,88) = 134.21$, $p < .001$ but no other systematic differences for the concept attainment or teaching method factors, nor for any of the interactions (All $F$'s less than 1.00). Thus, the six "high" and six "low" groups were considered homogeneous and equivalent with respect to CEFT scores.

Application of a single median value to accomplish the overall median split resulted in unequal cell frequencies ranging from 5 to 11 students per cell of the overall three factor design (two levels of cognitive style X two levels of concept lessons X three teaching methods). As a check on the initial homogeneity of students’ social studies abilities, *Stanford Achievement Test* scores based on year-end tests from the previous grade were analyzed. An ANOVA on these scores showed a significant difference such that Field Independent (FI) students had higher social studies scores than Field Dependent (FD) students ($\bar{X}_{HI} = 59.22$, $\bar{X}_{LO} = 53.82$; $F(1,88) = 4.33$, $MS_{err} = 206.74$, $p < .05$). In addition, there were differences among students comprising the three teaching methods groups that fell only somewhat short of being significant at the $\alpha = .05$ level ($\bar{X}_{TABA} = 60.0$ $\bar{X}_{INQ} = 57.33$, $\bar{X}_{EXP} = 52.94$; $F_{obt}(2,88) = 2.77$; $F_{crit}(2,88) = 3.11$). While none of the other effects approaches significance in this analysis, it was decided that analyses of covariance (ANOCOVAR) using the "default" options of SPSS version 8 (Nie et al., 1975) should be included, in addition to the more traditional and straightforward ANOVAs.

Internal reliability of the various measurements was calculated using the Kuder-Richardson 21 formula (Martuza, 1977). The values calculated for the six measures for the 100 subjects in this experiment were considered satisfactory for experimental purposes, ranging from .673 to .883. Of greatest concern were the reliabilities of the two teacher-made tests; their KR21 values were .704 and .673 for the 44-item and 20-item tests used as the first two experimental measures, respectively. These compare favorably to the two forms of the standardized Joint Council on Economic Education (JCEE) tests, .682 and .719, which have published reliabilities of .804 and .842 (Cronbach's alpha; KR21 values for standardization data given in the *Examiner's Manual* were calculated at .769 and .813). The KR21 values were calculated to be .751 for the CEFT scores and .883 for the Stanford Social Studies Achievement scores.
Independent assessment of the content validity and construct validity of the two teacher-made tests was not undertaken; rather, the various pairwise correlations among all six measurements were calculated to compare the patterns for these two instruments with the two JCEE tests, which were considered valid in both respects (see Chizman and Holinski, 1981, pp. 10-13). The triangular half-matrix of Pearson correlation values is given in Table 1. Since virtually none of the interactions among the experimental variables of cognitive style, concept attainment methods, and teaching method were significant in the inferential tests (ANOVAs and ANOCOVARs), the additive model underlying the correlation analyses was assumed to be appropriate. Thus, the correlations of each test with the others should be comparable if the validities of the various measurements are equivalent. Row-by-row examination of Table 1 shows values consistent with this assumption. For example, the two teacher-made tests correlated .570 and .595 with the Stanford Achievement scores, while the JCEE tests showed values of .529 and .687. While such data do not prove the teacher-made tests to be valid, they are consistent with the assumption that the tests share content and construct validity at levels comparable to the JCEE tests.

**Test 1: Concept Attainment Lessons and Economic Generalizations Instruction**

The first test, a 44 item teacher-made test (T₁), was administered at the end of Phase II to measure the effects of Concept Attainment Lessons after the period of instruction in economic generalizations. As in the cases of all subsequent tests, analyses included both analysis of variance (ANOVA) and analysis of covariance (ANOCOVAR) with three independent factors, cognitive style (FI/FD), concept attainment lessons (yes/no), and teaching method (expository/inquiry/Taba). The ANOCOVAR used Stanford Achieve-
ment scores from the previous year as the single covariate; the default options of SPSS, version 8, were specified (Nie et al., 1975).

The descriptive statistics for T, scores are given in Table 2, and the summaries of the inferential tests are given in Table 3. These data show lower scores for Field Dependent (FD) students compared with those who scored high on the CEFT test, Field Independent (FI), a difference that is significant at the standard $\alpha = .05$ level in the ANOVA, but which falls short of the significant value when the covariate is taken into account. On this early test, the effect of concept lessons was highly significant in both analyses, reflecting on average four item advantage for students who received the lessons compared with those who did not. The effect of teaching methods, which varied only during the Phase II generalization activities, was significant in the ANOVA test but not in the ANOCOVAR results; in any case, it accounted for only a small effect at this point in the experiment.

<table>
<thead>
<tr>
<th>Cognitive Style</th>
<th>Concept Lessons</th>
<th>Teaching Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>FD</td>
<td>No</td>
<td>Expository</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Inquiry</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Taba</td>
</tr>
<tr>
<td>FD</td>
<td>Yes</td>
<td>17.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>19.14</td>
</tr>
<tr>
<td></td>
<td></td>
<td>21.57</td>
</tr>
<tr>
<td></td>
<td>(n = 5)</td>
<td>(n = 7)</td>
</tr>
<tr>
<td>FD</td>
<td>Yes</td>
<td>19.50</td>
</tr>
<tr>
<td></td>
<td></td>
<td>23.71</td>
</tr>
<tr>
<td></td>
<td></td>
<td>23.82</td>
</tr>
<tr>
<td></td>
<td>(n = 8)</td>
<td>(n = 7)</td>
</tr>
<tr>
<td>FI</td>
<td>No</td>
<td>20.30</td>
</tr>
<tr>
<td></td>
<td></td>
<td>19.44</td>
</tr>
<tr>
<td></td>
<td></td>
<td>23.20</td>
</tr>
<tr>
<td></td>
<td>(n = 10)</td>
<td>(n = 9)</td>
</tr>
<tr>
<td>FI</td>
<td>Yes</td>
<td>24.50</td>
</tr>
<tr>
<td></td>
<td></td>
<td>27.10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>28.00</td>
</tr>
<tr>
<td></td>
<td>(n = 10)</td>
<td>(n = 10)</td>
</tr>
</tbody>
</table>

Table 2

Cell Means and Marginal Means (Unadjusted and Adjusted) for Teacher-Made Test (T, ) Given after Phase II (Concept Lessons and Generalization-Building Activities)

<table>
<thead>
<tr>
<th>Factor</th>
<th>Level</th>
<th>Unadjusted</th>
<th>Adjusted (Covariance)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive Style</td>
<td>FD</td>
<td>21.20</td>
<td>21.48</td>
</tr>
<tr>
<td></td>
<td>FI</td>
<td>23.53</td>
<td>23.30</td>
</tr>
<tr>
<td>Concept Lessons</td>
<td>No Lessons</td>
<td>20.42</td>
<td>20.41</td>
</tr>
<tr>
<td></td>
<td>Lessons</td>
<td>24.38</td>
<td>24.39</td>
</tr>
<tr>
<td>Teaching Methods</td>
<td>Expository</td>
<td>20.88</td>
<td>21.47</td>
</tr>
<tr>
<td></td>
<td>Inquiry</td>
<td>22.61</td>
<td>22.47</td>
</tr>
<tr>
<td></td>
<td>Taba</td>
<td>23.91</td>
<td>23.47</td>
</tr>
</tbody>
</table>
Table 3
Analysis of Variance (ANOVA) and Analysis of Covariance (ANOCOVAR) Summaries for T1 Teacher-Made Test Given after Phase II

<table>
<thead>
<tr>
<th>Source</th>
<th>ANOVA df</th>
<th>MS</th>
<th>F</th>
<th>ANOCOVAR df</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stanford Ach. (ANOCOVAR only)</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>1165.47</td>
<td>55.07†</td>
</tr>
<tr>
<td>Cognitive Style (S)</td>
<td>1</td>
<td>208.13</td>
<td>6.84*</td>
<td>1</td>
<td>75.52</td>
<td>3.57</td>
</tr>
<tr>
<td>Concept Lessons (L)</td>
<td>1</td>
<td>443.23</td>
<td>14.56‡</td>
<td>1</td>
<td>389.26</td>
<td>18.39‡</td>
</tr>
<tr>
<td>Teaching Methods (M)</td>
<td>2</td>
<td>115.33</td>
<td>3.79*</td>
<td>2</td>
<td>62.48</td>
<td>1.48</td>
</tr>
<tr>
<td>S x L</td>
<td>1</td>
<td>35.32</td>
<td>1.16</td>
<td>1</td>
<td>12.93</td>
<td>0.61</td>
</tr>
<tr>
<td>S x M</td>
<td>2</td>
<td>10.49</td>
<td>0.34</td>
<td>2</td>
<td>31.79</td>
<td>1.50</td>
</tr>
<tr>
<td>L x M</td>
<td>2</td>
<td>18.87</td>
<td>0.62</td>
<td>2</td>
<td>13.21</td>
<td>0.62</td>
</tr>
<tr>
<td>S x L x M</td>
<td>2</td>
<td>0.98</td>
<td>0.03</td>
<td>2</td>
<td>4.84</td>
<td>0.23</td>
</tr>
<tr>
<td>Error</td>
<td>88</td>
<td>30.44</td>
<td>—</td>
<td>87</td>
<td>21.16</td>
<td>—</td>
</tr>
</tbody>
</table>

*p < .05
†p < .01
‡p < .001

Tests 2 and 3:
Completion of All Instructional Activities

The second and third tests were administered upon the completion of formal instruction. Descriptive statistics and the summaries of the inferential tests for the 20-item teacher-made test (T2) are given in Tables 4 and 5, respectively; corresponding data for the 38-item JCEE test, Form B (T3) are given in Tables 6 and 7.

The pattern of differences associated with the three teaching methods is an increase in the magnitude of differences seen earlier in the T1 analyses, in that scores were highest for students instructed with the Taba method, intermediate for those taught by the inquiry method, and lowest for those taught by the expository method. The difference between the Taba and inquiry methods was not significant on the teacher-made T2 test, when assessed by the Fisher LSD statistic. However, scores for the inquiry method students were substantially lower than for the Taba groups on the JCEE (T3) test, and were not significantly different from the expository group scores on that test.

Some divergence between the results of T2 and T3 appears in connection with the cognitive style variable. The teacher-made test showed only a small, non-significant difference between Field Independent (FI) and Field Dependent (FD) students, whereas the JCEE test showed a larger superior-
Table 4
Cell Means and Marginal Means (Unadjusted and Adjusted) for Teacher-Made Test (T2) Given after Phase III (All Instructional Phases)

<table>
<thead>
<tr>
<th>Cognitive Style</th>
<th>Concept Lessons</th>
<th>Teaching Method</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Expository</td>
</tr>
<tr>
<td>FD</td>
<td>No</td>
<td>7.60 (n = 5)</td>
</tr>
<tr>
<td>FD</td>
<td>Yes</td>
<td>8.63 (n = 8)</td>
</tr>
<tr>
<td>FI</td>
<td>No</td>
<td>8.10 (n = 10)</td>
</tr>
<tr>
<td>FI</td>
<td>Yes</td>
<td>8.90 (n = 10)</td>
</tr>
</tbody>
</table>

Marginal Means

<table>
<thead>
<tr>
<th>Factor</th>
<th>Level</th>
<th>Unadjusted</th>
<th>Adjusted (Covariance)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive Style</td>
<td>FD</td>
<td>10.64</td>
<td>10.85</td>
</tr>
<tr>
<td></td>
<td>FI</td>
<td>11.24</td>
<td>11.06</td>
</tr>
<tr>
<td>Concept Lessons</td>
<td>No Lessons</td>
<td>10.63</td>
<td>10.63</td>
</tr>
<tr>
<td></td>
<td>Lessons</td>
<td>11.29</td>
<td>11.28</td>
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<tr>
<td>Teaching Methods</td>
<td>Expository</td>
<td>8.39</td>
<td>8.86</td>
</tr>
<tr>
<td></td>
<td>Inquiry</td>
<td>12.00</td>
<td>11.93</td>
</tr>
<tr>
<td></td>
<td>Taba</td>
<td>12.47</td>
<td>12.09</td>
</tr>
</tbody>
</table>

ity for FI students that reached the .05 level of significance in the ANOVA, but not on the ANCOVAR. The pattern on the JCEE test thus resembles that for T1, suggesting a marginal superiority of FI students during the period of formal instruction. In spite of this, however, none of the interactions involving the cognitive style variable, either with concept lessons, teaching method, or both, approached the established .05 level of significance.

The results of the T2 and T3 tests suggest a substantial reduction in the effects of the concept lessons. In general, the difference between those who received the lessons and those who did not was less than half the average of four items on the 44 item T1 test. Some degree of statistical significance was associated with this difference, however. On the JCEE (T3) test, the unad-
adjusted mean difference of 1.6 items was significant at the .05 level. On the 20 item T₂ test, however, the concept lessons effect was manifested in the form of the only significant interaction in all of the statistical analyses in this experiment, the concept lessons by teaching method interaction in the ANOCOVAR analysis. Examination of the unadjusted cell means for this interaction showed that students taught with the inquiry method who did not receive the concept lessons (X = 12.31) performed better than inquiry students who did receive those lessons (X = 11.71). Alternatively, the interaction inversion can also be described by noting that, among students who did not receive concept lessons, those taught by the inquiry method (X = 12.31) did better than those taught by the Taba method (X = 11.41). This may be a spurious result for the 16 students in the no concepts, inquiry groups; with the exception of those two cells in Table 4, the pattern resembles that of the descriptive data in Table 6 for the JCEE test quite well, suggesting a small overall advantage for concept lessons at this point in the experiment.

**Table 5**

Analysis of Variance (ANOVA) and Analysis of Covariance (ANOCOVAR) Summaries for T₂ Teacher-Made Test Given after Phase III

<table>
<thead>
<tr>
<th>Source</th>
<th>ANOVA</th>
<th>ANOCOVAR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>df</td>
<td>MS</td>
</tr>
<tr>
<td>Stanford Ach. (ANOCOVAR only)</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Cognitive Style (S)</td>
<td>1</td>
<td>32.10</td>
</tr>
<tr>
<td>Concept Lessons (L)</td>
<td>1</td>
<td>17.32</td>
</tr>
<tr>
<td>Teaching Methods (M)</td>
<td>2</td>
<td>170.66</td>
</tr>
<tr>
<td>S × L</td>
<td>1</td>
<td>19.31</td>
</tr>
<tr>
<td>S × M</td>
<td>2</td>
<td>4.26</td>
</tr>
<tr>
<td>L × M</td>
<td>2</td>
<td>22.17</td>
</tr>
<tr>
<td>S × L × M</td>
<td>2</td>
<td>6.21</td>
</tr>
<tr>
<td>Error</td>
<td>88</td>
<td>10.27</td>
</tr>
</tbody>
</table>

*p < .05  
†p < .01  
‡p < .001

Test 4: Eight-Week Follow-up Test

The fourth and final test, Form A of the JCEE standardized tests, was administered eight weeks after completion of all formal instructional ac-
Table 6
Cell Means and Marginal Means (Unadjusted and Adjusted) for JCEE Form B Test (T₃) Given after Phase III (All Instructional Phases)

<table>
<thead>
<tr>
<th>Cognitive Style</th>
<th>Concept Lessons</th>
<th>Teaching Method</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Expository</td>
</tr>
<tr>
<td>FD</td>
<td>No</td>
<td>14.20 (n = 5)</td>
</tr>
<tr>
<td>FD</td>
<td>Yes</td>
<td>17.38 (n = 8)</td>
</tr>
<tr>
<td>FI</td>
<td>No</td>
<td>17.50 (n = 10)</td>
</tr>
<tr>
<td>FI</td>
<td>Yes</td>
<td>16.60 (n = 10)</td>
</tr>
</tbody>
</table>

Marginal Means

<table>
<thead>
<tr>
<th>Factor</th>
<th>Level</th>
<th>Unadjusted</th>
<th>Adjusted (Covariance)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive Style</td>
<td>FD</td>
<td>17.64</td>
<td>17.77</td>
</tr>
<tr>
<td>Concept Lessons</td>
<td>No Lessons</td>
<td>17.75</td>
<td>17.70</td>
</tr>
<tr>
<td>Lessons</td>
<td>Lessons</td>
<td>19.35</td>
<td>19.39</td>
</tr>
<tr>
<td>Teaching Methods</td>
<td>Expository</td>
<td>16.70</td>
<td>17.19</td>
</tr>
<tr>
<td></td>
<td>Inquiry</td>
<td>17.18</td>
<td>17.06</td>
</tr>
<tr>
<td></td>
<td>Taba</td>
<td>21.76</td>
<td>21.40</td>
</tr>
</tbody>
</table>

activities. Descriptive statistics for this test and the summaries of the inferential tests are given in Tables 8 and 9. The pattern of results for this test is simple and clear-cut. Neither cognitive style nor concept lessons yielded a significant main effect; the only significant differences were associated with the three teaching methods such that the Taba method was associated with the highest scores and the expository method yielded the lowest scores. The Fisher LSD comparisons showed the Taba scores to be significantly higher than the inquiry scores, which in turn were not significantly higher than the expository scores. Thus, the ordinal ranking was consistent with that for the results of the 20-item teacher-made test and the standardized JCEE test given after completion of all instructional activities, and the pattern of significant differences was the same as that for the ANOVA for the 20 item teacher-made test (T₂).
Table 7
Analysis of Variance (ANOVA) and Analysis of Covariance (ANOCOVAR) Summaries for T3 JCEE Form B Test Given after Phase III

<table>
<thead>
<tr>
<th>Source</th>
<th>ANOVA</th>
<th></th>
<th></th>
<th>ANOCOVAR</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>df</td>
<td>MS</td>
<td>F</td>
<td>df</td>
<td>MS</td>
<td>F</td>
</tr>
<tr>
<td>Stanford Ach. (ANOCOVAR only)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>795.84</td>
<td>48.25‡</td>
</tr>
<tr>
<td>Cognitive Style (S)</td>
<td>1</td>
<td>170.16</td>
<td>7.79†</td>
<td>1</td>
<td>49.84</td>
<td>3.02</td>
</tr>
<tr>
<td>Concept Lessons (L)</td>
<td>1</td>
<td>89.72</td>
<td>4.11*</td>
<td>1</td>
<td>69.43</td>
<td>4.21*</td>
</tr>
<tr>
<td>Teaching Methods (M)</td>
<td>2</td>
<td>281.47</td>
<td>12.88‡</td>
<td>2</td>
<td>195.02</td>
<td>11.82‡</td>
</tr>
<tr>
<td>S × L</td>
<td>1</td>
<td>4.66</td>
<td>0.21</td>
<td>1</td>
<td>14.98</td>
<td>0.91</td>
</tr>
<tr>
<td>S × M</td>
<td>2</td>
<td>31.69</td>
<td>1.45</td>
<td>2</td>
<td>14.93</td>
<td>0.91</td>
</tr>
<tr>
<td>L × M</td>
<td>2</td>
<td>20.61</td>
<td>0.94</td>
<td>2</td>
<td>39.77</td>
<td>2.41</td>
</tr>
<tr>
<td>S × L × M</td>
<td>2</td>
<td>20.42</td>
<td>0.93</td>
<td>2</td>
<td>7.87</td>
<td>0.48</td>
</tr>
<tr>
<td>Error</td>
<td>88</td>
<td>21.85</td>
<td>-</td>
<td>87</td>
<td>16.49</td>
<td>-</td>
</tr>
</tbody>
</table>

*p < .05  †p < .01  ‡p < .001

Discussion

Taken together, the results from the four tests administered during this study suggest that the effect of Concept Attainment lessons was small and short-lived, that the overall affects of Teaching Methods were reliable, and that differences related to students' Cognitive Styles, indexed by the Field Dependent/Field Independent dichotomy based on CEFT scores in this study, were a factor of some significance, but one which did not interact with the other experimental factors. The overall results pertaining to each of these factors have fairly clear-cut implications.

Concept Attainment Lessons. The time and effort expended on the Concept Attainment lessons appear to have been rather ineffective. Students who received the Concept Attainment lessons performed significantly better than those who did not only during and immediately after the primary instructional phases of the experiment. Thus the small but significant difference revealed by the first standardized test given at the end of the instructional activities became virtually non-existent eight weeks later. These data suggest that this type of pre-instructional activity may have some initial value in providing a framework for initial acquisition of new information, but that, once such information has been acquired, they serve little role in the retention of that information over the long term.
It is possible, however, that such lessons might prove more valuable in larger scale instructional programs. The present program was restricted to four periods of concept instruction and five periods of generalization-building activities. If additional units of specific instruction were used to which the same general concepts would apply, such lessons may show more substantial effects. On the other hand, the added time devoted to these activities in the scale of the present study did not yield long-term differences that would justify their use for a single unit of instruction.

**Teaching Methods.** The most reliable of the significant results in this study appear to involve the differences among the three methods of formal instruction used during Phase II. The expository method was considered the "control" method in this study, as it most closely resembles the traditional
method of social studies instruction used in many classrooms. In comparison to it, the Taba method yielded consistently better performance for both FD and FI students, suggesting that it should be a useful alternative to traditional methods. The inquiry method appeared to be comparable to the Taba method on the measures of the teacher-made test given immediately after Phases II and III were completed, but this advantage was completely eliminated when measured by the standardized JCEE tests that were administered only one and eight weeks later.

**Cognitive Style.** The overall differences in performance between FI and FD students in this experiment provide some support for the hypothesized superiority of FI learners in social studies learning. Significant differences were obtained in the T₁ and T₃ ANOVAs, but when initial differences were taken into account by the covariance analyses, the superiority of FI learners was no longer significant. Even these initial differences, however, support Witkin's (1977) prediction of cognitive style differences, and indexed by CEFT scores, in the learning of social studies concepts. The relative weakness of the effect resides in the fact that two of the analyses yielded no support for the hypothesis, especially the JCEE test given at eight weeks after instruction.

---

**Table 9**

Analysis of Variance (ANOVA) and Analysis of Covariance (ANOCOVAR) Summaries for T₄ JCEE Form A Test Given Eight Weeks after Phase III

<table>
<thead>
<tr>
<th>Source</th>
<th>ANOVA</th>
<th>ANOVA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>df</td>
<td>MS</td>
</tr>
<tr>
<td>Stanford Ach. (ANOCOVAR only)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Cognitive Style (S)</td>
<td>1</td>
<td>43.37</td>
</tr>
<tr>
<td>Concept Lessons (L)</td>
<td>1</td>
<td>27.96</td>
</tr>
<tr>
<td>Teaching Methods (M)</td>
<td>2</td>
<td>267.41</td>
</tr>
<tr>
<td>S × L</td>
<td>1</td>
<td>1.74</td>
</tr>
<tr>
<td>S × M</td>
<td>2</td>
<td>3.02</td>
</tr>
<tr>
<td>L × M</td>
<td>2</td>
<td>3.48</td>
</tr>
<tr>
<td>S × L × M</td>
<td>2</td>
<td>8.26</td>
</tr>
<tr>
<td>Error</td>
<td>88</td>
<td>28.34</td>
</tr>
</tbody>
</table>

*p < .05  
†p < .01  
‡p < .001
Over and above the main affects for cognitive style, the results of this study were consistently negative with respect to a persistent hypothesis in education, the existence of aptitude-treatment interactions. In its most general form, this hypothesis holds that various methods of instruction may differentially benefit students of various aptitudes; in its most optimistic form, it suggests that there may be certain methods of instruction that are "optimal" for students of different aptitudes. The present results provide no support for either view. The focal interactions would be the style by lessons, style by methods, and style by lessons by methods interactions for any of the four measuring tests. Examination of the 24 F ratios for the ANOVA and ANOCOVAR results of tables 3, 5, 7 and 9 show the largest of these F ratios to be 1.50, for the style by methods interaction from the ANOCOVAR for the first teacher-made test. The possibility of a statistical type II error (i.e., that the analyses failed to detect a "true" difference) seems, therefore, to be quite low. Not only are the relevant statistical values quite small, but the main effects of the variables in question were generally large enough that interaction effects of comparable magnitude should have been detected. The covariance results could be suspect too, in that interaction effects were given lower priority than main effects in the SPSS algorithm; but the ANOVA effects were no stronger than the ANOCOVAR results, and the only significant interaction of any type, the lessons by methods interaction for the second teacher-made test, was revealed by the covariance test. These data therefore suggest that the conclusion of no aptitude-treatment interactions in this study is valid, and that cognitive style as indexed by the CEFT scores does not interact with the instructional treatments of concept lessons and teaching methods as implemented in this experiment.

In summary, the overall effects of the factors investigated in this study, as measured by four formal assessments, can be given as follows:

1. Concept Attainment Lessons given prior to formal instruction appeared to facilitate performance immediately after formal instruction was completed, but this difference virtually disappeared by the eighth week after instruction.

2. Generalization building activities using the Taba Inductive Method were superior to the Inquiry and Expository Methods in the learning and retention of economics concepts by both Field Dependent and Field Independent students.

3. Within the limits of this study, there was no empirical support for the hypothesis of aptitude treatment interactions between factors of cognitive style and the two types of preinstructional activities.

References

Chickering, A. "Commentary: the Double Bind of Field Dependence/Field Independence in Program Alternatives for Educational Development." In S. Messick and


Introduction

This study explored the possibility that interracial contact experiences are factors which affect attrition and persistence among college undergraduates at Indiana University in Bloomington. Since it was discovered that 62% of the Black undergraduates dropped out of the University, as compared with 38% of the Latinos, 30% of the Whites and 28% of the Asian Americans (Bennett, 1982), Black students became a central focus of the study.

Indiana University on the Bloomington campus represents in many ways a classic interracial contact situation, the type of setting which holds interest for social contact theorists, in that many of the undergraduates have grown up in ethnically encapsulated environments. Whether they are from rural areas, small towns, inner cities or the suburbs, most students have been isolated from one or more of the ethnic groups present on campus. These students often hold fears, myths and stereotypes about members of the unfamiliar groups. College life does not necessarily afford opportunities to erode these negative prejudices and misunderstandings. Casual observation of campus life shows that ethnic encapsulation typically continues for many

*This research was funded by a grant from the Spencer Foundation.
students. While it may be true that much of the separatism is voluntary or unconscious, it is also true that there are few institutionalized efforts to foster positive interracial contact experiences. In a White-predominated school such as Indiana University, where 98% of the faculty and 93% of the students are White, it is possible for White students to go through their college career having had little contact with ethnically different students. This is not true for the Asian, Black or Latino students on campus. Because Indiana University provides this classic setting, information gleaned from the study may be useful to other similar predominantly White universities where there are relatively small numbers of Asian, Black and Latino students enrolled, and where the attrition rates among Black undergraduates are disproportionately high.

Several new areas of inquiry formed the theoretical basis for the research: stages of ethnic identity, social contact theory, and transitional trauma or alienation. These concepts have not previously been considered in studies of college student persistence and hold promise for studies of minority student attrition in particular.

Recent studies indicate an important factor in cross-racial interaction is the individual's sense of ethnic identity (Gay, 1982, Ford, 1979). Stage of ethnicity reflects the extent to which a person is comfortable with his or her ethnic identity, and is accepting of others with differing ethnic identities. Those undergraduates who come from ethnically encapsulated environments would be expected to be at lower stages of ethnicity (i.e. less open to ethnic diversity). To the degree that the cultural expectations in the home and university are similar, low stages of ethnicity may not hinder a student's social integration. A student at a low stage of ethnic identity however, would be less likely to be socially integrated into a culturally different institution than a student in a higher stage.

Social integration has been one of the theoretical bases for most of the recent theoretical models of student attrition (e.g. Spady, 1971; Tinto, 1975; Pascarella, 1980). A student at a high stage of ethnicity therefore, would be less likely to drop out of school. For Black students in a White predominated university, there is the additional consideration of stage of ethnicity, or openness to human diversity, among members of the predominant White group. For “higher stage” Blacks, social integration could be precluded by “lower stage,” or more ethnically encapsulated Whites.

It is likely that stage of ethnicity and interracial contact are interrelated. According to social contact theorists, positive racial attitudes develop out of positive interracial contacts (Cohen, 1979; Pettigrew, 1973; Amir, 1976; Schofield; 1978; Byrne, 1961; Devries and Edwards, 1974; Wiser, 1971). Contact per se does not insure positive results, and in fact may confirm previous myths and stereotypes. There are certain conditions that should be established if these contacts are to be positive:

1. Equal status for minority and majority group members;
2. A social climate that supports interracial association;
3. Contacts that are sufficiently intimate to produce reciprocal knowledge and understanding between groups; and
4. Cooperative interaction aimed at achieving shared goals.

If one accepts contact theory as an explanation of appropriate conditions for positive intergroup contact, then there are at least two reasons why interracial contact is an appropriate variable to include in a study of attrition among ethnically diverse students. First, school desegregation research has shown that school and classroom climates of acceptance, and educational settings which foster positive intergroup contact, significantly raise the academic achievement of minority students (St. Johns, 1971 and 1975; Weinberg, 1976). Therefore, a consideration of the University’s interracial climate should be important even to those who feel the primary purpose of a University is academic achievement. Students achieve better in climates of acceptance. And second, positive interracial contact experiences on the college campus can be structured and facilitated. Should positive interracial contact experiences on campus prove to be a predictor of persistence, then the university can “do something” to increase the opportunities for positive interracial contact.

Several specific questions guided the research. To what degree are high attrition rates among Black students due to the trauma faced by many Black students who enter a predominantly White university? When academic entry skills are held constant, how does a student’s stage of ethnicity and history of interracial contact affect his or her persistence? What factors influence a student’s level of satisfaction at the university? Does positive interracial contact and an openness to ethnic diversity improve a student’s chances of persistence? These questions were of particular interest for identifying programs which would likely have the greatest impact in reducing attrition among Black students.

The first part of this paper presents a conceptual model of Black student attrition. The second describes the study’s variables, including two alternative definitions of interracial contact, and the methodology. The third part contains an estimation of the model using both definitions of contact, and discussion of the findings.

A Conceptual Model of Black Student Attrition

The structure of the conceptual model of student attrition comes from the synthetic model of student attrition (Bean, 1982a). In that model, prematriculation characteristics of students (e.g., high school grades) are expected to influence the way in which the student interacts with the institution, which, in turn, leads to the student’s attitudes toward the institution. These attitudes are expected to affect intent to leave, and intent is viewed as the immediate precursor of actual attrition.

The conceptual model of Black student attrition (Figure 1) contains nine
Figure 1
A Conceptual Model of Black Student Attrition

Precollege Positive Interracial Contact

+ + + + + +

Collegiate Positive Interracial Contact

Satisfaction

Intent to Drop out

Precollege Academic Performance

Stage of Ethnicity

Less Trauma

College GPA

(Career Goals)*

Parents' Education Attainment

Preparedness

Key: direction of effect
direction presumed to be positive or negative

"+", "−"

*Career goals were included in the original model. Due to a high number of missing cases, this variable was dropped from the analysis. Prior to the deletion it was established that no significant relationships existed between career goal certainty and any of the other variables in the model.

independent variables with intent to leave as the criterion variable. The hypothesized relationships between the variables are indicated by arrows, with causal effects operating from left to right. One limitation of the study is that reciprocal relationships are neither hypothesized nor tested (e.g., the model is assumed to be recursive). The signs on the arrows indicate whether a relationship is expected to be positive or negative, and each arrow indicates an underlying proposition. For example, the arrow from satisfaction to intent with a "−" sign indicates the following proposition: Successively higher amounts of satisfaction will likely lead to successively lower amounts of intent to leave. The definitions for these variables, as well as the items used to operationalize the measures, are described below.

Intent to drop out is used as a surrogate measure for actual attrition (Bean, 1982b). In this model three variables are expected to have direct effects on intent to drop out: satisfaction, college GPA, and "less trauma." Thus a student who is satisfied, attaining satisfactory grades, and not traumatized will be more likely to stay in school. Less trauma is also expected to have a direct positive influence on satisfaction. Three variables
(collegiate positive interracial contact, stage of ethnicity, and preparedness) are all expected to have a direct positive influence on both less trauma and satisfaction. Preparedness is also expected to have a direct influence on college GPA. Three background variables are also included in this study. Precollege positive interracial contact is expected to have a positive influence on both collegiate positive interracial contact and stage of ethnicity. Precollege academic performance (indicated by high school GPA, SAT/ACT scores, and high school preparatory curriculum) is expected to influence preparedness and college GPA. Parent’s educational level is expected to have a positive effect on college GPA (higher SES would be expected to have higher college GPA), and a positive effect on preparedness. Other relationships in the model, such as between precollege positive interracial contact and less trauma, will be estimated, but are hypothesized to be non-significant.

Variables Used in the Study

There are a number of variables which affect students' academic achievement and personal development in college. Academic entry skills (e.g. high school GPA) have already been shown in other research to be the best overall predictor of college GPA. These skills undoubtedly influence the academic success of Black students. However, because a disproportionately high number of Black freshmen at the University have low entry skills,* and many minority students who are not in academic difficulty elect to leave the University prior to completing a degree, it was felt that other factors which influence their college success must be identified. In addition to a number of variables used frequently in previous research, this study selected three variables not previously considered in studies of college student-persistence: interracial contact experiences, stage of ethnic identity, and feelings of trauma. The variables will be discussed according to their arrangement in the study's Conceptual Model of Black Student Attrition shown in Figure One, next section.

Precollege Positive Interracial Contact; Collegiate Positive Interracial Contact. Positive interracial contact (PIC) is defined as a positive assessment of past interracial contact. Precollege PIC indicates a student’s assessment of interracial contact before matriculation, and Collegiate PIC indicates a student’s assessment of PIC at the university.

Fourteen questionnaire items focused on the quality of contact the respondent had experienced “with people of an ethnic background different from my own” both before and after coming to the University. Respondents were asked to note the extent to which they agreed or disagreed with the

*Approximately 52% of the Black students enter the University through a Special Services Program (GROUPS). 63% of these “high risk” students drop out of the university as compared with 61% of the Black non-Groups students.
statement that intergroup contact experiences before coming to college have been "negative and unpleasant for me"

1. where I live
2. in my classes
3. on teams
4. at parties
5. where I worked
6. in their family home
7. in my family home.

Response options ranged from 1-strongly agree to 4-strongly disagree.

Respondents were also asked to note the extent to which they agreed with the statement that since coming to college "these experiences have been very pleasant and rewarding for me." The computation for PIC is described in footnote one.

The Number of Different Precollegiate Interracial Contact Settings (PRENO) and the Number of Different Collegiate Interracial Contact Settings (ATNO). PRENO measures the number of different types of social settings which the respondent rated as having been pleasant or unpleasant interracial contacts before coming to the University. ATNO measures the number of different types of social settings which the respondent rated as having been pleasant or unpleasant interracial contacts while enrolled at the University. Both PRENO and ATNO are assumed to be indicators of contact frequency, including no contact, while Precollege and College PIC are measures of positive or negative contact experiences. Therefore it was possible to compare the relationships between different conceptions of interracial contact and other variables included in the model. The computation of PRENO and ATNO is explained in footnote two.

Precollege Academic Performance. Precollege academic performance is defined as academic performance before entering college. It indicates a student's entry level skills as indicated by high school GPA, curriculum (e.g. college prep, general ed.), and verbal SAT and ACT scores.

High school GPA and verbal SAT or ACT scores were indicated by self reports. In addition, the students reported whether or not they had pursued a college preparatory course of study in high school. The influence of each variable was assessed independently in the path model.

Parent's Educational Attainment. Parent's educational attainment is defined as the highest grade level or degree completed by the student's mother and father. A substantial amount of research on status attainment (e.g. Sewell and Hauser, 1976) has indicated that parental education has a significant positive influence on the number of years of education completed by a student. Thus, lower educational attainment of parents will likely lead to higher rates of attrition. To the extent that Black parents have lower levels
of educational attainment than White students’ parents, one would expect the attrition rate to be higher for Blacks than for Whites.

Mother’s and father’s educational attainments were measured with separate items which asked:

Which of the following best describes your mother’s/father’s educational background?
- a. Did not go beyond 8th grade
- b. Attended but did not complete high school
- c. Graduated from high school
- d. Attended but did not complete college
- e. Graduated from college

**Stage of Ethnicity.** Stage of ethnicity is defined as the degree to which a student is comfortable with his or her ethnic identity and open to other ethnic groups. The specific indicator of stage of ethnicity in this study comes from the Banks typology as indicated by a score on Ford’s Teacher-Student Interaction (1979). This scale contained 42 items. The coefficient alpha was .89 which is above the level of .80 recommended by Nunnally (1967) for basic research.

A number of researchers have developed typologies of ethnic self identity (eg. Banks; 1979, Cross, 1971; Milleones, 1976). These typologies are similar in that where an individual falls on the typologies indicates his or her level of self identity, self-acceptance and openness to ethnic or racial diversity. Both Cross and Milleones have focused on the psychological liberation of oppressed groups, particularly Black Americans, and have validated measures of ethnic self identity related to political activism. The Banks typology taps into the individual’s degree of openness to human diversity from a multi-ethnic perspective and has been applied to educational settings (Ford, 1979). Because of its applicability to an educational environment, the Banks conception of ethnicity was selected for this study.

According to James A. Banks, the following five stages of ethnicity are possible.

**Stage 1. Ethnic Psychological Captivity:** During this stage the individual has internalized the negative ideologies and beliefs about his or her ethnic group that are institutionalized within the society.

**Stage 2. Ethnic Encapsulation:** Stage 2 is characterized by ethnic encapsulation and ethnic exclusiveness, including voluntary separatism.

**Stage 3. Ethnic Identity Clarification:** At this stage the individual is able to clarify personal attitudes and ethnic identity, reduce intrapsychic conflict, and develop positive attitudes toward his or her ethnic group, and the individual learns to accept self.

**Stage 4. Biethnicity:** Individuals within this stage have a healthy sense of ethnic identity and the psychological characteristics and skills needed
to participate in their own ethnic culture, as well as in another ethnic culture.

Stage 5. Multiethnicity: Stage 5 describes the idealized goal for citizenship identity within an ethnically pluralistic nation. The individual at this stage is able to function, at least at minimal levels, within several ethnic socio-cultural environments.

Assuming the validity of the Banks typology, students whose ethnicity differs from cultural expectations in the university would need to be at stage 3, 4, or 5 in order to make a successful transition. Individuals in stages 4 or 5 would be most open to ethnic diversity. The degree of openness among the respondents is expected to be more important than the stage of ethnicity per se. However, openness to ethnic diversity is believed possible only after an individual has developed a strong sense of self-awareness and acceptance (ie. Stage 3).

Transitional Trauma: Preparedness and Less Trauma. There is some question about whether Transitional Trauma, Less Trauma, and Preparedness are 1, 2 or 3 variables. Factor analysis of responses to the twenty-five items contained in the questionnaire's section on “Transition to College” yielded two factors, and they are tested as two in the model (eg. Prepare influences Less Trauma).

Preparedness. Preparedness was defined as the extent to which a student feels prepared (eg. has the requisite skills) to be a successful student. Other studies have indicated that similar responses (eg. being confident in being a successful student) make an important contribution to reducing intent to drop out (Bean & Creswell, 1980). The variable was measured by the following items:

1. I am familiar with most of the words and expressions used by my professors here at University ____________
2. I feel that I speak standard English very well.
3. High school did a good job of preparing me for my studies at University ____________
4. I'm making the adjustment to college life very well.
Response options ranged from strongly agree, scored 1, to strongly disagree, scored 4. The reliability coefficient for PREPARE was .506, indicating a relatively low level of consistency in responding to the measure.

Less Trauma. Transitional trauma in schools is defined as the level of alienation a student faces when s/he is unfamiliar or uncomfortable with some of the norms, values, verbal and nonverbal communication modes, and expectations that predominate in the school community. A student may use up so much energy in making the transition, that little energy is left for learning. There are of course many white students, particularly those from rural areas and small geographically isolated towns who experience transi-
tional trauma in school. In fact, it is likely that *most* college freshmen who leave home experience it to some degree. Trauma is highest among students who are most unfamiliar with the school's formal and informal social environment. Those minority students who are informed about these expectations may still experience alienation due to negative prejudice and discrimination on the part of some teachers and classmates. Research documents the fact that many teachers have lower expectations for the academic achievement of minority students (Bennett, 1980 & 1981; Bennett & Harris, 1982; Rist, 1970; St. John, 1976) and interact with them in intellectually limiting ways (Civil Rights Commission Report, 1973; Gay, 1974).

There exists little, if any, study of transitional trauma (i.e. alienation due to cultural conflict) related to race and ethnicity at the university level. However, since there is evidence that these students often experience transitional trauma in elementary and high schools, there is good reason to expect that they also experience it in colleges and universities.

The variable, LESS TRAUMA, was measured by the following items:

1. There are professors at University ________ who don't like the way I talk.
2. Even though they don't say anything, I can tell by their facial expressions that a lot of people here at University ________ really have negative feelings about me.
3. I feel a great deal of conflict between what I'm taught here at University ________ and what I've always been taught at home.
4. My idea of what is physically attractive is very different from the predominant view at University ________.
5. Sometimes I feel embarrassed on campus because I don't wear “appropriate” clothes.
6. My professors underestimate my ability to achieve in their class.
7. I often feel upset because life at the University is so different from what I'm used to.
8. I'm having a very difficult time understanding what many of my professors expect from me.

Response options ranged from Strongly Agree, scored one, to Strongly Disagree, scored four. The reliability coefficient for LESS TRAUMA equals .694.

**College GPA.** A student's grade point average in college is presumed to have a strong influence on whether or not a student remains in school. Minimum GPA's are established for continued enrollment and for admission to various departments and programs of study, and poor academic achievement may increase a student's feelings of trauma and dissatisfaction. College GPA was measured by self report, which has been shown in other research at the university to be virtually the same as actual GPA (Bean, 1983).
Satisfaction. Satisfaction is defined as the degree to which being a student is viewed as a positive experience. Satisfaction has been considered as an intervening variable in other attrition models (Spady, 1970; Tinto, 1975), but empirical results have been mixed (Spady, 1971; Bean, 1980).

The following questionnaire item was scored as a measure of college satisfaction and retention variables:

How satisfied are you in your decision to come to the University?
   a. Very satisfied
   b. Satisfied
   c. Neutral
   d. Unsatisfied
   e. Very unsatisfied

It was assumed that these students who were most satisfied with college were also more likely to complete their degree. Trauma was believed to influence satisfaction, with those students feeling less trauma also feeling most satisfied.

Dropout. Dropout is defined as the expressed intention of not intending to graduate from an institution.* In order to preserve the anonymity of the respondents, actual attrition data from registration tapes could not be obtained. Previous studies (Bean, 1982b; 1978) demonstrate that intent to leave can be used as a surrogate measure for actual attrition, where the correlation between intent and dropout was .58. Intent to leave was indicated through the response to the question: “How likely is it that you will complete your undergraduate degree at this University?” Response categories were high, moderate, or low likelihood.

Data Source and Methodology

A computerized Master List of students from which the interview and questionnaire samples were drawn was developed as follows. The University's Black, Latino and Asian American undergraduate student computerized enrollment records were obtained for Fall of 1978 through the Spring of 1982. The entry semester of each Black, Latino, and Asian-American undergraduate was noted. End of the semester enrollment figures were consulted so that students who enrolled at any time during the semester were included, i.e. late registrants and pre drop and add dropouts. Each semester that each individual was enrolled at Indiana University during the 1978–82 time span was recorded. Thus it was possible to trace each student’s enrollment status over a four year period. Transfer students were excluded and students who graduated in three years were included as “persisters”. An identical analysis was used on a small random sample of the

*We reversed this variable and made it an indicator of intent to complete a degree at the University.
white undergraduate students, and comparisons of the attrition-persistence rates among Black, Latino, Asian-American, and White students were examined. Each student's name, campus and/or home address and phone number were also obtained, so that students could be contacted to complete the questionnaire or be personally interviewed.

The data collected in this research were derived primarily from the 145 item student paper-pencil questionnaire (ppq), which was developed and pilot tested during the year prior to its use in the study. The ppq contained measures of Stage of Ethnicity, Interracial Contact and Transitional Trauma, and included a personal data section. Contained in the personal data section were GPA, SAT or ACT scores, parents' education levels, and questions which focused on the respondent's attitudes and plans about continued study and graduation from Indiana University. Personal interviews were also conducted with samples of Black undergraduates,persisters and dropouts.

The survey was administered during the 1981-82 academic year, a time when 22,000 undergraduates were enrolled, of whom about 93 percent were White. Nearly 700 of the university's undergraduate minority student population of approximately 1500 were randomly selected from the Master List for inclusion in the study. Each student was personally contacted and asked to complete the questionnaire. Over ninety percent agreed to do so. The sample included 498 Black undergraduates, 69 Latino undergraduates, and 62 Asian-American undergraduates. A random sample of 321 of the 22,000 White undergraduate student population also completed the questionnaire. The rate of return was 90% for White students contacted.

During the Spring and Summer of 1983, 52 Black student persisters (i.e. enrolled at Indiana's Bloomington campus for the past 3 or 4 years) were randomly selected from the Master List and were personally interviewed. Another 41 Black student drop outs were also interviewed. Of the approximately 300 Black undergraduates who entered I.U. as Freshmen in the Summer or Fall of 1978 and left I.U. before graduating, 150 were randomly selected to be interviewed, only 42 could be located at the obtained home address. Forty-one agreed to be personally interviewed. Of the 53 persisters contacted, only one refused to be interviewed. These interviews were taped and open-ended, and lasted approximately one hour. The persister interviews took place in a private location on campus or in the student's apartment off campus. The dropout interviews were conducted in places selected by the interviewee. Most occurred in one of Indiana's large urban areas. Interviewees were randomly selected from the Master List described above. All interviews were conducted by a Black doctoral student who had extensive experience with naturalistic inquiry and the interview process.

The original research design included follow up interviews of a random sample of students who completed the questionnaire. This became impossible because many students omitted their ID number. Therefore, the degree
to which there may be overlap between the questionnaire and interview samples is not known. The interviews were conducted 1½ years after the student population was surveyed, and only 3rd and 4th year students were eligible for interviews, while the survey included second semester freshmen, sophomores, juniors, and seniors. Interviewees were not asked if they had completed the questionnaire, and none referred to it.

A major purpose of the interviews was to help corroborate the findings of the questionnaire. These results will be reported below. A fuller discussion of the interviews is beyond the scope of this paper but will be available elsewhere (Wallace, in progress).

In order to examine the differences between White and Black male and female students on the ppq data, analysis of variance was used which included the main effects and first level (two-way) interaction terms.* The model of Black student attrition was estimated using ordinary least squares regression in a path analytic framework. The first estimation used Precollege PIC and College PIC, and the second estimation used PRENO and ATNO.

Findings for the Model of Black Student Attrition

Prior to the analysis using causal models, all cases with missing data were dropped from the sample. The reduced sample contained 145 Black females, 129 Black males, 127 White females, and 73 White males. No systematic biases were believed to be present, with one exception; students with the lowest standardized test scores were probably underrepresented. It was assumed that students with the lowest scores were most likely to forget their scores and leave the item blank, as instructed. Thus, students with the lowest levels of academic entry skills were more likely to be dropped from the sample.

The model of Black Student Attrition shown in Figure One was used to examine relationships between the variables of interest in this study. A separate analysis was run for Black females, Black males, White females, and White males. It was evident that the Model worked differently with each race/sex group and appeared to fit best with Black students (Bennett and Bean, 1983). This paper reports the findings for Black students only. In the discussion of results which follows, a description of the original path analysis using PIC will precede an analysis of findings associated with the new measures of contact (ie. PRENO and ATNO).

Black Females. As predicted, Black females who felt most satisfied with their decision to attend the University had the strongest intention of completing a degree (See Figure Two). Less Trauma predicted Intent indirectly

*Results of this analysis are too extensive to be included here and are available elsewhere (Bennett, 1982 and 1983a). However, Table One displays by race/sex group a summary of means for the study's variables. Significant differences are noted.
through Satisfaction, but did not directly affect the criterion. Those Black females who felt less traumatized at the University also felt more satisfied and expressed stronger intentions of completing their degree. Contrary to what was expected, college GPA was not related to Intent or to Satisfaction.

Collegiate positive interracial contact were positively related to satisfaction and stage of ethnicity, which also predicted satisfaction. Thus, Black females who experienced positive interracial contact on campus and who were at higher stages of ethnicity were more satisfied with the university.

Preparedness had a direct influence on both Less Trauma and College GPA, and influenced Satisfaction indirectly through Less Trauma. Black females who felt confident about their preparation for college life experienced less trauma and earned higher grades.

Precollege positive interracial contact (PIC) had a positive influence on both collegiate positive interracial contact and stage of ethnicity, as hypothesized. The direct influence of precollege PIC on preparedness was not expected. Black females who experienced positive interracial contact prior to attending the University, experienced more positive contact on campus, were at higher stages of ethnicity, and felt more prepared for college life.

Precollege academic performance had a mixed effect on intent among Black females. High standardized test scores were positively related to preparedness and indirectly to college GPA, but negatively related to satisfaction. Apparently those who scored highest on the Verbal SAT and ACT were least satisfied with their decision to attend the University, although they felt most prepared for college life. In addition to the positive influence of precollege PIC on feelings of preparedness noted above, preparedness was also influenced by a college preparatory curriculum in high school, high school GPA and Father's education level. High school GPA predicted college GPA both directly and indirectly through preparedness. These findings were all expected. The negative relationship between Less Trauma and College GPA was not expected. Apparently Black females who earned the highest grades at the university felt more trauma and presumably were less satisfied. This is consistent with the negative relationship between high test scores and satisfaction among Black females.

Black Males. There were similarities in how the model worked with Black males and Black females. Among Black males, Intent was predicted by feelings of satisfaction, less trauma and preparedness. A trend was also discovered between college GPA and Intent. As hypothesized, all the relationships were positive with the exception of college GPA. Less Trauma also had a direct positive influence on satisfaction, which was expected. Black males who expressed the strongest intention of completing their degree at the university were those who felt more satisfaction with college, less trauma, more prepared for college life, and who tended to earn lower grades.
Figure 2
Black Females (N = 145) and a Conceptual Model of Black Student Attrition

Key: ~+ significant at .001 level
~* significant at .01 level
~ significant at .05 level
~--- significant at .10 level

R² = .24
R²adj = .17
Figure 2a
Black Females (N = 145) and a Conceptual Model of Black Student Attrition, Using PRENO and ATNO

Key:
- significant at .001 level
- significant at .01 level
- significant at .05 level
- significant at .10 level
For Black males Positive Interracial Contact on campus had a direct positive influence on both satisfaction and less trauma. Stage of ethnicity had a direct positive influence on feelings of preparedness and less trauma. Prepare had a direct positive influence on College GPA, Intent, and a negative influence on less trauma. As expected, Black males who experienced more positive interracial contact on campus also felt more satisfied and less traumatized. Those who were at higher stages of ethnicity also felt less trauma and more preparedness for college life. Black males who felt more preparedness for college life expressed a stronger intent to complete their degree, and those who felt most prepared also earned higher grades. The negative relationship between feeling prepared for college life at the University and feeling more traumatized was not expected. This seems consistent with the negative relationship between college GPA and intent to complete a degree.

Of the precollege academic performance variables, only high school college preparatory curriculum emerged as a significant predictor. A college preparatory curriculum was positively related to feelings of preparedness and of less trauma. There was also a positive relationship between high school GPA and feelings of preparedness. For Black males, in contrast to Black females, standardized tests and parents' educational backgrounds were not significantly related to other variables in the model.

Similar to Black females, precollege Positive Interracial Contact (PIC) was positively related to both stage of ethnicity and collegiate PIC for Black males. Precollege PIC also had a direct influence on Less Trauma. Black males as well as Black females, who experienced precollege PIC experienced college PIC, were more open to ethnic diversity, and were less traumatized by college life.

In the second path analysis the new interracial contact variables were used: PRENO and ATNO. The next section presents an analysis of these results in terms of similarities and differences associated with the two definitions of interracial contact (ie. Precollege PIC and College PIC versus PRENO and ATNO). The second path analyses are displayed in Figures 2a and 3a but will not be described because of the similarities with Figures 2 and 3.

Analysis of the Two Contact Variables Used in the Model of Black Student Attrition

The different measures of contact do not affect the overall fit of the model. For both path analyses, Intent is predicted by satisfaction for Black females, and by feelings of satisfaction, less trauma and preparedness among Black males. And with one exception, the same variables in each path analysis predict satisfaction for both males and females (ie. less trauma, campus contact, standardized test scores and stage for females, and less trauma for males.) There are however, some interesting differences
which do emerge for certain key variables and suggest that the different measures of contact do act differently in the model, especially between males and females.

PRENO and Precollege PIC seem to operate in the same way for males when it comes to stage of ethnicity, feelings of less trauma and ATNO or College PIC. Precollege contact per se is positively related to higher stages of ethnicity, feelings of less trauma, and interracial contact on campus. No apparent distinction exists between the pleasantness of the contact and the number of different types of contact situations. Some contact, good or bad, appears to be better than no contact. It may be that the majority of precollegiate interracial contacts among males were positive or recalled and perceived as positive. This seems likely since both PRENO and Precollege PIC predicted higher stages of ethnicity, i.e. positive contact experiences lead to higher stages of ethnicity.

Both ATNO and college PIC among males are also positively related to less trauma. This shows that interracial contact on campus is related to reduced trauma, whether the contact is measured in terms of different situations or pleasantness. However, ATNO is negatively related to both preparedness and stage of ethnicity, while college PIC has no significant relationship with either. Apparently Black males who feel most prepared for campus life at the university, and who are at higher stages of ethnicity experience fewer interracial contacts on campus. Perhaps this is because campus interracial contacts occur rarely, even for these more “prepared” and “open minded” Black males, whereas less open and less “prepared” Black males may have many more frequent, but negative interracial contacts. This is possible since ATNO is a measure of the number of different contact situations with no consideration of quality.

The contact variables have some different effects for females. First, PRENO is a direct predictor of intent. The greater the number of different interracial contact situations experienced by Black females before entering college, the stronger is their intent to complete a degree at the university. Both ATNO and College PIC are directly related to satisfaction among females (rather than to less trauma as for males.) Interracial contact on campus has a positive influence on satisfaction, whether it is measured in terms of pleasantness or the number of different contact situations.

ATNO influences satisfaction, and PRENO influences intent and ATNO. Otherwise, these contact frequency measures have no significant effects, except for a negative relationship between ATNO and Prepare. As was true for the males, females who felt most prepared reported the fewest number of different contact experiences on campus. Once again it is possible that the less “prepared” students have many more negative interracial contacts. Or it is possible that those students who feel most confident about being ready for college life prefer to associate primarily with other Blacks. However, since College PIC influences Preparedness indirectly through stage of ethnicity, the first explanation is more likely to be correct.
Figure 3
Black Males (N = 129) and a Conceptual Model of Black Student Attrition

Key:
- solid line: significant at .001 level
- dark line: significant at .01 level
- medium line: significant at .05 level
- dashed line: significant at .10 level

Father's Education
- Precollege Positive Interracial Contact
- (1.64) .21
- (2.75) .27
- (2.49) .32
- (1.67) .30

Mother's Education
- Standardized Test Scores
- College Prep Curriculum
- High School GPA
- College GPA

Colleges Positive Interracial Contact
- (1.22) .17
- (1.56) .16

Less Trauma
- (1.65) .18
- (.55) .14

Satisfaction
- (1.51) .21
- (.41) .28

Intent to Complete Degree

R² = .21
R² = .13
Figure 3a
Black Males (N = 129) and a Conceptual Model of Black Student Attrition, Using PRENO and ATNO

Key: significant at .001 level
--- significant at .01 level
----- significant at .05 level
---------------- significant at .10 level

R² = .21
R² = .13
Table 1
Summary of Means and Standard Deviations for Variables Used in Path Analysis with Significant Differences Noted (*)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Black Female (N = 141)</th>
<th>White Female (N = 127)</th>
<th>Black Male (N = 126)</th>
<th>White Male (N = 73)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>X</td>
<td>SD</td>
<td>X</td>
<td>SD</td>
</tr>
<tr>
<td>Positive Precollege* Contact</td>
<td>.822</td>
<td>.655</td>
<td>.9629</td>
<td>.589</td>
</tr>
<tr>
<td>Positive College            Contact*</td>
<td>.363</td>
<td>.672</td>
<td>.533</td>
<td>.610</td>
</tr>
<tr>
<td>High School GPA**</td>
<td>2.780</td>
<td>.667</td>
<td>3.417</td>
<td>.570</td>
</tr>
<tr>
<td>Stage of Ethnicity**</td>
<td>3.738</td>
<td>.541</td>
<td>3.858</td>
<td>.433</td>
</tr>
<tr>
<td>College Prep**</td>
<td>.546</td>
<td>.500</td>
<td>.724</td>
<td>.449</td>
</tr>
<tr>
<td>College Curriculum</td>
<td>2.32</td>
<td>.730</td>
<td>2.976</td>
<td>.840</td>
</tr>
<tr>
<td>College GPA**</td>
<td>3.752</td>
<td>1.063</td>
<td>4.307</td>
<td>1.012</td>
</tr>
<tr>
<td>College Satisfaction**</td>
<td>3.440</td>
<td>1.632</td>
<td>3.472</td>
<td>1.768</td>
</tr>
<tr>
<td>Mother's Education**</td>
<td>2.929</td>
<td>1.407</td>
<td>4.063</td>
<td>1.207</td>
</tr>
<tr>
<td>Father's Education**</td>
<td>2.950</td>
<td>1.104</td>
<td>3.449</td>
<td>.897</td>
</tr>
</tbody>
</table>

Key: * = significant at .05 level
** = significant at .001 level
Precollege PIC and College PIC both are positively related to stage of ethnicity. Therefore it appears that openness to human diversity is related more strongly to perceived pleasantness of interracial contact than to the reported numbers of different contact situations (which may be positive, negative, or absent).

For both males and females, the precollege contact variables (ie. Precollege PIC and PRENO) were both strong predictors of their respective college contact variables (ie. College PIC and ATNO). Students who reported positive interracial contact experiences before college also reported them on campus. And students who reported a higher number of different interracial contact experiences prior to college also reported a high number on campus.

Summary and Discussion of Interview Results

Interview findings related to interracial contact experiences among persisters and dropouts are summarized in Table 2. Although financial condi-

<table>
<thead>
<tr>
<th>I. Race of friends at home prior to college</th>
<th>Persisters (N = 52)</th>
<th>Drop Outs (N = 41)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mostly White</td>
<td>6%</td>
<td>0</td>
</tr>
<tr>
<td>Mostly Black</td>
<td>52%</td>
<td>63%</td>
</tr>
<tr>
<td>Mixed</td>
<td>37%</td>
<td>37%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>II. Number of White classmates in high school</th>
<th>Persisters (N = 52)</th>
<th>Drop Outs (N = 41)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All White</td>
<td>6%</td>
<td>0</td>
</tr>
<tr>
<td>Some</td>
<td>83%</td>
<td>48%</td>
</tr>
<tr>
<td>None</td>
<td>12%</td>
<td>51%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>III. Feelings about Whites in general</th>
<th>Persisters (N = 52)</th>
<th>Drop Outs (N = 41)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>67%</td>
<td>41%</td>
</tr>
<tr>
<td>Negative</td>
<td>17%</td>
<td>24%</td>
</tr>
<tr>
<td>No Response</td>
<td>15%</td>
<td>34%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IV. Participation in campus activities</th>
<th>Persisters (N = 52)</th>
<th>Drop Outs (N = 41)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>48%</td>
<td>41%</td>
</tr>
<tr>
<td>No</td>
<td>44%</td>
<td>34%</td>
</tr>
<tr>
<td>If for Blacks only</td>
<td>8%</td>
<td>27%</td>
</tr>
</tbody>
</table>
### Table 2 (continued)

<table>
<thead>
<tr>
<th></th>
<th>Persisters (N = 52)</th>
<th>Drop Outs (N = 41)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>V. Feelings about campus activities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive</td>
<td>21%</td>
<td>27%</td>
</tr>
<tr>
<td>Negative</td>
<td>15%</td>
<td>39%</td>
</tr>
<tr>
<td>No feelings expressed</td>
<td>58%</td>
<td>34%</td>
</tr>
<tr>
<td><strong>VI. Feelings about White professors at Indiana University</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive</td>
<td>35%</td>
<td>49%</td>
</tr>
<tr>
<td>Negative</td>
<td>65%</td>
<td>51%</td>
</tr>
<tr>
<td><strong>VII. Feelings about White classmates at Indiana University</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive</td>
<td>25%</td>
<td>32%</td>
</tr>
<tr>
<td>Negative</td>
<td>75%</td>
<td>41%</td>
</tr>
<tr>
<td>Indifferent</td>
<td>0</td>
<td>27%</td>
</tr>
<tr>
<td><strong>VIII. Date Whites</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>42%</td>
<td>46%</td>
</tr>
<tr>
<td>No</td>
<td>58%</td>
<td>54%</td>
</tr>
<tr>
<td><strong>IX. Member of Black fraternity or sorority</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>33%</td>
<td>41%</td>
</tr>
<tr>
<td>No</td>
<td>67%</td>
<td>59%</td>
</tr>
<tr>
<td><strong>X. Finances:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spending money</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>62%</td>
<td>51%</td>
</tr>
<tr>
<td>No</td>
<td>38%</td>
<td>49%</td>
</tr>
<tr>
<td>Sufficient money for clothes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>56%</td>
<td>54%</td>
</tr>
<tr>
<td>No</td>
<td>44%</td>
<td>46%</td>
</tr>
<tr>
<td>Sufficient money for food</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>75%</td>
<td>56%</td>
</tr>
<tr>
<td>No</td>
<td>25%</td>
<td>44%</td>
</tr>
<tr>
<td>Access to a car</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>41%</td>
<td>44%</td>
</tr>
<tr>
<td>No</td>
<td>59%</td>
<td>56%</td>
</tr>
<tr>
<td>Live in off-campus apartment</td>
<td></td>
<td></td>
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<tr>
<td>Yes</td>
<td>56%</td>
<td>44%</td>
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<tr>
<td>No</td>
<td>44%</td>
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tions were not a variable in the study's model, it was included in the inter-
views and is also reported in Table 2.

Results from the interviews support the previous findings that positive in-
terracial contact experiences are related to Black student persistence in pre-
dominantly White universities. When compared with the dropouts inter-
viewed, persisters had more non-Black friends and high school classmates
prior to college, and they expressed more positive feelings about Whites in
general. However, they also expressed more negative feelings about their
White professors and White classmates at Indiana University, than did their
Black classmates who had dropped out. This is consistent with the lower
means for positive interracial contact on campus than for precollegiate ex-
periences. It is likely that the persisters, still being emersed in the university
environment, felt the negative effects more strongly than did those students
who have been absent for 1–3 years.

The fact that more dropouts than persisters participated in exclusively
Black campus activities, including Black fraternities, also supports the no-
tion that interracial contact experiences on campus may be an important
factor for persistence. This should not imply that interracial contact ex-
periences are more valuable than intraracial experiences; both are very
likely necessary. Other research has shown that climates of interracial ac-
ceptance are characterized by strong *intra* racial friendship and interaction,
as well as interracial friendship and interaction (Bennett, 1981). However,
on predominantly White college campuses, opportunities for Black students
to associate with other Blacks are limited by scarcity of numbers. Participa-
tion only in exclusively Black social activities, therefore, may be an indica-
tion of social isolation on campus. In fact, 39% of the dropouts expressed
negative feelings about collegiate social activities as compared with 15% of
the persisters.

Concerning personal financial conditions as a student, dropouts tended
to experience more problems than persisters though the percentage dif-
ferences are not large. Persisters tended to have more spending money,
more money for food and were more often able to live off campus. Fifty-six
percent of the dropouts lived on campus compared to 44% of the persisters.
The differences appeared minimal however, concerning access to a car and
money for clothing. Overall, more than 40% of all the Black students inter-
viewed had experienced severe financial problems, which affected their
ability to remain in school, and it does seem outrageous that 31 students out
of the 83 interviewed were sometimes unable to obtain sufficient food. But
the relatively small differences between persisters and dropouts in this
regard indicate that financial difficulties are not a sufficient explanation for
the high dropout rate among Black undergraduates.

It should also be noted that the interviewees were asked about their SAT
scores, and that 31 of the 41 dropouts and 33 of the 52 persisters could not
recall their scores. If we can assume that students who score high on the
SAT are most likely to remember their scores or be most willing to report them, this result can be interpreted as support for the previous questionnaire-based-findings that standardized test scores are not good predictors for Black student satisfaction and persistence. It would appear that many persisters as well as the dropouts did not score in the highest ranges.

**Conclusions and Recommendations**

Interracial contact experiences prior to college and on the college campus are factors which help explain Black student attrition. Students who experienced positive interracial contact prior to college experienced more positive interracial contact on campus and expressed less trauma and/or more satisfaction with their decision to attend the University. Precollege positive interracial contact experiences were also related to higher stages of ethnicity, and either directly or indirectly to less trauma in college and stronger feelings of being prepared for college. These findings support school integration policies recommended by social contact theorists. It appears that desegregated public schools can help foster college success among their college bound graduates by implementing programs designed to provide students with positive interracial contact experiences.

Positive interracial contact on campus is a direct predictor of satisfaction among Black students. However, Black students at the University feel significantly less satisfied with their school than the other groups on campus (Bennett, 1982), and this dissatisfaction is directly related to their uncertainty about remaining at the University. In related research at the University, it was discovered that, compared with Asian, Latino, and White undergraduates, black students expressed more trauma, less satisfaction, weaker intent, and less positive interracial contact both before and at college (Bennett, 1982).

The measures of interracial contact used in this research are exploratory. There are no guarantees that the two measures of positive interracial contact (Precollege PIC and College PIC) are indicators of contact situations that encompass the necessary conditions of contact posited by contact theorists (ie. equal status, etc.). It is only known that they were perceived through recollection as having been positive. Although the PIC measures fit into the model in ways consistent with contact theory (both Precollege PIC and College PIC are positively related to Stage of Ethnicity) these measures are at best gross indicators of positive interracial contact as defined by the theory. Results from the personal interviews do, however, support the conclusion that positive interracial contact experiences do have an impact and should be built into the total educational environment in order to provide greater academic and social support systems for Black students in particular.

When interracial contact is measured in terms of the number of different types of contact situations experienced (ie. PRENO and ATNO) we may
have another indicator of quality rather than frequency as assumed. Very possibly PRENO and ATNO get at the comprehensiveness of interracial contact. If so, it is probable that those students who reported the widest range of contact experiences (i.e. parties, their homes, my home, etc.) also experienced the most positive contact. Nevertheless, by measuring contact in terms of PRENO and ATNO it was possible to include respondents who had experienced no interracial contact at all. For Black students at the University this would be equivalent to students who had experienced no interracial contact outside of their classes.

The research findings suggest that PRENO and Precollege PIC may be similar indicators of positive contact. PRENO predicts intent for Black females and stage of ethnicity for Black males. However, ATNO is more ambiguous. Although ATNO predicts less trauma for both males and females, it is negatively related to feelings for preparedness for males and females and to stage of ethnicity for males. A likely explanation is that interracial contact on campus is perceived to be mainly negative, especially for Black students who feel less prepared for college life and who are at lower stages of ethnicity. The notion that interracial contact on campus tends to be negative is supported by the fact that the means for college positive interracial contact are much lower than the means for precollege PIC. Precollege positive interracial contact is twice as high as college positive interracial contact for Black students and for White students. PRENO is only slightly higher than ATNO for each race/sex group. Therefore, we may infer that precollege interracial contact is more positive than interracial contact on campus.

The findings which show that Black students who experience positive interracial contacts on campus also experience less trauma and greater satisfaction with college life agree with the growing body of school desegregation research. This research consistently shows that students who are a numerical minority achieve at significantly higher levels in classroom climates of acceptance.

Given that Black students at the University drop out at a level above 60%, that Black students feel significantly less satisfied and more traumatized than any of the other groups on campus, and given that this dissatisfaction predicts dropping out, it is important and encouraging to note that positive interracial contact on campus leads directly to greater satisfaction among Black students, and indirectly to intent to complete a degree at the University. Assuming, as this research does, that we value a racially diverse student population at the University, steps must be taken to create more campus programs which meet the necessary conditions for making interracial contact positive.

Recommendations for change must involve the total education environment and include possibilities such as the following:

1) Encourage high schools to offer college preparatory courses for col-
lege bound students who have not been enrolled in a college preparatory curriculum—even during the final semester. Course instructors could gain support and recognition by becoming adjunct instructors at the university.

2) Encourage public schools to foster positive intergroup contact.

3) Provide more role models for Black students, plus mentors and support systems on campus, such as the Collegiate Partner program. In White predominated schools unable to recruit Black faculty due to financial cutbacks, faculty exchange programs could be set up with historically Black colleges and universities.

4) Structure campus programs which encourage positive interracial contact experiences, both social and academic, such as the University of Hawaii's Freshmen Seminar Program for high risk students. Course enrollments are ethnically diverse, limited to 20 and develop an academic peer support group.

5) Consider the possibility of looking at culturally based differences in students' cognitive styles, and structure some instructional programs so that they respond more effectively to student learning style strengths.

6) Gather specific information about the special economic needs Black students may experience on the college campus and develop responsive programs. While all students from low income families must be considered, the problem is likely to be more pervasive among Black students because of the disproportionately high level of economic deprivation among Black Americans as a whole and because Black students appear to be more alienated and less integrated into the university environment (Allen, 1982; Smith, 1980).

For example, work study employment or cafeteria employment which includes free meals could be guaranteed to needy students. In either case it would be essential to provide an effective orientation for entering students, and to ensure that racially diverse groups of students are involved.

7) Establish a living-learning center on campus for ethnically diverse groups of students, including international students. The center could become a valuable resource for the entire university community.

Endnotes

1. All null responses are given a code of 0 by SPSS. The zeros were recoded to values of 2.5. It is assumed that no response means the respondent did not have interracial contact in the situations described in the question, so the degree of pleasantness is null. The value of 2.5 gives those who did not respond a rating in the middle, indicating it was neither pleasant nor unpleasant. For some cases the respondents gave a response of 5. This was not a valid response. The assumption being that they intended to choose the last response and did not notice the difference in the number of valid responses in the questions and the response sheets. A value of 2.5 was then subtracted from the value of the response for all of the questions. This gave each
item a range of possible values of −1.5 to 1.5 with no responses now having a value of 0. The questions were worded in terms of the degree of unpleasantness, so the direction of the ordering of the response values is opposite to that desired. An average response was calculated by adding the responses to all seven questions and then dividing by negative seven. This gave us a range of values that remains −1.5 to 1.5 that is in the proper direction. The negative number in the denominator reversed the order of the responses. Positive values indicate responses of pleasantness in the contacts. Negative values indicate responses of unpleasantness in the contacts.

2. PRENO is constructed from a count of the 0 values on the recoded items, which indicates the number of null responses. This count is then subtracted from seven, which gives a count of the number of questions for which responses were given. As each of the questions dealt with a different type of social setting, PRENO gives a measure of the number of different types of social settings which the respondent rated as having had pleasant or unpleasant interracial contacts, before coming to IU.

ATNO is constructed from a count of the 0 values on the recoded items. This count of the null responses was then subtracted from seven to give a count of the number of responses given for the different types of social settings the respondent reported having had pleasant or unpleasant interracial contacts. For both this and PRENO there is an assumption that ratings were given if the respondent had contacts in those social settings, so that these two variables give a measure of the different types of social settings in which the respondent had interracial contacts.

3. This analysis was performed using Exploratory Factor Analysis Program (EFAP), Version 2, Release 1, by International Educational Services in Chicago (JORESKOG and SORBOM, 1978). This program approaches factor analysis differently from the more familiar SPSS program, and yields a probability coefficient which if above 1, is considered significant. The probability level for Prepare was established at .857, and for Less Trauma at .311.

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Cognitive Development and Historical Reasoning in Social Studies Curriculum

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Introduction

Confusion seems the best way to describe the K-12 social studies curriculum. The conflict of purposes, objectives, and philosophies embedded within the NCSS Curriculum Guidelines provides evidence of the confusion. Political compromise, at the expense of curricular clarity, appears to be a basic value of the professional leadership. In the absence of national leadership, a social studies curriculum of most worth rests squarely upon leaders in local school divisions.

In designing a K-12 social studies curriculum, decision-makers in local schools must be concerned about: (1) the developmental characteristics of children and adolescents; (2) reasoned articulation of social studies knowledge; and (3) practice in the use of social studies skills. Extant social studies curricula typically consist of offerings selected from discrete disciplines that have been inserted at seemingly appropriate time spaces in the K-12 pro-
gram. Articulation across social studies disciplines has largely been the responsibility of the student. The purpose of this article is to provide local decision-makers with a theoretical framework for the organization of social studies concepts into an articulated and sequential curriculum based upon developmental concerns.

**Curriculum Paradigm**

Assuming that history and the social sciences provide the substance from which the social studies is drawn (Wesley, 1964), research on concepts and concept clusters from selected academic disciplines offers a promising organizing principle for curriculum development (Price, Smith and Hickman, 1965; Newton, 1971.) Content analysis (Holsti, 1969), the systematic counting and organizing of units of communication (in this case concepts), applied to materials from social studies disciplines has been used to produce a set of concept clusters that comprise a structure(s) of those disciplines (Hansen, 1977; Carter, 1974.) The social studies faculty of a school can use content analysis to produce their own structures of the disciplines. They first identify textual sources that are consistent with their social studies philosophy. Content analysis applied to these teacher selected textual sources produces a list of social studies concepts that can be organized into clusters (Carter, 1974) similar to Diagram #1:

Carter's study suggests that concept clusters identified through content analysis can be classified as "concrete" for the primary grades, "concrete-to-abstract" for the transescent student and "abstract" for high school students. Ordering concept clusters from concrete to abstract closely parallels the "advance organizer" model of David Ausubel. Social studies concepts, however, are not easily grouped into a single, precise hierarchial

**Diagram 1**

- **General Concepts:** language generic to all social studies disciplines  
  - ex. "wants"  
  - ex. "needs"

- **Core [Primary] Concept:** the advance or primary organizer giving order and meaning to the cluster  
  - ex. "opportunity cost"  
  - ex. "allocate resources"

- **Secondary Concepts:** language shared between social studies disciplines but essential to comprehension of the primary organizer.  
  - ex. "choosing"
system, but local curriculum committees, operating from immediate community values, can create their own unique hierarchies. Once classified on abstract qualities, concept clusters can be articulated (vertically) across age and grade levels. Articulation between grade levels is dependent upon a thorough understanding of cognitive development—concerns addressed in subsequent sections. Concept clusters can also be sequenced within grade levels on principles of advancing complexity. [Articulation and sequencing might appear as in Diagram 2.] Concept clusters presented in the primary years of schooling are reinforced as they reappear in more advanced concept clusters in the secondary school years.

Content analysis applied to social studies content yields both product (substantive) and process (methodological) concept clusters. Methodological concept clusters in history and the social sciences include all of those social studies skills of primary importance in curriculum development. Historical reasoning, for example, requires that students develop and practice:

- acquisition skills (e.g. chronological sequencing, locational skills)
- inquiring skills (e.g. making inferences)
- moral choosing (e.g. distinguishing between judgments of value and fact)

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Diagram 2

- **Adolescents** (High School) “abstract concepts”
  - ex. price elasticity
- **Transcendent** (Middle School) “concrete/abstract” concepts
  - ex. demand
- **Childhood** (Primary School) “concrete concepts”
  - ex. wants/needs

**HORIZONTAL SEQUENCE**
Like concept clusters of content, method concepts can be classified as concrete or abstract operations. Consequently method concept clusters can be organized vertically (articulated) and horizontally (sequenced) in the same manner as presented in Diagram 2.

It is the union of method and substantive concepts that permits students to develop generalizations that give meaning to social studies and hopefully their social world. Social studies generalizations are the goals of the curriculum design as the products of the instructional process. Learned through rote memory, however, social studies generalizations lack significance for the child or adolescent. Where the learner is an active participant, taking ownership (Hunt and Metcalf, 1968) of and responsibility for social studies generalizations, curriculum goals are more likely achieved. Generalizations produced by the application of method concepts (skills) to substantive concept clusters provide significant insights into the social world. This linkage between substantive and method concepts forms the basic unit in curriculum organization (see Diagram 3.)

Generally the social studies curriculum is designed around topical (substance) outlines and accompanying skill (method) charts. Under the best conditions skills and substance are linked together only after decisions have been made about the scope and sequence of substantive concepts. The curriculum process can be enhanced where linked method/substance concepts become the basic unit. After all it is the process of linking method/content that really determines the instructional process in executing the curriculum.

Diagram 3

The characteristics of linking method and substantive concepts into a curriculum unit is based upon the social studies outcome (generalization) to be produced and the developmental characteristics of the learner.
For example, assume that a local committee has given the concept “resource allocation” a prominent place in the social studies curriculum. A concept cluster with “resource allocation” as its core or advance organizer might cluster “demand, supply, scarcity, limited resources” as secondary concepts and “wants and needs” as general concepts. If the method concept linked to “resource allocation” is some aspect of historical reasoning (e.g., cause and effect), the instructional plan would draw upon an historical context. Such a plan might compare economic life in the English colonies with that experienced in the Spanish and French colonies. Certainly a unit comparing colonial economies would make such comparisons within another aspect of historical reasoning—chronological sequence (time.)

On the other hand, if “resource allocation” were linked with the method concept “prediction”, the unit context would more than likely be economics. The teaching plan might now ignore chronological sequence while providing repetitive examples from which students could “predict”, “test” and produce appropriate generalizations.

A concept ordered social studies curriculum is not new. The Syracuse research on social studies concepts (Price, et. al., 1965) provided significant information for curriculum choices in the 1960’s. The Stanford studies on generalizations from selected social studies subjects (Rambeau, 1954) provided linkages among concepts for the development of curriculum goals. While this early research made a significant contribution, it was not particularly effective in bringing change to the social studies curriculum. Content analysis gives local curriculum committees a tool to produce their own list of concepts and generalizations (be involved in the process) and to actively perceive the conceptual overlapping within and between disciplines.

Identifying and classifying social studies concept clusters is only the beginning in designing an effective social studies curriculum. Forming the linked method/substance concepts requires sound judgments about human development and instructional design. It is in the human development area, specifically cognitive development, that developers have been particularly remiss in planning social studies curricula. Using historical reasoning as the example, it can easily be demonstrated how little attention has been given to cognitive development as the basis for articulation between social studies subjects. Somewhere around the fourth grade real social studies begins (ask any fourth grader); at least that is where schools decide to list space in the overall curriculum as social studies. Generally, this fourth grade space is labeled as state history whether it is history or not. Unfortunately, state history has been the popular choice without giving much consideration to cognitive development:

Since the methodology of history involves both chronology and narrative, where are these concepts appropriately introduced in accordance with cognitive development?
In other words when can transescents begin to master the language of history, to comprehend history as product (narrative/story) and history as process (historical reasoning)? Is it adequate that students achieve memory of the story in order to retell it with some measure of accuracy, that is achieve unexamined belief in the story that is told? Since historical reasoning depends upon the historian's (in this case student as historian) ability to serve as the instrument through which objectivity is achieved or attempted, we might ask "When in the course of cognitive development are children, transescents and/or adolescents capable of engaging in this task?" Primarily, when is it appropriate for students to practice historical reasoning where the students participate in the formulation of conclusions?

Using history and historical reasoning as examples, a social studies curriculum based upon the developmental characteristics of children and youth depends upon the developer's understanding of three critical concerns:

1. **Representational Thought**: How do children and youth conceptualize about events from the past while acting within the present? How does this process change and develop?

2. **Historical Reasoning**: Once children/youth can conceptualize the past, when and how do they reconstruct and interpret the past?

3. **Instructional Concerns**: Given that we understand how students think and reason about the past, how do developmental concerns influence instructional plans?

**Representational Thought**

To understand how children comprehend historical content, it is necessary to investigate how children represent thought. Children first conceptualize about objects and events in their immediate environment. These early conceptualizations are shaped by the subjective (egocentric) nature of the child. Comprehension of events and objects in the present environment are dependent upon the development of images and language. A scientific or conventional language is essential if children are to reason objectively about objects and events in the past. For example, if children are to hypothesize in the present about the past, they must be able to internalize objects and events of the past through conventional language. Although this language is native to the child, they need to learn how to use language as an analytical tool much as the mathematician uses signs and numbers. An understanding of the interdependence between thought and language, therefore becomes an essential concept to the discussion of historical reasoning as an ultimate goal within a social studies curriculum.

Piaget (1968) maintained that the most profound tendency of all human activity is progression toward equilibrium. The theory of cognitive development as described by Jean Piaget involves the restructuring of knowledge through successive stages. In each stage, the individual initially assimilates an experience that creates a disturbance in the usual method by which that
individual understands his environment. Old procedures fail to reconcile the new event with past information. Thus, the individual must seek an explanation that satisfies the disturbance. The person may try a number of solutions before accommodation of the new experience. The results of this process is a new structure that temporarily explains the novel experience. Piaget refers to this process as equilibration. Equilibration is a process that embraces two countervailing forces: assimilation and accommodation. The new experience, once assimilated, creates an instability that must be satisfied. Existing patterns of thought change to accommodate the new experience and hence, intellectual development occurs.

Accommodation requires more than a simple alteration of a thought pattern. The individual must test this new explanation in his environment to see if it explains the newly assimilated idea or event. If discrepancy remains, the process of equilibration continues. Thus, the individual seeks balance between the self and the environment, between the internal and the external. According to Piaget (1968), cognitive development utilizes the process of equilibration through four stages: sensori-motor operations, preoperations, concrete operations and formal operations. Each progressive stage is characterized by a more abstract mode of representational thought. In sensori-motor operations (birth-two years) children learn to comprehend and represent their drives, needs and feelings through physical manipulations of objects. During preoperations, children develop mental representations (images) of events and objects removed from their presence. Children can imitate an object, person or event without an apparent stimulus. They may cry for a lost toy, use a fork to represent an airplane or replicate a temper tantrum observed in another child. Aiding the development of the thought process language begins to emerge serving as a more efficient and objective way to communicate thought.

Symbolic play is the term given for children's abilities to reconstruct meaning for absent objects and is believed to be the mediator between thought and language for the preoperational child. Symbolic images link memory and meaning with representational language. Prior to concrete operations symbolic play evolves into sociodramatics where children exchange their ideas, feelings and aspirations with others by imagining themselves as other characters. Their symbolic roles become social and realistic as they imagine themselves as a teacher, parent, doctor or bus driver.

With the onset of concrete operations (ages 6-7), children rely less on symbolic objects or props to help them conceptualize and express their ideas. Children's play progresses from spontaneous dramatics to games with rules (Piaget, 1962). If a problem has concrete referrents which are available to the child either through overt experiences, concrete symbols or images, they can view a problem from several different perspectives. For example, a second grader with manipulatives can add to obtain a sum and reverse the
operation with subtraction to check the result. A nine or ten year old can solve concrete problems if they are reminded to make mental images of the problem's contents (Levin, 1973). The concrete operational child's reasoning ability, cannot be manipulated solely through oral or written language. Language in combination with pictures, dramatics, induced imagery and other similar activities are needed to think logically and to concretize the abstract aspects of language.

To summarize the development of representational thought and its relationship to language development through concrete operations, four levels of representation should have been acquired:

1. overt sensori-motor experiences combining objects and actions
2. symbolic, subjective mental representation, or image
3. social signs, or words
4. internal organization of images and words for concrete logical thought

How are language and imagery development linked to historical reasoning? Piaget and Inhelder (1971) term the mediation function of imagery during concrete operations as "semitic", that is accomodation of the individual's idiosyncratic images and the collective social signs of language. Without the imaginal and language processes working together, Piaget (1969, 1971) doubted if concrete thought could develop because:

1. Language is social and common to many people, making language more abstract than images. Consequently, a child must concretize the words he uses by means of his own system of personal images (Piaget and Inhelder, 1980:380).

2. Images are needed to supplement verbal signs for information which language cannot easily explain, such as the coordination of time and space relationships. Therefore, images are needed to evoke and conserve memories of past experiences (Piaget and Inhelder, 1971:381). Consequently, Piaget and Inhelder (1971) believe that children before the age of twelve can not predict outcomes, draw conclusions, sequence details, or reverse solutions to verbal or written problems, unless they experience the problem overtly or can create its contents with dynamic imagery. After twelve years of age, they maintain that language and thought can become interdependent. Consequently, children moving into formal operations can use oral and written language to comprehend and reflect their ideas.

Although children can learn the factual content of history by rote, such knowledge is not evidence that children can reason logically within the historical context. History instruction must accommodate the development of children if a conceptual understanding of historical content is to be achieved. Factual learning which is not based on a concrete transition from experience to image to language comprehension inhibits higher levels of thinking. History learned by rote (e.g. without experience and imagery) may disguise a student's inability to think logically. Piaget never argued that equilibration compelled cognitive development but he believed that interactions among maturation, physical experience and social
interaction made equilibration a prominent participant in these interactions.

**Historical Reasoning**

In *The Nature of the Social Sciences*, Charles Beard offered four criteria for defining history: actuality, record, knowledge and thought. History becomes "the whole reach of time from the dateless beginning to the latest hour." (p. 50) Historical reasoning, then, is the ability to select, arrange, and interpret "the whole reach of time" through the eyes of the present. That most crucial variable is not simply time but the ability to understand the relationship between the past, the present and the future as metaphors of time. Historical reasoning, like other forms of thinking, employs metaphors that the historian uses to analogize. Through this process of drawing analogy, he reconstructs the past. In *The Process of Thinking*, Marc Belth argues that thinking historically involves a three-step process in which this ability to analogize is inherent:

1. Accepting the symbolic identity of the people and events of history.
2. Concretizing these people and events in imagination.
3. Identifying (empathizing) with them.

The student of history, then, initially recognizes that the people and events described are symbols. The words of the historical narrative or description are themselves symbolic of the past events and the people for which they stand. Secondly, the student must experience vicariously in imagination what the historical narrative envisions as the experiences of the past. Finally, the student needs to establish empathy with the people and events of the past. The following model demonstrates the operation of the equilibration process in historical thinking. The model is a juxtaposition of Belth's stages of historical reasoning with the Piagetian model of cognitive development.

<table>
<thead>
<tr>
<th>Belth</th>
<th>Piaget</th>
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<tr>
<td>(1) Accepting Symbolic Identity of the People and Events of History</td>
<td>(a) Assimilation of Symbols</td>
</tr>
<tr>
<td></td>
<td>(b) Use of Strategies to Organize Symbols into Existing Categories or the Creation of New Categories (Accomodation)</td>
</tr>
<tr>
<td></td>
<td>(c) People and Events of History Accepted Symbolically (Equilibration)</td>
</tr>
<tr>
<td>(2) Concretizing them in Imagination</td>
<td>(a) Assimilation of Concrete Images into Imagination</td>
</tr>
<tr>
<td></td>
<td>(b) Accomodation of Images as Symbols of Past Reality</td>
</tr>
<tr>
<td></td>
<td>(c) Development of Historical Imagery (Equilibration)</td>
</tr>
</tbody>
</table>
(3) Identifying (empathizing) with them
(a) Assimilation of the Historical Personage into the Affective Domain
(b) Student Accomodates Through Understanding of Similarities with Events and Personal Circumstances or Current Situations in his Environment
(c) Integration of Historical Categories into Total Cognitive Perspective

The process of thinking historically, then, is the result of an on-going process by which the individual develops historical imagery. Such imagery is integral for the process of equilibration and hence, to the cognitive development of the individual.

Attempts to explain the relationship between cognitive development and historical thinking are somewhat limited in their analytical depth. A primary example is the work of R. N. Hallam who used “Piaget’s criteria to assess the answers of one hundred pupils aged eleven to sixteen years on three historical passages” (Hallam, p. 164). While Hallam claimed that his subjects rarely reached formal operations, the methodology of his research contaminated his conclusions. As Laville and Rosenweig noted, Hallam’s historical passages repeated the same problems that he had criticized. Traditional textbook history offers no understanding of how historical thinking proceeds. Yet, his methodology utilized “a series of texts, historical narratives modelled on those found in traditional textbooks, each accompanied by a dozen questions.” (Laville and Rosenweig, p. 56) Hallam’s research becomes an interesting case study in the failure of social scientists to find common ground between historical method and cognitive development.

The critical variable common to history and cognitive development is time (Friedman, 1982.) If history is the narrative of past events recorded through analogies constructed in the present, then historical reasoning is dependent upon the comprehension of time. Equilibration explains how individuals develop imagery as the foundation of language. The individual's capacity to use language metaphorically is dependent upon the development of memory. It is the combination of imagery, language and memory that allows for the primitive development of duration (time) in the individual.

The critical problem then becomes not simply the development of a concept of time but a sense of movement in time. This is hardly a new concept of history. The American Historical Association's Commission on the Social Studies developed a history curriculum “based on the assumption that the chief function of instruction in history in the schools is to give the pupils a strong sense of social development in time...” (Beard, p. 214) The Piagetian perspective attempts to explain this relationship between time and speed by saying that “speed is fundamental to the understanding of time and
precedes it in the development of children's thinking" (Pulaski, p. 179). The child sees time as a function of the relative sequence of positions. With the attainment of formal operations, the individual can deduce that "speed is independent of time and depends on the order of passing positions in space." (Pulaski, p. 190). With the coordination of the concept of speed with the sense of time and space, the ability to develop historical imagery becomes a reality. The student of history must be able to think hypothetically-deductively using the metaphors and analogies of past constructed in present time. The task is obviously difficult given the symbiotic relationship between the secondary teacher and the history textbook. As Laville and Rosenweig have argued, the inability to understand history may not be an artifact of developmentalism but rather an indication of poor teaching methods in history (p. 63). The perspective offered here cannot preclude the possibility that textbook curricula deny advancement in historical thinking. Omission of the basic ideas of developmental theory, however, cannot improve historical thinking or teaching. From Piaget, educators can extract the notion of the progressive, experience-based process of equilibration and how this process promotes cognitive development together with the acquisition of social knowledge and physical maturation. It is not essential that educators embrace Piagetian theory's age/stage conceptualization to the mutual exclusion of all other constructs. The development of thought and language and the importance of imagery are essential aspects of equilibration and the origin of historical thinking. The marriage of ages and stages need not become a stumbling block to educators who recognize the intrinsic value of a theory that explains how thinking originates and develops. Accordingly, there has been no attempt here to describe the prerequisite ages for the attainment of formal operations in historical thinking but rather an attempt has been made to explain what the process of historical thinking entails. The age/stage controversy and the debate which surrounds it can only augment or detract from the Piagetian construct. It cannot disprove the theory's principle of equilibration.

**Instruction: A Developmental Sequence**

The stages of symbolic thought (experience, images and words) and the developmental levels of logical operations [temporal and spatial concepts] must be combined to assure continuity in both content and process. James Moffett's "Spectrum of Discourse" (1968: p. 47) was designed to facilitate the organization of a K-12 language arts curriculum, but its guidelines are practical for the development of a social studies curriculum interweaving historical narrative and historical reasoning. As indicated in Figure II, Moffett divides his curriculum paradigm into three domains: language, logic and content. Language and content presented in his model closely parallels our discussion of representational thought and language, that is that language discourse is initiated by interior dialogue and progresses
developmentally through abstract study. Logic, critical to historical reasoning, is presented in Moffett's model by three developmental stages:

Chronology (present)
Analogy (past)
Tautology (future)

During the early stage of development (chronology), Moffett suggests that students should encounter experiences in discourse where they conceptualize and apply an understanding of the past, present and future time in narrative. The language methodologies involved, reporting and recording, assist students to shift from their present subjective perceptions to more objective reflections of experiences in the past. Recording and reporting exercises can be combined with role playing, simulations and other concrete

**Figure I**  
"The Spectrum of Discourse"

<table>
<thead>
<tr>
<th>Logic</th>
<th>Language Methodology</th>
<th>Level of Discourse</th>
<th>Content of Narrative</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHRONOLOGY</td>
<td>Interior Dialogue (egocentric speech)</td>
<td>Recording, the drama of what is happening. (present)</td>
<td>PLAYS</td>
</tr>
<tr>
<td></td>
<td>Vocal Dialogue (social speech)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Correspondence</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Personal Journal</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Autobiography</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Memoir</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANALOGY</td>
<td>Biography</td>
<td>Reporting, the narrative of what happened (past)</td>
<td>FICTION</td>
</tr>
<tr>
<td></td>
<td>Chronicle</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>History (as text)</td>
<td>Generalizing, the exposition of what happens</td>
<td>ESSAY</td>
</tr>
<tr>
<td>TAUTOLOGY</td>
<td>Science</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Metaphysics</td>
<td>Theorizing, the argumentation of what will, may happen . . . (future)</td>
<td></td>
</tr>
</tbody>
</table>

Based upon Moffett, 1968, p. 47
strategies to help children transform their subjective ideas into a more objective framework.

For Moffett, analogy (as logic) requires that students encounter biography, chronicle and history as methods through which they can interpret, infer and analyze the content of past experiences in the present. Abstract reasoning developed through historical narrative parallels Piaget's formal operations. (See Figure I)

Moffett designates tautology as the most abstract form of logic. Essentially, tautology in this context corresponds to an equilibrium between present thought and a scientific universal language whereby individuals can predict and test their assumptions through refined signs—e.g. $A + B = C$ or $A < B < C$. The ability to predict (future) is dependent upon the ability to use reason and logic in the present and the past (history.) Thus the predictive aspects of social studies are dependent upon some early developmental aspects of historical reasoning.

Piaget professed that formal operations became complete around fifteen years of age. As indicated in previous discussion, we believe that for most adolescents such reasoning abilities are not possible unless the individual has first experienced and mastered concrete methods of thought. If we are to prevent the inhibition of abstract reasoning, students in social studies classes must be evaluated and taught in accordance with their developmental characteristics rather than by age or grade placement.

Much overlap occurs in all levels of Moffett's model. The “Spectrum” serves only as a continuum to facilitate an understanding of how children move as language users and thinkers from the first person role in sociodramatics to the impersonal third person utilizing a universal language in discourse with an anonymous audience. Figure II was developed as an aid in curriculum development. The content of figure II consists of an integration of Piaget (symbolic representation and concrete operations) juxtaposed with a presentation of instructional activities based upon the Moffett paradigm.

In the classroom, some practical aspects of instruction can aid the student in the development of historical reasoning. Given the responsibility for promoting the development of historical thinking, what can the classroom teacher do? Ausubel's “advance organizer model” utilizes the structure and logic of a discipline to promote the concepts of that discipline in a hierarchical arrangement. The top of the hierarchy would contain the very broad concepts which become inclusive of concepts at successively lower stages. Following the Piagetian notion of cognitive development, the conceptual arrangement on this hierarchy would move concrete to abstract. Ausubel argues that each disciplines' concepts are unique and, therefore, teaching these core concepts to the student provides the student with a “road map” of the discipline. In history, these concepts would include methodological concepts—historiography—that secondary students could use to under-
# Figure II
Guide to Instructional Planning

<table>
<thead>
<tr>
<th>Piagetian Stages</th>
<th>Progression of Representational Image (Piaget)</th>
<th>Activities Based Upon the “Spectrum of Discourse” (Moffett)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensory-Motor (0-18 mos)</td>
<td>experiences classification</td>
<td>Interior Dialogue (egocentric speech)</td>
</tr>
<tr>
<td>Preoper. (18 mos-3 yrs)</td>
<td>mental representations symbolic play object constancy sociodramatic play</td>
<td>Recording Dialogue (social speech) Play Language Experience Stories Fairy Tales Recording Natural Events (seasons, temperature or tree growth, etc.) Sorting clothes (ex. by seasons, seriate by size)</td>
</tr>
<tr>
<td>Concrete Operations (3-10 yrs)</td>
<td>arbitrary signs games with rules (sequence) writing Arithmetic (seriation) reading space relationships</td>
<td>Reporting Correspondence Personal Judgments Autobiography Memoirs Fiction (myth/legend) Interviews Timeline of Self (relate to events) Class Newspapers Maps, Schedules, Graphs</td>
</tr>
<tr>
<td>Formal Operations (10 yrs-?)</td>
<td>time Relationships</td>
<td>Generalizing (use advance organizers) Biography (heros) Chronicle History (as text) Essay Community History Family Trees Theorizing Scientific method Metaphysics</td>
</tr>
</tbody>
</table>

62
stand how history comes to be important to anyone at all! For the teacher, the structural framework of concepts, both substantive and methodological, help him/her choose "advance organizers" that provide a symbolic framework for promoting the logical structure of the discipline. In history, for example, the secondary teachers could build a lesson or unit around "a film, a descriptive paragraph, a question, a demonstration, or a statement" whose substance "must be clearly understood and continuously related to the material it is organizing" (Joyce and Weil, p. 175).

**Summary**

Using the concept cluster approach to curriculum development in the social studies provides several advantages. First, school divisions can correlate local concerns with legitimate social studies concerns. Local teachers and supervisors can develop a unique conceptual fabric for the social studies within which they can specify appropriate aspects of method (skill development) and generalizations of substance as curriculum outcomes. This type of involvement is the most likely manner through which teachers and supervisors can shed their dependence upon academic disciplines and textbook publishers. Secondly, Social studies becomes the is (not are) for the curriculum. Thirdly, the concept and generalization structure of the curriculum are clearly identified and communicated permitting both product and process evaluation. Finally, social studies concepts and generalizations can be arranged in an articulated framework that rests upon sound judgments of human development. A curriculum that provides for the developmental capacities of students while addressing the substance and implementation of instruction offers the most pragmatic solution to the conflict that characterizes the K-12 social studies curriculum.

**References**


I am grateful to the editor for the opportunity to reply to Stephen J. Thornton's criticisms, and for the opportunity to continue this debate in the pages of TRSE. My reply comes in three parts: First, those points at which I concede that I was mistaken, confused, or unclear or about which I think there may be more agreement between us than Thornton's interpretation would seem to allow; second, those areas where there seems to be genuine disagreement and where I would like to defend my position; and third a brief restatement of my main arguments in light of the criticisms. I will conclude with some discussion of theory and research in social education.

In the original article I make a number of fairly large claims. As a part of my support for those claims I make some arguments and refer readers who might find the arguments inadequate to a number of places where they are developed at greater length. This I understand to be the function of references. If a reader thinks my arguments are ill-supported, confused, and fundamentally wrong-headed then that reader may sensibly not follow up the references, reasonably anticipating merely more of the same. If, however, someone decides to write and publish a response to the article it seems odd that such a person should not bother to glance at any of the items
referred to. Both self-interest and courtesy would seem to require it. Ob-
viously I should have been sufficiently clear in my arguments that no
reference hunting should be necessary, and clearly I have failed in this
regard. In mitigation perhaps I could plead that I was trying to support a
complex set of large claims in a small space, and in further mitigation I will
argue that not all the confusion is mine.

I hope readers of TRSE will forgive me if I try to abbreviate my reply by
indicating as I go along places where I have made certain arguments at
greater length. Also in my reply to the three responses published in Cur-
riculum Inquiry, I make some concessions and take some arguments fur-
ther, and will not therefore repeat those here, even though they touch on
some points Thornton makes.

My second appeal for readers' indulgence concerns the length of this re-
ply. If someone shouts at you "You're nuts!" it is difficult to make a telling
defence of one's sanity with the same economy. One can remain silent, of
course, and achieve enviable economies of time and effort. But in cases of
criticisms of one's arguments, if one wishes to defend them, it is often
necessary to take more space sorting things out than it does to make the
criticism.

I

I must concede that I have been, in this article and elsewhere, too facile in
moving from some of Dewey's statements to the expanding horizons form
of curriculum. Also, to the extent that I seemed to have suggested that
Dewey wished to base the curriculum as a whole on children's experience I
am clearly at fault. (I should add that I certainly do not think that he did,
having argued only what the quotations I used from Dewey's writings seemed
to say plainly—that the initiating of a topic in the curriculum should move
from children's experience.) I acknowledge that throughout I probably do
not interpret Dewey's meanings adequately. There is, however, a serious
problem in attempting to deal with any of Dewey's writings—an example of
which I will give below. Here I would like to note only that nearly every pro-
fessional educator in North America accepts that Dewey has been pro-
foundly misunderstood, and present interpretations of Dewey's position on
both very general and very particular matters show enormous diversity. Yet
nearly every professional educator I have encountered in North America
seems confident in his or her own interpretation of Dewey. It is as though
Dewey's writings are so complex and diverse that they can be relatively
readily absorbed to each individual's beliefs.

I concede also that my use of "knowing" was sloppy. (Though I did note
"These represent quite different kinds of 'knowledge,' and attempting a
comparison of them as kinds of knowledge would be a bit odd." p. 199. It is
a bit odder of Thornton to make this point back at me as though it is his in-
sight. I also added that children "know (these categories) in the profound
sense of organizing experience meaningfully within them" p. 213.) I accept a number of Thornton's criticisms here, but not his central point, which I will deal with below. I wonder also whether his need to make his argument so briefly has not led him to suggest a more radical division in young children between feeling and knowing or between emotion and reason than he actually believes to be the case. He asks whether his discussion of children's "intellectually haphazard" way of "categorizing...their emotions" may "be just what Egan meant," adding "but if it is he needs to say so, and most important of all, he needs to tell us what he means by 'knowing.'" I do not mean what Thornton writes in this section and I have at some length written about this topic (in Educational Development, New York: Oxford University Press, 1979; and forthcoming in Children's Access to Meaning in Curriculum: through fantasy and story to reality, Chicago: University of Chicago Press—oh, the ironies.)

I agree with what I assume is Thornton's position that no subject matter is inherently trivial. I am a little alarmed that my words could be interpreted this way. I argued that the requirement that a topic be connected with present experience, when present experience is interpreted crudely in terms of the content of present experience, can trivialize many topics. It tends to collapse the alien to the familiar, rather than stretch concepts of the familiar towards what is alien.

I accept that my too crude dichotomizing of history and social studies created confusion for even sympathetic readers. I agree with Thornton about the obvious necessity of our present circumstances being the reference for our understanding of history. Indeed we experience only the present, and within the present some traces from which we infer the past. (I have elsewhere written about children's learning of history, most recently in "Accumulating history," History and Theory, Beiheft 22, 1983, and on the nature of historical knowledge in a number of places including "Progress in historiography," Clio, Vol. 8, No. 2, 1979, and "Thucydides, tragedian" in The Writing of History: Literary Form and Historical Understanding, eds. Robert H. Canary and Henry Kozicki, Madison: Wisconsin University Press, 1978.

II

There appear to be two main areas of disagreement; one connected with theories of children's learning and development, the second with the distinction between "socializing" and "educating." The second seems to Thornton the crux of my errors in two of the three arguments he identifies in my article, so I will deal with that first.

Distinctions have been made between "socializing" and "educating" in a number of ways. The way I have tried to make the distinction seems to me useful, and certainly more complex than Thornton's interpretation reflects. I accept that my brief characterization of each and the distinction I sketch
could have been done less confusingly. I did, however, refer readers to David Nyberg and Kieran Egan’s *The Erosion of Education: Socialization and the Schools*, New York: Teachers College Press, 1981, and, life being short, to “Educating and Socializing: A proper distinction?” in *Teachers College Record*, Fall 1983. Had Thornton bothered to look even at the article he would have found a section on Durkheim, Dewey and socialization which would at least have prevented him from interpreting my argument so simplistically—though, of course, I think an even moderately attentive reading of the article he criticizes might have had the same effect.

I find his criticisms on this point difficult to deal with because they miscast quite seriously what I wrote. I did not write that “social studies aims to ‘socialize.’” It aims both to socialize and educate, in my terms. My argument is that it is designed in such a way that achievement of its educational aims is rare. Nor did I write that “the aim of socialization is making people more alike,” rather I suggested that this is a function of successful socialization. Thornton writes further, “Egan believes that ‘socialization’ and ‘education’ are incompatible.” Is that conclusion compatible with the following paragraph from the article?

That schools socialize of necessity and as a part of their proper function is in no way denied in this conclusion. They socialize of necessity simply because they are social organizations working according to sets of rules, some consciously articulated, others half consciously accepted or resisted, still others subconsciously encoded in the subtle interactions determined by the structures and contexts of particular institutions. It is a part of the school’s proper function to socialize children; to both instruct them in the norms of their society and to show them why those particular norms are of value. A principle difficulty of schooling in a democracy is the inevitable tension between this initiation into social norms and conventions and the educational function of seeing these as one set of norms and values among many. It is a complex tension, and the mix of adequate socialization and adequate education is not easy to find. It is possible to err on the side of failing to socialize children adequately by, say, initiating children into a more or less dead set of cultural norms which are hostile to those which give life to one’s society—this is the worst face of elitism. Alternatively, one can err on the side of excessive socialization, which does not adequately make the tension between conformity, homogeneity, ethnocentrism, and ironic detachment a part of students’ consciousness. It is this latter error of which the social studies curriculum seems guilty; it is the former which Dewey reacted against.

Given this, I hope it is clear that what follows in Thornton’s critique passes by my argument. When he adds that I claim that coming to share attitudes and values and images of one’s nation is “at odds with ‘education,’”
he has clearly misunderstood me. He asks “Are they mutually exclusive processes?” and quotes Dewey in support of the contention that they are not. As I do not think they are or can be mutually exclusive processes this misses the point. How can he, in light of the above paragraph from my article, think I believe “the crucial issue ... is whether schools programs should aim to ‘socialize’ or to ‘educate?’” The quotation from Dewey is a bit ingenuous and curiously interpreted. Like Durkheim, but for somewhat different reasons, Dewey does not distinguish between socialization and education. He tends to use the two words as synonyms. His reasons for making no such distinction are what I would call ideological, and are reasons I examine in “Education and Socialization: a proper distinction?”

Thornton’s remaining comments on this subject seem increasingly far removed from any argument I have tried to make. The “full flower” of my failure is seen in my inability “to specify who holds the extreme view that social studies is ‘socialization’ divorced from ‘education.’” That is my argument! I tried to make it so forcefully because as far as I can see no social studies educators hold this view (thus making it extreme) and I obviously think they all ought to. I must confess to finding his final point, with the triumphant quote indicating that Dewey thought using mere historical anecdotes a poor idea, rather bewildering as a refutation of anything I argued.

The other point at which I would like to defend my argument concerns the basis of the social studies curriculum on theories of learning and development which seem to me seriously flawed. The focus here is on the expanding horizons model and the way the truism “moving from known to the unknown” is interpreted in it. I argued that Dewey’s observation that it is matters of practical doing that children come to know first and best is wrong. So it is not how we come to know, but rather what we know first and best that is at issue. Now a number of people have assured me that Dewey did not mean what I took him to mean when he wrote “The knowledge that comes first to persons, and that remains most deeply ingrained, is knowledge of how to do; how to walk, talk, read, write, skate, ride a bicycle, and so on indefinitely.” An interesting feature of the many interpretations I have received is their mutual incompatibility. None of them accept that he meant what he plainly wrote. While it is undeniably odd to say that young children know good and bad, fear and security, it is surely even odder to suggest that they do not. The oddity either way is what I acknowledged in the article, and it is a pity that Thornton spent all his energy on this acknowledged oddity and missed in the process my point.

To say that I confuse “feeling” various emotions with “knowing” them is a fair criticism, if one ignores the qualifications I made. But my concern was not that one “knows” fear/security in some explicit sense but that children must have such concepts available in some form in order to make sense of stories in which they are the main structural features. Also I do explicitly argue that children’s most characteristic ways of making sense of ex-
perience and the world have a strong affective component intermixed with cognitive categories. Is understanding Jack the Giant Killer a simple cognitive act? An appreciation of fear and danger is a necessary component of that understanding. If we analyse the stories children find most engaging and the content of children's fantasies we find them usually built on powerful binary opposites. My complaint was that the designers of the Social Studies curriculum focus rather on the content of children's experience in their interpretation of what children can understand, and I am arguing that we should focus instead on the underlying level of powerful abstract concepts that children develop and use very early. Doing this would lead us to a quite different curriculum and would break us free of the expanding horizons straight-jacket. (I will return to this below.) So I accept that using a phrase like "knowing love/hate" is potentially misleading, and it is my fault if it has mislead at least one reader away from the point I was actually trying to make.

My reply to Thornton, then, is that his first criticism focuses on my admitted sloppy use of "knowing" and in the process completely misses my main argument, and that his other two criticisms are based on a thorough and simplistic misreading of my educating/socializing distinction. Now it may be that I have misunderstood him in turn, and no doubt my arguments are vulnerable in all kinds of ways, but I think they are not quite as feeble as these criticisms assume.

III

The original article was an attack on what seem to me the main foundations of the Social Studies curriculum. It was a development of some ideas I had published earlier in TRSE. ("The student and the secondary Social Studies curriculum" Vol. VI, No. IV, (1978), and "John Dewey and the Social Studies curriculum" Vol. 8, No. 2, (1980).) It may be, as Thornton concludes, that I am poorly armed for the ambitious task of killing off a major component of the North American curriculum, but that is what I would like to do, and the weakness of my arms is properly to be judged relevant to the strength of the defences. As far as I can see the main defence of the Social Studies curriculum is that it is there and has been for three quarters of a century. It is hard to find intellectual defences for it today. That is why I have made the strategically awkward move of dealing with arguments from Dewey's Democracy and Education and Experience and Education. Only in Dewey's writings does one find anything like a coherent set of arguments that provide the foundations for the Social Studies curriculum as it exists. This is strategically awkward because it is not possible to show any clear causal relationship between Dewey's writings and the form of the curriculum. As I noted in the article, however, I have not attempted an historical study of causes but an analysis and criticism of the foundations of the Social Studies curriculum. It just so happens, as far as I
can see, that nowhere else besides in Dewey's writings can one find coherent arguments laid out that provide any kind of support for the general form and content of that curriculum.

Today the expanding horizons form of curriculum seems to be taken so much for granted, particularly by professional educators in the Social Studies field, that one sees exposition of it but nowhere does one see justification for it. The closest one finds is an occasional reference to working from the known to the unknown, as though that takes care of justifying the most profound and influential feature of the curriculum.

My first argument is that the expanding horizons model, far from being founded on an epistemological rock, is tenuously connected to some very fragile suppositions. My argument takes two parts. The first challenges the interpretation of the truism "from the known to the unknown" that seems most obviously expressed in Social Studies curricula. It seems evident that what is "the known" is the concrete content of children's typical experience—of selves, families, neighborhoods, communities, and so on "outwards." When the truism is invoked it is to recommend that things can be made most meaningful to children if we begin with what is part of their living experience and present environment and attach new material—"the unknown"—to that. Thus we can move outward from the known present practical experience in the direction of the unknown and abstract if need be, but preserving the meaningfulness of the unknown by its clear conceptual ties to what is already know.

My argument against this also takes two parts. First I point out that children have clear and ready intellectual access to all kinds of things that are not a part of the content of their practical living experience; things like the talking middle-class bears of fairy stories—creatures of a kind not evident in any child's actual neighborhood. The key to what young children can make sense of, I argue, is not in the content of their daily experience, but is rather in the fundamental conceptual categories in terms of which they make sense of things. The elaboration of my argument involves trying to articulate what some of these categories are—story form, binary opposites, mediation etc. If one analyses children's fantasy and the stories they find most engaging one can make an inventory of the basic abstract concepts which children clearly use to make sense of these. Prominent among these concepts are good/bad, fear/security, love/hate etc. (We can argue at length about how best to characterize these; my concern here is simply that children use concepts which we can call oppression/resentment/revolt in making sense of Robin Hood stories. If they did not have these concepts available then the stories would be literally meaningless.)

This first part of the argument seeks to respond to the assumption that children know first and best the content of their experience and, employing the "known to the unknown" principle, the content of their experience should become the starting point for exploration in the curriculum. Their
experience has also given them powerful conceptual categories which can be
used to make sense of the world and experience. If we take the fundamental
categories rather than the content of their experience as what is “known,”
then we can build a quite different curriculum.

The second part of my argument against the expanding horizons cur-
riculum is that people can have meaningful intellectual access to themselves,
their families, their neighborhoods and communities only late in their
development. Our parents are among the last people we come to know;
ourselves perhaps last of all. Because what is truly important about these
and our experience of them comes only later in our lives, their introduction
at the beginning necessarily trivializes them. Young children do not yet have
the variety of experience and understanding necessary to make the taken-
for-granted immediate world cognitively accessible in any meaningful way.
And so it tends to be the superficial surfaces that form the content of the
curriculum for young children.

These two parts of my argument against the expanding horizons cur-
riculum come together in the claim that this form of curriculum entails no-
tions of learning and development which are just about completely the
wrong way round. I argue that we would do better to adopt a metaphor of
contracting environments. We begin our explorations with fantasy, with lit-
tle sense of the boundaries of what is possible. But in fantasy there is much
more than idle conceptual activity. Our first meaningful explorations of
reality is at its limits, its extremes. Logically enough, we begin by seeking
out the borders of the real before turning to explore within. Our initial
engagements tend most readily to be with the kind of content we find in The
Guinness Book of World Records. (This is not an argument that this should
provide the content of the curriculum). Thereafter we begin to chart the real
world and experience in general schemes, and, paraphrasing T. S. Eliot
again, it is only at the end of all our exploring that we arrive where we
started and know the place for the first time.

The first argument, then, deals with what we can or cannot teach young
children meaningfully. Neither part of it deals with what we ought to teach
them, (except in as far as it does not make sense to try to teach what
children cannot meaningfully learn.) My second argument was to support
teaching young children history. I argue for history because it offers the
possibility of engaging aspects of reality in powerful, vivid, and dramatic
terms; terms that are meaningful to young children because they are, in
part, analogous to the psychological journey, with its struggles, that they
have already taken. Can you remember how far away infancy seemed when
you were five; how far you had come and how much you had experienced?
Human history can both make our personal experience meaningful in a
wider sense and can in turn be made meaningful in terms of the profound
conceptual categories which our experience has already provided by the age
of five. (How to design a history curriculum that is accessible to children at
different ages is clearly impossible to outline here. For an initial stab at such a curriculum, and appropriate ways of teaching it, see *Educational Development.*

The development of historical understanding, I argue, requires certain kinds of history teaching at early ages. If this is not done, as it is not in most places at present, then the prerequisites for later understanding are not prepared. Thus attempts to teach history in secondary schools are doomed to general failure because the prerequisites, which are the means of access to more sophisticated understanding, have not been taught. So history is desirable during primary school years both for the educational values it offers and also because without the more basic understanding of history accessible during those years attempts to teach history later will be generally futile. (I think present practice supports the observed results, even if I have mistaken the cause.)

My attempt to etch the distinction between what I see as the potential educational value of history and the actual practice of Social Studies led me to try to expose the profound nature of the difference in terms of "education" and "socialization." This seems to have been a poor move, in that it seems to have attracted many readers' attention away from the point I was using it to illustrate.

**IV**

The critical discussions of Dewey that have gotten me into so much trouble were begun, as I noted above, because I could find no contemporary arguments in support of the bases and structures of the Social Studies curriculum. A common sign of the vitality of an area of study is its critical reflection on its own bases and the development of arguments from the results of that reflection. There is much evident energy and vitality in the professional literature on Social Studies, but there are also some curious gaps and what seem like curious disproportions in the allotment of that energy and vitality.

One can find expositions of the "expanding horizons" model in many texts, and one can even find criticism of it. But the criticism is hardly ever derived from questioning its bases—there seems very rarely any awareness of its logical and psychological foundations. The suggestions for revision that we do see tend to result from revised estimates of what topics children become familiar with at what ages (usually as a result of T.V. watching), and thus what the set of "knowns" might be from which expansion towards "unknowns" can begin.

Nor does one see questioning of the structure of the curriculum from the perspective of children's and students' cognitive development. Let me hastily add that I mean the development of the conceptual capacities that making sense of typical Social Studies content requires. There have, of course, been a number of attempts to "read across" from psychological or psycho-
social theories of development to Social Studies content. Most notably, Piaget's theory of logico-mathematical structures has formed the implausible source for most of this kind of research. As Piaget's theory comes apart under conceptual and empirical attack, we may see the value of turning to theories remote from our actual concerns for enlightenment. (For a discussion of the waning of Piaget's theory see Jerome Bruner's "State of the child" in the Oct. 27th 1983 issue of The New York Review.

Indeed one cannot accuse Social Studies professionals of being insensitive to research (though they have been accused rather devastatingly in these pages of frequently sloppy research, by Shaver and Norton in Vol. 8, No. 2). But one can accuse them of attending to research which is based almost entirely on psychological theories of only the most remote relevance to the educational challenges that face us. It often seems as though "research" is a kind of avoidance activity; one engages in it or seeks insecure inferences from it to avoid facing up to the immediate practical problems that stare us daily in the face—like what to teach, when, to produce what kind of person. (The extreme argument that no psychological theory has or can have implications for education is made at appalling length in Education and Psychology: Plato, Piaget and Scientific Psychology, New York: Teachers College Press, 1983.)

It might be thought that a great deal of attention is paid to the aims of the Social Studies curriculum and what things should be taught to achieve those aims. An oddity of Social Studies is the energy that goes into formulating statements of aims—as though the best verbal formula will carry us somewhere closer to knowing what the subject is about. It is a symptom of the unworkability and confusion of Social Studies, I argued in the article criticized, that its statements of aims have two odd features: first, that they run to lunatic hyperbole and second, that they are largely disconnected from the massive, and fruitless, research and literature on methods of teaching. Criticizing the stated aims of Social Studies is, I wrote in the previous article, a bit like a blood sport. How can anyone take seriously the aim of a curriculum area with a finite number of class hours to produce ideal citizens, self-aware moral agents, who know wads of history, geography, and bits of all the social sciences? How can we continue these empty pieties in the face of the typical products of the Social Studies curriculum? We need to become a little harder-headed surely in more closely relating the actual practices of Social Studies with statements of aims. There is little sense in claiming to aim at producing a moral, self-actualized, etc. person if what in fact is done involves the usual number of class hours in the usual array of school environments with the usual set of teachers performing whatever recommended tasks one cares to name. Of course we can set about trying to improve such things, but it diverts us from reality and daily practice to indulge in hyperbolic aims writing. The other side of that problem is that the specification of particular units, lessons, and content is
deprived of the kind of guidance that sensible statements of aims can provide.

Now this is not to be read as patronizing advice about what to do; rather it is the result of an argument that Social Studies is such an intellectual confusion that even sensible people are forced into these kinds of empty hyperbolic statements when they try to formulate overarching aims for Social Studies. The fact that one cannot write sensible overarching aims—especially when the irreducible residue of those aims is the production of good citizens—produces practical difficulties in deciding, say, whether to increase the amount of immediately socially relevant activities in the curriculum as against ancient history, and is a symptom of more fundamental confusions in the area which have tended to be glossed over with such verbal formulas, or to lead to irresolvable battles between "relevance" and "disciplines," and so on.

While I'm at it, I might mention two other striking features of most Social Studies literature. First is what I can only call an ideological innocence. It is as though the form and content of Social Studies was without ideological presuppositions. Only very rarely does one see this acknowledged, and it is even rarer to see these explicitly discussed. It even takes outsiders to point out the systematic distortions to our textbooks made on ideological ground. Since Francis Fitzgerald's *America Revised* (Boston: Little Brown, 1979), there has been more attention to distortions in textbooks, but usually within the field this becomes a relatively innocent correction of errors, rather than an exposure or discussion of systematic distortion and, more importantly for professionals in the area, explicit discussion of the ideological bases of those distortions. This is not a topic that "belongs" to the ideological right or left: that is when it becomes dangerous and indeed a tool of left/right ideological battles. The defence against this, too, must be in the mainstream Social Studies educator becoming more sensitive to questions of ideology in the curriculum.

Second is what is perhaps a less easily understood analytic innocence. One does not have to accept the general arguments of people like Richard Peters and Paul Hirst to acknowledge that their brand of Philosophy of Education has contributed an analytic keenness to educational discourse that it had previously lacked, to its cost. Despite the widespread adoption of at least the analytic sensitivities of this movement, much Social Studies literature seems entirely untouched by it. We may still open recent texts and articles and see routinely accepted systematically ambiguous and question begging claims such as that the Social Studies curriculum should derive principally from the needs and interests of students and society. Perhaps Hirst's *Knowledge and the Curriculum* should be required reading in Social Studies.

Perhaps worst, however, is the curriculum itself. Those forlorn lists of topics stuck together on the basis of any casual argument that comes along.
There are no powerful educational principles evident in the typical list of topics that make up the curriculum. All we have is a tattered notion of "expanding horizons," which anyway runs out of steam by grade 6, and then rather desperate appeals to principles such as students' and societies' needs, or to irrelevant psychological theories such as Piaget's or Erikson's.

But the surrounding rhetoric is full of the highest sentiments and indeed often acute socio-historical analysis. Dewey of course is the model here, but one could list a number of TRSE contributors whose ability to discuss the goals of the Social Studies in a broad social and historical perspective is impressive. It is generally argued that Social Studies is a response to the enormous social and technological changes occurring during the twentieth century. The citizenry would, and does, face enormously complex new problems. Social Studies is the area into which preparation to deal with this new and changing world is to be focused. Thus it gathered the focus on the skills of good citizenship and those aspects of the academic disciplines that seemed able to contribute to the ability to be at home in the new world. My argument has been that the agglomeration of topics that is Social Studies cannot perform a task which, paradoxically, is largely performed by being brought up in a society. In the process of reformulating the "social" disciplines to contribute to the aim of good citizenship, it has largely stripped them of their educational value. And the actual curricula that underlie the rhetoric of Social Studies are informed by highly dubious principles, and present an incoherent smattering of bits and pieces of knowledge.

Of course I may, as Thornton's title suggests, entirely misunderstand Social Studies. But if my accusations of failure are unfounded, to what do the defenders of the curriculum point as evidence of its success?
Book Review Section

Book Review Editor:
William Stanley
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Baton Rouge, Louisiana 70803

We are seeking critical reviews of scholarly works related to the concerns of social educators. This includes books on education, the social sciences, history, philosophy, research and any other works which might make a contribution to the field.

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Book Review

Sitton, Thad, Mehaffy, George L., and Davis, Jr., O. L. ORAL HISTORY: A GUIDE FOR TEACHERS (AND OTHERS); Austin, Texas; University of Texas Press, 1983. 167 pages; $18.95 (hardcover), $8.95 (paperback)

William R. Fernekes Hunterdon Central High School, Flemington NJ 08822

Since 1945, a meteoric expansion of oral history has occurred in both academia and pre-collegiate education. Scholars and amateurs embrace oral history as a means for challenging the consensus school of American historiography popularized by Schlesinger, Baily, Morison and Commager; as a technique well-suited to preserving the heritage of the "underside" of history (the inarticulate, the poor, women, cultural and ethnic minorities, labor unions, and many others); as a process for expanding legitimate historical sources beyond the printed or written word; and as a learning strategy assisting active participation in the process of inquiry. The explosion of articles, books, pamphlets, films, dramatic presentations, curriculum materials, and tapes themselves either about oral history as a process of investigation, or somehow drawing upon the products of oral history (tapes and transcripts) shows no signs of abating. In light of such developments, manuals about "how-to-do" oral history in schools continue to proliferate.

Organization

The clarion quality of this book is its accessibility. Avoiding jargon, the authors present arguments advocating oral history in schools and suggestions for its implementation lucidly. Technical terms (for example, transcription) are clearly described, often under subheadings to engage the reader's attention. A glossary would be helpful to catalogue important terminology, but its absence is not a capital offense.

With one exception, the five chapters and eight appendices are well-designed and logically structured. Instead of its current location, the chapter "A Model for Fieldwork in Oral History" is more effectively placed immediately after the Introduction. Discussion and explanation of oral history procedures would provide more effective insight into the nature of the "project options" in chapter two. Knowing how to do oral history is applied more cogently in the project options chapter after the authors' model is presented, and the model can then be effectively reintroduced within the discussion of varieties of oral history projects. Chapter five, entitled "The Products of Oral History," then appears to be even more coherent as a conclusion to the narrative. Projects already extant can be related to the
authors' oral history fieldwork model, and the authors' ideas concerning products will benefit from close comparison and textual juxtaposition with existing project options.

The eight appendices and substantial bibliography offer numerous avenues for independent investigation. In future editions, an index would help the reader locate the many individuals and places discussed throughout the text.

The book contains no photos, diagrams, or sample transcripts. While reducing the visual appeal of the book, the lack of photos and diagrams paradoxically places a great reliance on the written word to convey the authors' message. Photos of pupils engaged in oral history processes, diagrams or charts analyzing the forms of interview interaction, and sample transcripts displaying the stages of transforming taped memoirs into written documents would effectively highlight the authors' major points. Ideally, using a multimedia presentation can enhance the authors' argument that studying social phenomena with a variety of sources is a valid inquiry strategy.

**Content**

The substance of the book's message advocates oral history as a form of community-based action learning with the potential to unify both content and process learning goals. This is one accepted approach to oral history as a learning strategy. The authors rely heavily on the Foxfire learning experiences currently present in U.S. schools to buttress their arguments. This reliance surfaces in suggestions for interviewing techniques, ideas regarding potential projects, and is particularly obvious in the appendix on oral history publishing entitled "Getting Started With a Foxfire-Concept Magazine." Unfortunately, this indebtedness to Foxfire masks a narrow perspective on oral history as an inquiry strategy which permeates this book.

Only a limited view of the potential of oral history is presented in the introductory chapter. Little mention is made of how oral history actually reconstructs personal historical identity, or how oral history may present a radical alternative to mainstream historical interpretations. Foxfire itself represents the most well-known and well-publicized oral history learning strategy, yet the predominance of the authors' reference to Foxfire suggests strongly that it is the preferred, and by omission, most legitimate approach for educators.

The authors do not offer a comprehensive discussion of the differing goals, values, and components of oral history in the educational literature as presented by both scholars and practitioners. Nor do the authors indicate how the existing professional literature presents oral history's mesh with social studies or other curricular aims and practices. A recent review of the professional literature on oral history in education indicates that four
justifications for oral history in the schools exist: (1) oral history as a means to expand the definition of legitimate historical knowledge and models for inquiry, (2) oral history as a means for enlarging the store of primary source materials available for instruction and research, (3) oral history as a form of engendering affective learning, and (4) oral history as a means to improve acquisition of cognitive skills and processes. A similar attempt at analysis is necessary in this book to provide a conceptual framework for reflection on the use and merits of oral history in the classroom.

The authors assert that oral history usage in schools achieves four goals.
1. Classroom oral history serves to bridge the gap between curriculum and community.
2. Classroom oral history projects can be more than just local history, having application outside the discipline of history itself.
3. Classroom oral history projects develop both academic and interpersonal life skills of students.
4. Classroom oral history is personally motivating to students by promoting student self-identification with their own heritage and feelings of self-worth.

Although logically, and in many ways eloquently stated, the authors present a paucity of documentation of the achievement of these goals. They assert the validity of each goal without discussing the criticisms of oral history by professional historians and other critics. If oral history does not produce mountains of trivial data and does not represent poorly-done research better left alone, the authors should explain the merits of school oral history by offering rebuttals to these criticisms. Often, I found myself agreeing with these stated goals, but lamenting the authors’ one-sided advocacy of them. If school oral history actually does “bridge the gap” between textbook history and the “real” history available in the local community, some demonstration of how students grapple with comparisons between these two differing sources of historical interpretation is required. Some sense of how students come to acquire historical understanding through oral history and how this understanding complements, supplements, or conflicts with textbook historical knowledge is needed to persuade the reader.

Additionally, there is an inadequate discussion of the processes inherent in the interviewer-informant dialogue. Are we truly experiencing the resurrection of the actual record of the past through oral history investigation? Theoreticians such as Michael Frisch argue no. One finds no sense of the debate about this important issue in the book. Frisch presents the argument that memory is not capable of reclaiming the past as it truly transpired. Rather, recalling one’s past is heavily mediated by intervening life experiences and cultural influences which have occurred since the period being questioned. Instead of reclaiming the past pristinely, oral history offers only a retrospective interpretation of the past colored by the society’s cultural influences and the idiosyncratic nature of the informant’s memory and the interviewer’s questioning priorities. In Frisch’s eyes, no oral history
is a self-evident record of the past; instead, oral history is a product of complex, often vaguely definable qualities based on the mutual reconstruction of prior experiences by the interviewer and the informant. The impression acquired in this book is that oral history investigation produces a mirror-like historical interpretation of previous historical change. Such an impression distorts a major theoretical debate and reduces the critical value of the authors' argument about the products of oral history.

The discussion of questioning tactics in oral history is uneven and at times unclear. Different types of questions are categorized (substantive, open, closed, leading, and probe questions) and a series of additional tactics to maintain momentum in interviews and to gather "thick" data from informants are offered. Problems arise as the authors classify "silence" and "encouragement" as forms of probing questions. By making this claim, the authors do not clearly differentiate how silence and encouragement are separate from facial gestures, statements of encouragement ("That's interesting," "Go on,"), and nods of the head or related forms of silence (question wait-time, and body language, for example). Such a lack of clarity is lamentable, as it is juxtaposed with reasonable and prudent suggestions for interviewing stemming from the authors' personal experiences in school oral history.

Educators seeking guidance regarding oral history as a learning strategy may turn to *Oral History for Teachers (and Others)* with certain reservations. It offers an accessible writing style, useful suggestions for establishing projects, insightful remarks on publishing and technical concerns in recording, and helpful appendices (citations formats for interview data and a short review course on interviewing are exemplary). However, readers seeking a comprehensive presentation of the blend between theoretical concerns and practical matters, including how one must judge the validity of oral versus written historical sources, must seek additional assistance. The noticeable lack of critical commentary about oral history as a process and the lack of critical discussions of theoretical concerns in the book's bibliography mandate further exploration in oral history manuals and guidebooks. Paul Thompson's *The Voice of the Past: Oral History*, the articles of Michael Frisch, and William Moss' *Oral History Program Manual* are helpful additional works which comprehensively deal with the issues neglected by Sitton, Mehaffy, and Davis. If school oral history is to become as valid a learning strategy as this book's authors claim, more concentration on research demonstrating the values of oral history and further critical discussion of its merits and debits in education are clearly necessary.

References

Abstracts

Cognitive Style, Teacher Methods and Concept Attainment in Social Studies

One hundred middle school students participated in a three phase experiment designed to investigate the effects of concept attainment lessons, three teaching methods, and student cognitive style as indexed by the *Children's Embedded Figures Test*. Results during and immediately after instruction showed significant superiority for students receiving the concept lessons, significant and consistent differences among the three teaching methods, and some superiority for Field Independent students over Field Dependent students. An eight-week follow-up test showed that only the differences among the three teaching methods remained significant. The results showed no empirical support for the existence of aptitude-treatment interactions.

Interracial Contact Experience and Attrition
Among Black Undergraduates at a Predominantly White University

This study is part of a larger study which identified explanations of student attrition at Indiana University in Bloomington. Several new areas of inquiry formed the theoretical basis for the research, including social contact theory, stages of ethnic identity and transitional trauma. Black undergraduates became the major focus of study because of their disproportionately high level of attrition when compared with Asian, Latino and White undergraduates. Approximately one third of the Black undergraduate population as well as a sample of Asian, Latino and White undergraduates, completed a questionnaire and nearly one hundred Black students were personally interviewed. A Conceptual Model of Black Student Attrition which included interracial contact variables was estimated using ordinary least squares regression in a path analytic framework. The research reported here emphasizes the utility of social contact theory, particularly interracial contact experiences, as factors which affect college student attrition and persistence.

Cognitive Development and Historical Reasoning in Social Studies Curriculum

The purpose of this paper is to bring attention to the need for greater local school leadership in the development of social studies curricula. We propose a simple model of curriculum design based upon the process of age/grade placement of social studies concepts. The primary concern for a curriculum based upon concept cluster is proper age/grade placement of social studies concepts in relation to the developmental characteristics of children and adolescents. We seek to explain how cognitive development and historical reasoning have been seriously overlooked in curriculum development in the social studies. Finally, we suggest instructional and curricular ideas that might improve the way in which we develop social studies curricula and how we might design instruction to meet the cognitive developmental needs of our clients.
**Journal Information**

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