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ABSTRACT

Thirteen groups of 11-19 year old boys, stratified by age, race, socio-economic class, and attendance of racially segregated or integrated schools served as subjects (N=185). Measures of the relative importance of the past, present, and future were derived from a story completion and story productions. Attitudes toward the three time divisions were measured by seven semantic differential scales, by the feeling tone of past and future events, and by time machine travel preferences. Measures of past and future extension were obtained by computing the time span of personal events. Only two developmental effects appeared. The personal past extended with increasing age, and a tendency to use all three time divisions on the importance measures appeared at or above the age of 14. All groups, except a black college age group, were optimistic about the present and the future. There were no differences between the relative importance and extension measures, but blacks showed a tendency to evaluate the past as worse than whites. Comparisons of middle class whites with lower class blacks showed a greater use of past and future on the past by whites. Attendance of segregated or integrated schools did not appear to influence the time perspective variables. (Author)

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**August 1973**

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**THE DEVELOPMENT OF TIME PERSPECTIVES AS FUNCTIONS OF RACE,  
INTEGRATED SCHOOL ATTENDANCE, AND SOCIO-ECONOMIC CLASS  
BETWEEN THE AGES OF 11 AND 17**

**U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE**

**Office of Education**

**National Institute of Education**

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Only two developmental effects appeared. The personal past extended with increasing age, and a tendency to use all three time divisions on the importance measures appeared at or above the age of 14. All groups, except a black college age group, were optimistic about the present and the future. There were no differences between the relative importance and extension measures, but blacks showed a tendency to evaluate the past as worse than whites. Comparisons of middle class whites with lower class blacks showed a greater use of past and future on the importance measure, a larger personal extension of the past, and a greater liking of the past by whites. Attendance of segregated or integrated schools did not appear to influence the time perspective variables.

Final Report

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## INTRODUCTION

### The Concept of Time Perspectives

The concept of time perspectives was introduced by Frank (1939), in a speculative article, which emphasized that during socialization cultural time perspectives are imposed on the individual and in turn individual internalized time perspectives control behavior in later life. For Frank, time perspectives appear to involve individual, phenomenological, and constantly shifting relatedness of past events from a focal point in the present to future events. He feels that the greatest contribution of the scientific mode of thought is an emancipation from a fixed past through recognition of faulty knowledge of causal chains and a more predictable future resulting in a fuller, more meaningful present. Frank has also discussed in detail the possibility of the existence of a number of disparate time perspectives within the same individual, each relating to a different area of living.

Clyde Kluckhohn (1954) has discussed the available cross-cultural concepts of time and has suggested that it is unreasonable to assume that the time concepts and consequently, the time perspectives of different cultures, are the same. Florence Kluckhohn (1956) is using the question: "What is the significant time dimension?" as one of the major cultural value orientations for differentiating between different cultural groups. She refers to Frank as the only person who has treated all three temporal positions: the past, the present, and the future.

Time perspective was defined by Lewin (1951) as "the totality of the individual's views of his psychological future and his psychological past existing at a given time." In spite of the fact that it is an important concept in a psychological system which treats contemporaneous events only, Lewin has not advanced very far in differentiating the total field of time perspective. It is interesting to note that Lewin has dropped the plural "time perspectives" used in Frank's original discussion. However, the following statement by Lewin (1951) can be interpreted as indicating multidimensionality of time perspective:

"The behavior of the individual does not depend entirely on his present situation. His mood is deeply affected by his hopes and wishes and by his views of his own past. The morale and happiness of an individual seems to depend more on what he expects of the future than on the pleasantness or unpleasantness of the present situation."

Lewin has also discussed one aspect of future time perspective along a reality-irreality continuum, which distinguishes between future expectations linked to the present situation and wishful thinking.

One current systematic position in psychiatry, existential analysis, places relatedness to time and time perspectives into a central position. May (1958) writes, for example:

"This capacity to transcend the immediate boundaries of time, to see one's experience self-consciously in the light of the distant past and the future, to act and react in these dimensions, to learn from the past of a thousand years ago, and to mold the longtime future, is the unique characteristic of human existence."

It is interesting to note that Asch (1952) in an analysis of human motivation in the context of transformation of man in society comes to a similar conclusion:

"Because they (man) can look forward and backward and perceive causal relations, because they can anticipate the consequences of their actions in the future and view their relation to the past, their immediate needs exist in a field of other needs, past and future. Because they consciously relate the past with the future, they are capable of representing their goals to themselves, to aspire to fulfill them, to test them in imagination, and to plan their steps with a purpose."

The link between existential analysis and Asch's analysis of personality is that both approaches to the study of human behavior highlight the importance of conscious phenomenological determinants of behavior. In his phenomenological discussion of temporality Ellenberger (1958) characterizes psychological time as flowing with a certain speed, which is automatically structured in the irreversible sequence of past, present, and future. According to Ellenberger (1958), who follows Minkowski's earlier analysis, important personality distinctions can be made between the "prospective" and "retrospective" person, keeping in mind that the predominant concern with the past or the future can be "constructive," "catastrophic," "confused," "delusional," etc.

In an analysis of a "case of schizophrenic depression," which actually appears to be closer to a case of paranoid depression, Minkowski (1958) presented the interpretation that the cause of psychopathological symptoms is due to a loss of continuity in personal time characterized by day-to-day isolated experience, which results in the isolation of delusional content from ordinary experience. According to Minkowski, the delusions in the first place, resulted from an altered temporal experience and are attempts to account for the altered time relationships in living. For existential analysts, time perspective and temporal experiences are the bases of human experience. The more generally accepted view that time perspective distortions are symptoms of mental illness is replaced by the view that time perspective distortions are at the core of mental illness. It should be pointed out that time perspectives and temporal orientation is not necessarily related to the simple "time sense" studied by experimental psychologists. Schilder (1953) illustrates this point by pointing out that with people who exhibit the Korsakow syndrome, where temporal disorientation is very severe, there is no disturbance in the perception of immediate duration.

### The Development of Time Perspectives

The developmental literature concentrates much more on the development of the time concept in young children than on tracing the development of time perspectives. Fraisse (1963) provides the following summary of the development of time concepts:

	Age
Recognize a special day of the week, such as Sunday	4 years
Tell whether it is morning or afternoon	5 "
Use the words "yesterday" and "tomorrow" with their true meaning	5 "
Indicate the day of the week	6 "
Indicate the month	7 "



Indicate the season	7-8 years
Indicate the year	8 "
Indicate the day of the month	8-9 "
Estimate the duration	
a) of a conversation	12 "
b) "since the holidays"	12 "
c) "until the holidays"	12 "

A number of studies illustrate the development of time concepts and the concurrent extension of temporal horizons in children. Lostia (1967) indicates that until the age of eight, spatial and temporal relations are not distinguished from each other by the young child. Up to the age of ten, the idea of temporal homogeneity is not used consistently.

Klineberg (1968) has demonstrated that with male children between 10.5 and 12.5 in age, the preference for a delayed larger reward over an immediate smaller one is related to the degree of reality of personal future events and to the degree of everyday preoccupation with the future rather than with present events. The data indicates that individual differences of time perspectives affect behavior at a fairly early age.

Rogers (1967), in a study with British children, indicates that the concept of time continues developing in early adolescence. Significant differences were found on improved historical concepts between bright children of age 12.6 and 13.6, and on scores of "integral time concept" between the ages of 13.6 and 14.6. The results demonstrate that mastery of historical time concepts does not necessarily involve mastery over integral concepts of time.

A study by Pistor (1940) indicates that for grade six children the study of history is not especially beneficial for increasing the development of time concepts, as both children exposed to history and control children, demonstrated equal gains in understanding time concepts over the academic year. Friedman (1944) has demonstrated that knowledge of clock time starts at around age seven and the adult time concepts are learned gradually and keep on developing until the ages of 16-17.

Eson (1951) has found that both children and adults have a larger future than past orientation. He has found that there is no great proportional difference in the emphasis of the future as related to the past for people between the ages of 15 and 65.

Lessing (1972) has found with girls in the age range of 9-15 that the length of cognitive future time perspective decreases from childhood to adolescence. Lessing explains the findings by referring to the greater degree of realism of the older subjects.

### Behavioral Correlates of Time Perspectives

A number of investigations have shown that one or more quantifiable aspects of the cognitive temporal content of individuals successfully discriminates between groups of people, characterized by differential behavior. To illustrate the diversity of the significant relationships between arbitrarily defined time perspective variables

and behavior, the following listing of independent variables is presented:

Social class (findings in doubt)	LeShan (1952)
Institutionalization	Fink (1953)
Juvenile delinquency	Barndt and Johnson (1955)
Juvenile delinquency	Davids, Kidder, and Reich (1962)
Schizophrenia	Wallace (1956)
Academic achievement	Teahan (1958)
Open and closed mind	Bonier (1960)
Impulsivity	Laffy (1963)
Reading achievement	Kahn (1965)
Social class (negative results)	Judson and Tuttle (1966)
Death concern	Dickstein and Blatt (1966)
Juvenile delinquency	Stein, Sarbin, and Kulith (1968)
Suicide	Greaves (1971)

Wallace and Rabin (1960) have summarized the present status of time perspectives as a set of personality variables:

"...in view of the relatively sizeable number of significant findings reported, it does seem appropriate to conclude that both the direct and indirect approaches to the problem of time perspective have been quite fruitful. Further systematic research developed from a consistent theoretical and methodological point of view appears necessary to provide a basis for obtaining additional definitive information about the nature of time perspective and its relation to phenomena in other areas."

### Measurement of Time Perspectives

Measures of individual differences in extension quantify the degree of expansion into the past, and/or into the future of the individual's temporal horizon. The methods employed to date include completion of unfinished stories, elicitation of stories to TAT cards, asking about what subjects have thought about during the past week or about things which might happen in the future, and in all cases deriving estimates of the length of time covered with or without the subject's help. Direct questions about the extension of various time categories, such as near future, are also useful means of measuring the length of the temporal horizon.

Teahan (1958) has demonstrated that there is a low but significant (.33) correlation between measures of future extension derived from story completion and TAT techniques. He has also shown that a measure of the relative importance of the future derived from the proportion of thoughts concerning the future in the total thoughts produced is unrelated to the two measures of future extension he employed. Using different procedures Rokeach and Bonier (1960) have also confirmed the independence of the relative importance and extension measures.

A relatively larger number of studies have focused on comparing groups differing in behavior on measures of relative importance of past, present, and future. Proportion of the different tense verbs in TAT stories; proportion of thoughts dealing with past, present, and

future events; and proportion of past, present, and future events in story completion have been the usual methods of measurement of the relative time division importance variable.

Fink (1953) has demonstrated that aged institutionalized individuals are more past oriented than their contemporaries living in private homes. He reported significant correlations between two measures of relative importance obtained by the reported thoughts and TAT procedures for past and future, but no correlation for the present. Rokeach and Bonier (1960) reported that using TAT stories, dogmatic persons are more future oriented on the importance measure than non-dogmatic persons are. Barndt and Johnson (1955) employing a story completion technique have found that juvenile delinquents are more present oriented than non-delinquents are.

Attitudes and feeling tone toward the personal past, present, and future have been only very superficially investigated. Teahan (1958) found that extension measures of future time perspective and optimism are positively correlated. Rokeach and Bonier (1960) found indications that an increase in importance of the future is a function of increased threat and anxiety about the future. Attitudes toward past and present have not been empirically investigated.

### Research Questions

The present study was designed as an exploratory project to measure a large number of various time perspective variables in boys between the ages of 11 and 19 as functions of age, race, socio-economic class, and attendance of racially segregated and integrated schools.

The major questions are:

1. What developmental sequences are observable in the relative importance of the various time divisions, in the extension of personal and less personal past and future, and in the feeling tone and other attitudes toward the past, present, and future?
2. How do the various measures of time perspectives differ in black and white boys?
3. What is the relationship between socio-economic class and temporal perspectives?
4. What is the relationship between time perspectives and attendance of racially segregated and integrated schools for black boys between the ages of 11 and 15?

## PROCEDURE

### Instruments and Their Administration

Samples of the instruments used and instructions to the subjects are presented in Appendix A. Each volunteer subject was individually interviewed, either during regular school hours or during a spare period, in an available room in his school building. Race of the interviewer was matched with the race of the subject. All white subjects were interviewed by a white female graduate research assistant, and a black female research assistant interviewed all black subjects. The only other differential treatment of subjects by race was using a stimulus person of the same race as the subject on the Thematic Apperception Test Card one. The Thompson modification of the TAT was used for black subjects. It pictures a black boy with a violin instead of a white boy with a violin on the card.

The experimenters first presented a story production task to the picture of a boy with a violin (card one of the TAT). The usual instructions were modified to remove any reference to time. Subjects were asked to make up a story about the picture as outlined in Appendix A. The experimenter has recorded verbatim the story production. After the completion of the story the experimenter found out about the time span of the story, and about the feeling tone of the story.

A similar procedure was followed on two story completions. Story number one started with the stem: At the dinner table John and his sister... and Story number two started with the incomplete stem: In the locker room after gym class David... Because of shorter class periods in some schools, story completion one was omitted for a number of subjects.

One purpose of the production of stories was to measure the relative importance of past, present, and future. First, all stories were scored in terms of the number of past, present, and future tense verbs used by the subjects. The interscorer reliability, after training, was found to be above .90. From the number of past, present, and future tense verbs produced by each subject the proportion of past, present, and future tense verbs used were calculated in order to equate for variations in the total number of verbs used.

In addition, total extension of the time horizon was measured by obtaining from each subject his judgment of the time span of each story. The extension figure obtained was converted to a six point scale, using the following classification:

<u>Score</u>	<u>Reported duration</u>
1	Under one hour
2	One hour to under five hours
3	Five hours to under twelve hours
4	Twelve hours to under one week
5	One week to under three months
6	Three months or more

The story given to TAT Card one and the two story completions were also evaluated by the subject on the affective tone, whether

positive, negative, or neutral in character.

Next, the subject was asked by the experimenter to fill out a booklet, which contained semantic differential scales to judge the past, present, and future; and an inventory of personal events. In addition, the subject was asked to provide his home address in order to estimate his socio-economic standing.

Seven semantic differential scales were used to measure the attitude of each subject to past, present, and future. The scales consisted of the polar pairs of good-bad, soft-hard, fast-slow, ugly-beautiful, strong-weak, kind-cruel, and passive-active separated by a seven point scale. For presentation of the raw data and other scoring, some of the scales were reversed in order to obtain comparable scoring within similar scales. The reported direction of the scales on evaluation are: good-bad, beautiful-ugly, kind-cruel; on potency: hard-soft and strong-weak; and on activity: slow-fast and passive-active.

The events test asked the subjects to list events in their life from the far past, near past, present, near future, and far future on a separate sheet of paper for each time dimension. The experimenter, after individual completion of the test, asked how old the subject was or will be when each event occurred, and to judge whether the event was good or bad. The events approach is a personal test of temporal perspectives, since the subject refers to definite events in his own life. The proportion of past, present, and future events listed was used as one measure of relative importance of the particular time dimension. However, since subjects tended to give an equal number of events for each time dimension listed, this was not found to be a useful measure. Extension of personal past and personal future, a more useful measure, was obtained by computing how far from the present are the most extreme event projections into the future and the past. In the few cases where the near past showed a listing of an event in the more distant past than the remote past, the near past event was used as the measure of past extension.

A new instrument, the time machine test, was administered by the experimenter to find out about the subjects' preference and willingness for time travel into the past, or the future, or for staying in the present. Subjects were also asked how far into the past and future they were willing to travel, if given the opportunity. The time machine extension data provides data on the development of historical time perspectives, since a number of subjects may indicate a desire to travel into the historical past.

### Subject and School Characteristics

Male volunteers from public schools in two regions of a large public school system and from a private university served as subjects. The cooperating principals, or other school officials, selected the subjects on a more or less random basis. The principals were asked to exclude obviously disturbed children, and to avoid selection of subjects on the basis of their grades or ability. In some of the high schools, subjects were selected on the basis of their availability during spare periods. Table 1 provides information on the age, race, price of homes

TABLE 1

## DEMOGRAPHIC DATA OF THE SCHOOL GROUPS.

	BLACKS	WHITES	WHITES
	<u>1-S*</u>		
$\bar{X}$ AGE	11YRS 2MOS		
MDN GRADE	5		
NO. OF <u>Ss</u>	15		
$\bar{X}$ HOME VALUE	\$11,500		
	<u>2-I</u>		<u>7-S</u>
$\bar{X}$ AGE	11YRS 10MOS		11YRS 6MOS
MDN GRADE	6		5
NO OF <u>Ss</u>	14		15
$\bar{X}$ HOME VALUE	\$11,200		\$17,943
	<u>3-S</u>		<u>8-S</u>
$\bar{X}$ AGE	13YRS 4MOS		13YRS 8MOS
MDN GRADE	7		8
NO OF <u>Ss</u>	14		15
$\bar{X}$ HOME VALUE	\$12,800		\$16,833
	<u>4-I</u>	<u>4-I</u>	<u>9-S</u>
$\bar{X}$ AGE	14YRS 8MOS	15YRS 1MO	15YRS 6MOS
MDN GRADE	9	9	10
NO OF <u>Ss</u>	14	15	14
$\bar{X}$ HOME VALUE	\$11,900	\$10,636	\$16,500
	<u>5-I</u>	<u>5-I</u>	<u>9-S</u>
$\bar{X}$ AGE	17YRS 6MOS	18YRS 3MOS	17YRS 7MOS
MDN GRADE	12	12	12
NO OF <u>Ss</u>	14	15	14
$\bar{X}$ HOME VALUE	\$12,800	\$11,850	\$16,731
	<u>6-I</u>		<u>6-I</u>
$\bar{X}$ AGE	19YRS 4MOS		19YRS 3MOS
MDN GRADE	1 YR COLLGE		1 YR COLLGE
NO OF <u>Ss</u>	12		14
$\bar{X}$ HOME VALUE	NA		NA

\* S=SEGREGATED; I=INTEGRATED.

on the block of residence, and the racial characteristics for the thirteen groups of boys studied. Instead of the planned socio-economic questionnaire, which the school system refused to allow us to use, socio-economic data was obtained on the basis of residential addresses, with the exception of the oldest, university attending, age group.

The major groupings of subjects consists of six age groups of black subjects classified as belonging to a lower socio-economic class, and five age groups of middle class status white subjects, whose residential area values are above the average for the city of Detroit. The socio-economic ratings obtained by the value of homes on the residential block were found to be consistent with ratings for each school obtained from median income data.

The results of the study are reported by school number, assigned in order to protect the schools used in the study. Schools 1 and 3 are almost 100% black inner city elementary and junior high schools respectively. Schools 2, 4, and 5 are racially integrated elementary, junior high, and high schools respectively. School 2 is a feeder school for school 4, whose students, in turn, enter school 5. Schools 4 and 5 are located on adjacent properties, and provide for direct comparison of the temporal perspectives of white and black 15 and 18 year old groups, who attend the same low socio-economic area schools. Schools 7, 8, and 9 are elementary, junior high, and high schools in a predominantly white residential area. All three schools had a black enrollment of less than 5%. The three schools, which provided four white groups of students, are especially well suited for studying developmental trends since they are in close proximity to each other, and draw their student population from a relatively homogenous area. School 6 is a large, private university. Socio-economic data sheets were filled out by the subjects here, before the use of the same questionnaire was denied in the public school system. From the data it appears that the black group of subjects belong to lower socio-economic class than the white students attending the university. The white students' parents are predominantly professional, management personnel, or business owners, while the majority of the black students' parents are semi-skilled or skilled workers.

### Analysis of the Data

The tabular presentation of the data will follow the same outline as the format in Table 1. In column one, information is presented about the six lower socio-economic class black age groups; in column two, information is provided for the two lower socio-economic white age groups; and column three summarizes the data for the five middle class white groups. Data for the same age group subjects across racial and class differences are presented in the same horizontal groupings. Developmental analyses are appropriate for the five white age groups of the same socio-economic class, and the six black age groups whenever there are no differences between integrated and segregated schools. Comparison of data for black and white students of the same class level is feasible for the 15 and 18 year old age groups who attend the same school. For whites, comparisons of the 15 and 18 year old groups across schools can be used to test the effect of class differences. A

1.)

A confounded race and class comparison can be made between the black groups in schools 2, 3, 4, 5, and 6 and comparable white age groups from schools 7, 8, 9, and 6. To compare the black integrated and segregated schools the data for schools 2 and 4 can be compared with the data for schools 1 and 3.

In the results section all important and significant comparisons will be pointed out, but many of the insignificant differences will not be discussed. Because of the nature of the data obtained, most of the statistical analyses are non-parametric, which are more appropriate for the non-normal distributions found than the usual parametric techniques.



## RESULTS

### Relative Importance of Past, Present, and Future

Tables 2, 3, and 4 present the mean percentage, the standard deviation of the mean percentage, and the median percentage of past, present, and future tense verbs used by each group in the production of TAT stories and story completions one and two respectively. In addition, Tables 2, 3, and 4 present the number of subjects in each age group who use at least one verb in the past, present, and future tense, and the percentage of subjects who use each of the verb tenses. Especially in groups where not all subjects use the three different verb tenses the median percentage is the most representative of the group behavior.

In the two story completions the most characteristic response is the use of the past tense. For story one, all 13 groups demonstrate a median past percentage of over 76, and 12 out of the 13 groups on story two show a median percentage of past usage above 75. In each of the story completions only one group out of the 13 gave future tense verbs above a zero median value. Interestingly, in one story the greatest future usage is by the black and in the other story by the white 19 year old university student group. The usage of present tense verbs is also very limited in the two story completions. Only five of the groups have a median value of above zero for the present on story one, and four groups on story two. In story two, four of the five groups which exhibit a median value for usage of present are 18 years old or older, and in story completion one, all five groups in which more than half the subjects use at least one present tense verb, are 14 years old or older. There is evidence for a developmental trend for using present tense verbs, in addition to the modal past usage, which starts to appear at age 14. Only the oldest age group of 19 starts to include the future in the story completion tasks.

It appears from the results that the technique of story completion directs each individual to complete the story using mainly past tense verbs, and therefore, is an inefficient tool for studying the relative importance of past, present, and future. No differences based on socio-economic class, or attendance of integrated as compared to segregated schools appear on the relative importance of time division measures, derived from the two story completion tasks. The major racial differences on comparing the five similar age black groups with the middle class white groups are in the proportionately greater number of whites who use at least one future tense verb. On story one, 8 out of 58 of the blacks and 27 out of 72 of the whites use a future tense verb. ( $X^2=8.01$ ,  $p<.01$ ). The corresponding figures on story two are 10 out of 68 blacks and 23 out of 71 whites ( $X^2=5.07$ ,  $p<.05$ ).

The production of TAT stories to the picture of a boy with a violin resulted in the production of present tense verbs to the greatest extent, followed by past tense verbs, and a much more limited amount of future tense verbs. The TAT stories appear to be more efficient for measuring relative importance of past and present than the story completions.

One tool for examining the significance of differences between the proportion of past, present, and future responses given within

TABLE 2

MEAN, S.D., AND MEDIAN USAGE OF PAST, PRESENT, AND FUTURE TENSE VERBS ON THE TAT, AND NUMBER AND % OF SUBJECTS USING EACH TIME DIVISION

AGE	BLACKS L.C.			WHITES L.C.			WHITES M.C.						
	SCHOOL	PAST	PRES	FUT	SCHOOL	PAST	PRES	FUT	SCHOOL	PAST	PRES	FUT	
11	MEAN %	37.1	58.3	4.7									
	S.D.	42.9	41.2	10.7									
	MDN.	<u>1</u>	16.7	76.5	0.0								
	NO.		11	11	4								
	% Ss		73.3	73.3	26.7								
12	MEAN %	8.1	84.0	7.9						42.0	54.1	3.9	
	S.D.	14.7	6.2	12.1						42.9	41.9	6.1	
	MDN.	<u>2</u>	0.0	89.2	0.0				<u>7</u>	25.0	75.0	0.0	
	NO.		5	14	4					10	11	10	
	% Ss		35.7	100	35.7					66.7	73.3	66.7	
14	MEAN %	14.9	78.3	6.2						57.3	37.1	5.5	
	S.D.	33.3	33.7	9.6						43.9	42.1	7.7	
	MDN.	<u>3</u>	0.0	100	0.0				<u>8</u>	80.0	10.0	0.0	
	NO.		4	13	5					12	9	5	
	% Ss		28.6	92.9	35.7					80.0	60.0	33.3	
15	MEAN %	10.5	76.0	13.5	10.7	82.2	7.1	27.6	57.1	15.3			
	S.D.	17.5	24.7	19.9	22.0	23.7	7.9	32.8	33.1	15.2			
	MDN.	<u>4</u>	0.0	73.4	0.0	<u>4</u>	0.0	86.7	6.7	<u>9</u>	15.8	61.9	12.7
	NO.		5	14	6		5	15	8		10	12	9
	% Ss		35.7	100	42.9		33.3	100	53.3		71.4	85.7	64.3
18	MEAN %	18.1	78.1	3.8	20.3	64.7	15.1	24.2	64.9	10.9			
	S.D.	24.5	23.3	6.5	32.5	31.0	26.9	32.0	34.7	14.2			
	MDN.	<u>5</u>	16.3	64.6	14.6	<u>5</u>	0.0	75.0	5.0	<u>9</u>	3.6	79.2	10.9
	NO.		8	14	4		6	14	8		7	14	8
	% Ss		57.1	100	28.6		40.0	93.3	53.3		50.0	100	57.1
19	MEAN %	23.4	62.2	14.4				23.3	65.6	11.1			
	S.D.	30.4	27.7	13.6				23.9	27.8	11.6			
	MDN.	<u>6</u>	16.3	64.6	14.6			<u>6</u>	13.4	74.1	10.8		
	NO.		8	11	9				12	14	9		
	% Ss		66.7	91.7	75.0				85.7	100	64.3		





TABLE 4

MEAN, S.D., AND MEDIAN USAGE OF PAST, PRESENT, AND FUTURE TENSE VERBS  
ON STORY 2, AND NUMBER AND % OF SUBJECTS USING EACH TIME DIVISION

AGE	SCHOOL	BLACKS L.C.			SCHOOL	WHITES L.C.			SCHOOL	WHITES M.C.				
		PAST	PRES	FUT		PAST	PRES	FUT		PAST	PRES	FUT		
11		MEAN %	90.7	6.3	2.9									
		S.D.	11.4	9.6	7.0									
		MDN.	<u>1</u>	100	0.0	0.0								
		NO.	15	6	3									
		% Ss	100	40.0	20.0									
12		MEAN %	77.6	21.3	1.2					77.1	15.1	7.7		
		S.D.	28.9	25.6	4.5					29.6	27.9	18.4		
		MDN.	<u>2</u>	81.5	18.4	0.0			<u>7</u>	88.9	0.0	0.0		
		NO.	13	8	1				15	5	6			
		% Ss	92.9	57.1	7.2				100	33.3	40.0			
14		MEAN %	85.6	14.4	0.0					92.2	5.4	2.4		
		S.D.	27.2	3.6	0.0					11.5	10.4	5.1		
		MDN.	<u>3</u>	100	0.0	0.0			<u>8</u>	100	0.0	0.0		
		NO.	12	6	0				14	5	4			
		% Ss	85.7	42.9	0.0				100	35.7	28.6			
15		MEAN %	90.5	9.1	0.5		86.2	11.6	2.3		81.6	16.6	1.8	
		S.D.	19.3	18.7	1.8		26.4	25.8	6.5		30.4	31.1	5.1	
		MDN.	<u>4</u>	100	0.0	0.0	<u>4</u>	100	0.0	0.0	<u>9</u>	98.6	0.0	0.0
		NO.	14	3	1		14	6	3		13	6	2	
		% Ss	100	21.4	7.1		93.3	40.0	20.0		92.9	42.9	14.3	
18		MEAN %	78.3	18.0	3.6		79.4	18.1	2.5		84.7	12.7	2.6	
		S.D.	30.0	27.7	9.1		28.0	23.9	5.8		18.5	18.7	3.8	
		MDN.	<u>5</u>	91.9	6.3	0.0	<u>5</u>	83.7	11.1	0.0	<u>9</u>	89.1	5.5	0.0
		NO.	13	7	3		14	8	3		14	8	5	
		% Ss	92.9	50.0	21.4		93.3	53.3	20.0		100	57.1	35.7	
19		MEAN %	58.6	30.6	10.7						83.3	10.2	6.5	
		S.D.	34.9	36.3	22.6						18.1	16.1	10.8	
		MDN.	<u>6</u>	52.3	10.1	1.5					85.4	0.0	0.0	
		NO.	12	7	5						14	6	6	
		% Ss	100	58.3	41.7						100	42.9	42.9	

each group is to use the sign test, which compares the past-present, past-future, and present-future pairs of proportional use. The summary of two-tail probabilities is presented in Table 5 for the TAT, story one, and story two. The most striking observation is that in the white middle class group there are no significant differences for the past-present comparisons on the TAT stories, while for all black groups and one of the two white lower class groups the past-present differences are significant. The interpretation is that white middle class boys produce roughly equal numbers of past and present tense verbs, while the black groups and one white lower class group produce present references in greater numbers than the use of past. This pattern does not hold for the two story completions, where past tense verbs predominate for all groups. On the past-future comparisons there are no significant differences on the TAT stories in 11 groups, indicating that both time divisions are used to a relatively small extent. Because the present tense use is the predominant usage on the TAT all present-future comparisons are significant in Table 5.

In story one all present-future differences are significant in the three youngest black groups and not significant in the three oldest groups. Examination of the data shows that 20 out of the 43 black children in the three youngest age groups use at least one present tense verb, while only 2 out of the 43 use future tense verbs, resulting in significant present-future differences. In contrast, in the three oldest black groups a total of 15 subjects used present tense verbs and 7 used future tense verbs, resulting in no significant differences between present and future tense verb usage.

Major differences between the black and white groups studied appear on the TAT verb usage. Comparison of the five black and white 12, 14, 15, 18, and 19 year old age groups, in which both race and class are confounded, shows a significantly greater use of the future by whites ( $X^2=15.5$ ,  $p<.001$ ). A similar comparison of the number of boys using at least one past tense also indicates that more whites use past tense than blacks ( $X^2=9.2$ ,  $p<.01$ ). Similar comparisons of whites and blacks of the same socio-economic class and who attend the same school shows no significant differences on the use of the past and the future on the TAT, nor does the comparison of whites who are of the same age, but differ in socio-economic class. One reason for the observed interaction in which both socio-economic differences and race differences jointly result in differential usage of past and future, comes from the observation that the major differences between the black and white groups are present in the three youngest but not the two oldest age groups. As presented above, the same racial differences, of more whites using future tense verbs, were also significant in stories one and two. Racial differences in the past usage were not significant in the two stories.

One set of intended measures of the relative importance of past, present, and future was computing the proportionate number of events in each time dimension from the number of events subjects listed that happened to them in the far past, near past, present, near future, and far future. All groups of subjects tended to give an equal number of events in each time dimension, indicating either equal importance of each dimension, or, more likely, an unintended set to list equal numbers of events. Appendix tables 14 to 27 present the raw data for the events

TABLE 5

SIGNIFICANCE LEVELS OF PAST-PRESENT, PAST-FUTURE, AND PRESENT-FUTURE SIGN TEST COMPARISONS FOR EACH GROUP ON TAT, AND STORIES 1 AND 2

AGE		SCHOOL	BLACKS L.C.			SCHOOL	WHITES L.C.			SCHOOL	WHITES M.C.		
			PAST PRES	PAST FUT	PRES FUT		PAST PRES	PAST FUT	PRES FUT		PAST PRES	PAST FUT	PRES FUT
11	TAT	<u>1</u>	036	040	002								
	STORY 1		002	002	032								
	STORY 2		002	002	218								
12	TAT	<u>2</u>	002	637	002				<u>7</u>	608	660	006	
	STORY 1		002	008	002					002	002	688	
	STORY 2		006	002	008					012	002	623	
14	TAT	<u>3</u>	012	500	002				<u>8</u>	302	012	022	
	STORY 1		058	002	032					002	002	688	
	STORY 2		002	002	032					002	002	376	
15	TAT	<u>4</u>	002	637	004	<u>4</u>	002	500	002	<u>9</u>	058	613	006
	STORY 1		002	002	NS		226	012	454		058	006	110
	STORY 2		002	002	NS		002	002	454		002	002	124
18	TAT	<u>5</u>	012	290	002	<u>5</u>	058	754	002	<u>9</u>	266	500	006
	STORY 1		004	004	124		016	016	500		002	002	290
	STORY 2		002	002	070		002	002	016		002	002	124
19	TAT	<u>6</u>	038	623	012					<u>6</u>	180	226	004
	STORY 1		226	012	124						002	002	774
	STORY 2		388	022	180						002	002	180

test, which will be used for measures of extension and affect, and not for the discussion of the relative importance of past, present, and future.

### Semantic Differential Attitudes to Past, Present, and Future

Tables 6, 7, and 8 present the mean rankings and the standard deviations of evaluative, activity, and potency semantic differential ratings, respectively. Because collapsing of the individual attitude components on each type of scale did not result in further clarification of the results, the seven scales used in the study are presented separately.

The three evaluative scales of good-bad, kind-cruel, and beautiful-ugly have yielded similar findings in measuring the attitudes toward the past, the present, and the future. The most consistent finding is that in all groups studied the rank order of evaluation tends to rate the future as the best, followed by the present, and the evaluation of the past as the worst, being rated at around the mid-point of the seven point scale used. On the good-bad scale all 13 groups ( $p < .004$ ) evaluated the future better than the present. The present was judged by 11 groups out of the 13 ( $p < .03$ , sign test) better than the past.

On the whole, there are no significant differences on the evaluation scales between the major groupings of black subjects, white middle class, and white lower class subjects. There is a tendency for the black 11 year old group in the racially segregated school to judge the future as worse than the black 12 year old integrated group on the good-bad scale ( $t = 1.94$ ,  $p < .06$ ) and worse than the 15 year old integrated black group ( $t = 1.990$ ,  $p < .06$ ). However, this tendency is not confirmed by the kind-cruel, and beautiful-ugly scales.

No regular developmental trends appear on the evaluative scales. However, the black 19 year old university group evaluated the present and the future significantly less optimistically than the other black groups on all three evaluative scales. The good-bad present comparison of the black 19 year old group against the black 15 year old group resulted in  $t = 2.37$ ,  $p < .05$ ; with the black 12 year old group, in  $t = 2.51$ ,  $p < .02$ . The same comparisons on the future resulted in  $t = 2.28$ ,  $p < .05$ , and  $t = 2.14$ ,  $p < .05$ . On the kind-cruel scale, both present and future comparisons of the black 19 year old group with the black 15 and 18 year old groups yield significantly different  $t$  values ( $t = 2.85$ ,  $t = 2.02$  for the present and  $t = 2.07$ ,  $t = 2.05$  for the future). On the beautiful-ugly scale, the present for the black 19 year old group is significantly worse than the ratings of the 12 and 14 year old groups ( $t = 2.24$ ,  $p < .05$ , and  $t = 2.45$ ,  $p < .05$  respectively).

One class difference appears in the form of a worse evaluation of the past by the white lower class group than the white middle class group on the good-bad scale ( $t = 3.11$ ,  $p < .001$ ) and the beautiful-ugly scale ( $t = 2.55$ ,  $p < .02$ ). Interestingly, the black 18 year old group, which attends the same school as the white 18 year old lower class group, also evaluated the past in a similarly pessimistic fashion.

The data strongly indicate that the optimism for the future, a traditional American value judgment, is overwhelmingly stronger than

TABLE 6

MEAN RANKINGS AND STANDARD DEVIATIONS OF PAST, PRESENT, AND FUTURE ON EVALUATIVE SEMANTIC DIFFERENTIAL SCALES FOR EACH GROUP.

AGE	SCALES	SCHOOL	BLACKS L.C.			SCHOOL	WHITES L.C.			SCHOOL	WHITES M.C.		
			PAST	PRES	FUT		PAST	PRES	FUT		PAST	PRES	FUT
11	GOOD- $\bar{X}$	<u>1</u>	2.93	2.47	2.79								
	BAD $\underline{S}$		2.02	2.10	2.06								
	KIND- $\bar{X}$		2.87	2.33	2.60								
	CRUEL $\underline{S}$		1.81	1.76	1.84								
	BEAUT- $\bar{X}$		2.20	2.20	2.20								
	UGLY $\underline{S}$		1.42	1.52	1.26								
12	GOOD- $\bar{X}$	<u>2</u>	3.29	1.64	1.57					<u>7</u>	3.53	2.87	2.60
	BAD $\underline{S}$		2.40	1.28	1.16						1.81	1.81	2.06
	KIND- $\bar{X}$		3.64	2.64	2.29						3.47	3.07	3.53
	CRUEL $\underline{S}$		2.24	2.17	1.94						2.13	1.67	2.07
	BEAUT- $\bar{X}$		3.79	2.07	2.07						3.53	3.40	3.27
	UGLY $\underline{S}$		2.33	1.27	1.49						1.19	1.64	1.83
14	GOOD- $\bar{X}$	<u>3</u>	3.79	2.29	1.93					<u>8</u>	3.00	2.20	1.73
	BAD $\underline{S}$		2.08	1.90	1.73						1.69	1.21	1.03
	KIND- $\bar{X}$		3.57	2.71	2.21						2.40	2.60	2.20
	CRUEL $\underline{S}$		2.31	1.68	1.80						1.06	1.24	1.01
	BEAUT- $\bar{X}$		2.86	2.00	2.29						3.07	3.07	2.20
	UGLY $\underline{S}$		2.12	1.18	1.77						1.16	1.33	1.52
15	GOOD- $\bar{X}$	<u>4</u>	3.00	1.79	1.57	<u>4</u>	3.07	2.64	2.43	<u>9</u>	3.50	2.79	2.14
	BAD $\underline{S}$		2.18	1.61	0.78		2.02	1.65	1.50		1.61	1.89	0.95
	KIND- $\bar{X}$		3.00	1.71	1.43		2.93	2.93	2.07		3.00	3.29	2.29
	CRUEL $\underline{S}$		2.35	0.99	1.68		1.98	1.68	1.21		1.71	2.23	1.44
	BEAUT- $\bar{X}$		2.42	2.43	2.00		2.93	2.71	2.79		3.07	3.07	2.14
	UGLY $\underline{S}$		1.60	1.34	1.41		1.64	1.34	1.80		1.54	1.64	1.17
18	GOOD- $\bar{X}$	<u>5</u>	4.08	2.67	1.67	<u>5</u>	4.15	2.23	1.54	<u>9</u>	2.50	2.64	1.93
	BAD $\underline{S}$		1.88	1.61	0.78		1.34	1.01	0.66		1.40	1.74	1.38
	KIND- $\bar{X}$		3.58	2.00	1.67		3.31	2.85	2.15		2.64	2.50	1.86
	CRUEL $\underline{S}$		1.83	1.21	1.07		1.60	1.40	1.28		1.28	1.09	1.10
	BEAUT- $\bar{X}$		3.83	2.25	1.83		4.46	2.92	2.00		3.14	3.43	2.57
	UGLY $\underline{S}$		2.04	1.29	1.19		0.88	0.86	1.16		1.66	1.65	1.45
19	GOOD- $\bar{X}$	<u>6</u>	2.92	2.92	2.58					<u>6</u>	2.64	2.43	1.86
	BAD $\underline{S}$		2.11	1.31	1.24						1.34	1.28	0.95
	KIND- $\bar{X}$		3.17	3.17	2.67						2.79	2.36	2.43
	CRUEL $\underline{S}$		1.95	1.59	1.30						1.05	0.84	1.02
	BEAUT- $\bar{X}$		3.00	3.25	2.50						3.21	3.14	2.29
	UGLY $\underline{S}$		1.65	1.42	1.17						1.19	0.95	0.91



TABLE 7

MEAN RANKINGS AND STANDARD DEVIATIONS OF PAST, PRESENT, AND FUTURE ON ACTIVITY SEMANTIC DIFFERENTIAL SCALES FOR EACH GROUP.

AGE	SCALES.	SCHOOL	BLACKS L.C.			SCHOOL	WHITES L.C.			SCHOOL	WHITES M.C.				
			PAST	PRES	FUT		PAST	PRES	FUT		PAST	PRES	FUT		
11	PASS- $\bar{X}$	<u>1</u>	5.27	5.73	5.27										
	ACTIVE $\underline{S}$		2.19	1.83	2.12										
	SLOW- $\bar{X}$		4.27	5.33	5.20										
	FAST $\underline{S}$		2.43	2.16	2.18										
12	PASS- $\bar{X}$	<u>2</u>	5.93	6.71	5.64					<u>7</u>	5.20	5.27	5.27		
	ACTIVE $\underline{S}$		2.02	0.61	2.20						1.94	2.12	1.98		
	SLOW- $\bar{X}$		5.14	4.79	4.93						4.47	4.47	4.40		
	FAST $\underline{S}$		2.63	2.79	2.73						1.85	1.81	1.92		
14	PASS- $\bar{X}$	<u>3</u>	4.93	6.29	6.50					<u>8</u>	5.53	6.27	6.47		
	ACTIVE $\underline{S}$		2.43	1.27	0.86						1.68	1.22	0.64		
	SLOW- $\bar{X}$		3.93	5.07	4.86						4.47	5.53	5.53		
	FAST $\underline{S}$		2.20	2.16	2.60						1.73	1.96	1.73		
15	PASS- $\bar{X}$	<u>4</u>	4.79	6.21	6.14	<u>4</u>	5.79	6.21	5.86	<u>9</u>	5.79	6.14	6.57		
	ACTIVE $\underline{S}$		2.46	1.48	1.51			1.42	1.12		1.17		2.01	1.46	0.65
	SLOW- $\bar{X}$		4.50	4.14	3.14			4.14	5.71		3.64		4.50	4.64	4.71
	FAST $\underline{S}$		2.65	2.44	2.44			1.83	1.14		1.82		2.07	2.27	1.77
18	PASS- $\bar{X}$	<u>5</u>	4.33	5.83	6.33	<u>5</u>	5.00	5.54	5.08	<u>9</u>	5.21	5.43	6.29		
	ACTIVE $\underline{S}$		2.50	1.47	1.61			1.47	1.45		2.25		1.72	1.56	0.99
	SLOW- $\bar{X}$		4.50	5.17	4.25			3.69	5.92		4.54		5.07	5.43	4.79
	FAST $\underline{S}$		2.36	1.90	2.45			1.93	1.19		2.14		1.44	1.99	1.72
19	PASS- $\bar{X}$	<u>6</u>	5.58	3.83	5.25					<u>6</u>	4.50	5.71	6.00		
	ACTIVE $\underline{S}$		1.93	2.04	1.96						1.79	1.44	1.62		
	SLOW- $\bar{X}$		5.17	5.00	4.83						4.64	6.00	5.57		
	FAST $\underline{S}$		1.99	2.04	1.80						1.74	0.96	1.09		
GROUP TOTALS:															
	PASS- $\bar{X}$		5.15	5.81	5.85		5.41	5.89	5.48		5.25	5.76	6.11		
	ACTIVE $\underline{S}$		2.27	1.51	1.77		1.44	1.29	1.77		1.83	1.59	1.30		
	SLOW- $\bar{X}$		4.57	4.91	4.54		3.92	5.81	4.07		4.63	5.21	5.00		
	FAST $\underline{S}$		2.40	2.28	2.40		1.88	1.16	1.98		1.78	1.85	2.81		

TABLE 8

MEAN RANKINGS AND STANDARD DEVIATIONS OF PAST, PRESENT, AND FUTURE ON POTENCY SEMANTIC DIFFERENTIAL SCALES FOR EACH GROUP.

AGE	SCALES	SCHOOL	BLACKS L.C.			SCHOOL	WHITES L.C.			SCHOOL	WHITES M.C.				
			PAST	PRES	FUT		PAST	PRES	FUT		PAST	PRES	FUT		
11	STRNG- $\bar{X}$	<u>1</u>	2.93	2.00	1.73										
	WEAK $S$		2.12	1.25	0.96										
	HARD- $\bar{X}$		2.93	3.13	3.87										
	SOFT $S$		2.09	2.30	2.53										
12	STRNG- $\bar{X}$	<u>2</u>	2.00	2.29	1.64					<u>7</u>	3.00	2.80	2.40		
	WEAK $S$		1.75	1.94	1.28						1.46	1.70	1.12		
	HARD- $\bar{X}$		3.21	4.64	4.00						4.20	4.40	3.73		
	SOFT $S$		2.42	2.62	2.63						1.57	1.50	1.83		
14	STRNG- $\bar{X}$	<u>3</u>	2.86	3.79	2.07					<u>8</u>	3.67	3.20	2.33		
	WEAK $S$		2.14	2.52	1.59						1.18	1.52	1.29		
	HARD- $\bar{X}$		3.86	4.71	4.00						3.80	4.07	4.07		
	SOFT $S$		2.21	2.23	2.54						1.61	1.87	1.58		
15	STRNG- $\bar{X}$	<u>4</u>	3.07	1.93	1.71	<u>4</u>	3.21	2.36	2.71	<u>9</u>	3.14	2.86	2.29		
	WEAK $S$		2.09	1.14	1.14			1.76	1.28		1.64		1.46	1.56	1.33
	HARD- $\bar{X}$		4.07	3.71	5.36			3.57	3.50		3.36		3.79	3.50	3.00
	SOFT $S$		2.67	2.13	2.13			1.40	1.40		1.65		1.39	2.03	1.57
18	STRNG- $\bar{X}$	<u>5</u>	4.50	2.83	1.75	<u>5</u>	2.69	2.85	2.31	<u>9</u>	3.64	3.21	2.57		
	WEAK $S$		1.57	1.34	0.87			1.35	1.52		1.11		1.55	1.53	1.09
	HARD- $\bar{X}$		3.33	4.33	5.00			2.77	3.69		4.23		4.71	3.93	4.50
	SOFT $S$		1.92	1.78	2.00			1.24	1.60		1.83		1.38	1.98	1.79
19	STRNG- $\bar{X}$	<u>6</u>	2.83	3.00	2.08					<u>6</u>	2.93	2.86	1.86		
	WEAK $S$		1.95	1.91	1.08								1.38	1.29	0.53
	HARD- $\bar{X}$		3.92	3.75	3.42								4.00	4.14	3.86
	SOFT $S$		2.58	1.91	2.02								1.41	1.51	1.79
GROUP TOTALS:															
	STRNG- $\bar{X}$		3.00	2.62	1.82		2.96	2.60	2.52		3.28	2.97	2.29		
	WEAK $S$		1.96	1.75	1.18		1.58	1.40	1.41		1.41	1.53	1.11		
	HARD- $\bar{X}$		3.54	4.03	4.27		3.18	3.59	3.78		4.10	4.01	3.83		
	SOFT $S$		2.33	2.20	2.34		1.33	1.50	1.74		1.48	1.79	1.72		

any developmental, socio-economic, racial, or school influences are. The data also indicate that the past, present, and future time divisions are receiving different, and distinctive evaluations in the major groupings, showing that the time dimensions are differentiated by boys in the age range of 11 to 19.

On the passive-active scales, for which data are presented in Table 7, there are less clear-cut differentiations of past, present, and future than on the evaluative scales. The tendency in all groups is to judge all time dimensions as moderately or highly active (group means range from 5.15 to 6.11 on the 7 point scale). In the white middle class groups there is a tendency for evaluating the future as most active, followed by the present, and the past as the least active, however, the differences are small. The observed tendency is not confirmed by the slow-fast scale, which makes the generalization of the passive-active ranking for white middle class boys doubtful.

The 19 year old black university group is atypical in judging the present only very slightly active ( $X=3.83$  against  $X=5.85$  for the black group). All five  $t$  values computed for comparing the 11, 12, 14, 15, 18, and 19 year old black groups are significant at least on the .02 level ( $t=2.55, 5.04, 3.74, 3.43, \text{ and } 2.75$ , respectively). The mean activity rating for the future is also the lowest for the university black group ( $X=5.25$ ), which is significantly different from the 14 year old black group ( $t=2.16, p<.05$ ).

A relatively low activity mean of 5.27 for the future is also found in the white 12 year old middle class group. The differences are significant on comparisons with the white middle class 14 and 15 year old groups ( $t=2.23, p<.05, \text{ and } t=2.33, p<.05$ , respectively). A similar trend is noticeable in the youngest 11 year old black group which gives a low activity rating of 5.27 for the future. This mean is significantly different from the mean of 6.50 given by the other segregated school-attending black group ( $t=2.01, p<.06$ ). It appears that the activity rating for the future is the lowest in the youngest age group, and develops to become more active, at least until the age of 18.

On the slow-fast scale the white 12 year old group judges the present as significantly slower than the corresponding 19 year old group ( $t=2.80, p<.001$ ).

Table 8 presents the strong-weak, and the hard-soft potency evaluations of past, present, and future. On the strong-weak scale all 13 groups judged the future stronger than the past, and in 12 out of the 13 groups the future was judged to be stronger on the average than the present. On the hard-soft scale five of the six black groups judged the future to be softer than the past, but only two of the seven white groups showed the same relational pattern.

The 18 year old black group judged the past as very weak ( $\bar{X}=4.50$ ), which is a significantly different judgment from the 11, 12, 14, and 19 year old black groups ( $t=2.14, 3.80, 2.19, \text{ and } 2.31$  respectively,  $p<.05$ ), and is also significantly weaker than the judgment of the corresponding 18 year old white group in the same school ( $t=3.10, p<.001$ ). Another significant racial difference is apparent in the comparison of the future hard-soft ratings for the black 15 year old group with the white 15 year old group in the same schools. The mean rating for the black group was 5.36 and for the white group, 3.36 ( $t=2.78, p<.001$ ), indicating that the black group judged the future to be softer than the white group.

## Affect Toward Personal Events and Time Machine Travel in the Past, Present, and Future

Table 9 presents the affect information toward personal events in the subjects' lives obtained from the events test. The negative (-), neutral (0), and positive (+) affect for past, present, and future events are derived from the mean ratings of all events, which belong to the particular time division.

The results confirm the findings obtained with the evaluative scales of the semantic differential. The future events are evaluated in a predominantly positive manner by all the groups studied, followed by a positive evaluation of the present by a large proportion of subjects. Only half of the subjects evaluated the present positively in the black 19 year old group from the university, again confirming the semantic differential findings of their dissatisfaction with the present. There are no significant racial, developmental, or socio-economic class differences on the evaluation of the present and future events. Significant racial differences appear on comparing the evaluation of past personal events. Whites tend to evaluate the past more positively than blacks do. Comparison of the 15 and 18 year old white and black groups from the same schools on the positive evaluation of past events against the neutral and negative categories shows that 41% of the black subjects, and 71% of the white subjects evaluate the past positively. The differences are significant ( $X^2=4.09$ ,  $p<.05$ ). A similar comparison of the 12, 14, 15, 18, and 19 year old black lower class groups with white middle class subjects shows that 45% of the black subjects and 65% of the white subjects evaluate events in their personal past positively ( $X^2=5.10$ ,  $p<.05$ ). It is of interest to note that for the black subjects there is a felt disadvantage in the past, but not in the present or the future as compared to whites.

Table 10 presents information about the number of subjects in each group, who stated a preference in a forced choice situation for time travel into the past, staying in the present, or going into the future. Other data in Table 10 show the number of subjects in each group who expresses liking, neutrality, or disliking for time travel in the past, present, or future.

Less black subjects than white subjects prefer time travel into the past in the five race and class confounded same age groups, indicating that the findings of more negative affect for past personal events for the black groups generalize into greater rejection of the past as a time travel possibility. Eleven out of 65 black subjects and 22 out of 71 white subjects prefer the past time travel possibility. However, the differences are significant only at the .10 probability level, using chi square comparisons, and can be taken as indicative of a trend only.

The expression of positive, neutral, or negative feelings toward travel into the past and future, and toward staying in the present is difficult to interpret. It appears that the four youngest age group black subjects and the youngest age group white subjects appear to like all the three possibilities, while the older groups register more selective likes and dislikes.

Table 11 is a summary of the feeling tone of the TAT stories and of the stories obtained from the two story completions. The major

TABLE 9

NUMBER OF SUBJECTS EXPRESSING NEGATIVE, NEUTRAL, AND POSITIVE AFFECT FOR PAST, PRESENT, AND FUTURE EVENTS.

AGE	AFFECT	BLACKS L.C.			WHITES L.C.			WHITES M.C.					
		SCHOOL	PAST	PRES.	FUT.	SCHOOL	PAST	PRES.	FUT.	SCHOOL	PAST	PRES.	FUT.
11	NO. -	<u>1</u>	8	3	0								
	NO. 0		2	1	2								
	NO. +		5	11	13								
12	NO. -	<u>2</u>	4	0	0				<u>7</u>	2	1	1	
	NO. 0		2	2	0					3	4	2	
	NO. +		8	11	14					10	9	12	
14	NO. -	<u>3</u>	5	3	1				<u>8</u>	5	0	0	
	NO. 0		5	2	2					0	3	0	
	NO. +		4	9	11					10	12	15	
15	NO. -	<u>4</u>	2	2	0	<u>4</u>	3	1	1	<u>9</u>	5	0	0
	NO. 0		5	4	0		3	1	0		3	2	0
	NO. +		7	8	14		8	11	13		6	12	14
18	NO. -	<u>5</u>	8	0	1	<u>5</u>	2	2	0	<u>9</u>	3	2	0
	NO. 0		1	3	0		0	0	0		2	0	0
	NO. +		4	9	12		12	12	14		9	12	14
19	NO. -	<u>6</u>	2	5	0					<u>6</u>	1	3	1
	NO. 0		2	1	0						1	2	0
	NO. +		8	6	10						12	9	13

TABLE 10

NUMBER AND PERCENTAGE OF SUBJECTS' PREFERENCE FOR PAST, PRESENT, AND FUTURE TIME TRAVEL, AND NUMBER OF NEGATIVE, NEUTRAL, AND POSITIVE FEELINGS TOWARDS TIME TRAVEL IN EACH DIMENSION.

AGE	SCHOOL	BLACKS L.C.			SCHOOL	WHITES L.C.			SCHOOL	WHITES M.C.			
		PAST	PRES	FUT		PAST	PRES	FUT		PAST	PRES	FUT	
11													
		NO. PREF	3	4	8								
		% PREF	20.0	26.7	53.3								
		NO -	<u>1</u>	2	6	3							
		NO 0		0	0	4							
	NO +		12	8	7								
12													
		NO PREF	2	6	6				7	4	4		
		% PREF	14.3	42.9	42.9				46.7	26.7	26.7		
		NO -	<u>2</u>	1	5	1			<u>7</u>	1	2	2	
		NO 0		2	2	3				5	4	0	
	NO +		12	8	11				9	9	13		
14													
		NO PREF	3	7	4				4	3	8		
		% PREF	21.4	50.0	28.9				26.7	20.0	53.3		
		NO -	<u>3</u>	1	3	3			<u>8</u>	3	3	5	
		NO 0		3	1	0				0	7	0	
	NO +		10	10	11				12	5	10		
15													
		NO PREF	3	7	4	2	7	5	4	6	3		
		% PREF	21.4	50.0	28.9	14.3	50.0	35.7	28.9	42.9	21.4		
		NO -	<u>4</u>	1	2	1	<u>4</u>	6	3	5	<u>9</u>	4	7
		NO 0		3	2	3		4	7	1		3	3
	NO +		10	10	10		4	4	8		7	4	
18													
		NO PREF	2	8	1	2	4	5	3	5	6		
		% PREF	18.2	72.7	9.1	18.2	36.4	45.4	21.4	35.7	42.9		
		NO -	<u>5</u>	6	1	4	<u>5</u>	5	4	3	<u>9</u>	5	5
		NO 0		1	1	4		2	4	2		3	4
	NO +		4	9	5		3	2	5		6	5	
19													
		NO PREF	1	6	5				4	5	5		
		% PREF	8.3	50.0	41.7				28.9	35.7	35.7		
		NO -	<u>6</u>	4	3	5			<u>6</u>	3	6	7	
		NO 0		3	4	1				2	3	0	
	NO +		5	5	6				9	5	7		

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TABLE 11

NUMBER OF SUBJECTS EXPRESSING NEGATIVE, NEUTRAL, AND POSITIVE AFFECT ON THE TAT, STORY 1, AND STORY 2.

AGE		SCHOOL	BLACKS L.C.			WHITES L.C.			WHITES M.C.							
			NO. OF Ss	NO. -	NO. 0	NO. +	NO. OF Ss	NO. -	NO. 0	NO. +	NO. OF Ss	NO. -	NO. 0	NO. +		
11	TAT	<u>1</u>	15	3	4	8										
	STORY 1		15	3	1	11										
	STORY 2		15	2	7	6										
12	TAT	<u>2</u>	14	2	4	8				<u>7</u>	15	7	2	6		
	STORY 1		14	1	4	9					15	0	7	8		
	STORY 2		14	1	3	10					15	2	4	9		
14	TAT	<u>3</u>	14	4	3	7				<u>8</u>	15	6	3	6		
	STORY 1		14	2	6	6					15	4	6	5		
	STORY 2		14	5	3	6					14	5	3	6		
15	TAT	<u>4</u>	14	6	1	7	<u>4</u>	15	8	1	6	<u>9</u>	14	2	2	10
	STORY 1		10	2	4	4		11	1	2	8		14	6	3	5
	STORY 2		14	2	9	3		15	1	5	9		14	6	2	6
18	TAT	<u>5</u>	14	2	3	9	<u>5</u>	15	2	5	8	<u>9</u>	14	2	4	8
	STORY 1		8	2	1	5		7	2	4	1		14	1	5	8
	STORY 2		14	1	4	9		15	5	6	4		14	3	6	5
19	TAT	<u>6</u>	12	2	3	7					<u>6</u>	14	5	7	2	
	STORY 1		12	1	3	8						14	4	5	5	
	STORY 2		12	1	5	6						14	4	5	5	

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tendency in all groups is to produce positively flavored stories. One major exception is the university age white group, which tends to produce more neutral than positive stories. The data does not indicate the presence of real racial, socio-economic, or developmental differences in the degree of optimism and pessimism expressed in projection of feelings.

### Extension of Temporal Horizons

Table 12 presents the means and standard deviations of the extension ratings of the TAT stories and story completions for each group. There are very few significant differences between the various groups on this extension measure due to large within group variations. Using Mann-Whitney U tests, significant group differences were found only between the 14 and 19 year old white middle class groups, and the 15 and 19 year old white middle class groups. In spite of the wide-spread use of this extension measure it was found that there is no developmental, racial, or social class difference noticeable in the data.

Table 13 presents the summary of the past and future extension data, derived from the personal events test. The mean extension figures in years are derived from finding the event named by the subjects, which is the longest time away in the past or the future from the present age of the subject. For the past extension the means are appropriate measures of the central tendency, however, for the future extension, the median is the most representative. The reason is that the distribution of the future extension scores is bimodal, with a few individuals in each age group projecting to the end of their life span, and the rest exhibiting a more limited future extension of below 30 years. The past time span expands with development, but the future extension appears to be related more to individual personality differences than to development by age.

Tests for significance confirmed the observation that the extension of the past temporal span increases with age. Using median tests the following age pairs were significantly different in the black groups: 11 vs. 18 ( $X^2=9.19$ ,  $p<.01$ ), 11 vs. 19 ( $X^2=9.6$ ,  $p<.01$ ), 12 vs. 18 ( $X^2=8.39$ ,  $p<.01$ ), 12 vs. 19 ( $X^2=12.4$ ,  $p<.001$ ), 14 vs. 18 ( $X^2=8.39$ ,  $p<.01$ ), 14 vs. 19 ( $X^2=8.81$ ,  $p<.01$ ), 15 vs. 18 ( $X^2=6.24$ ,  $p<.02$ ), 15 vs. 19 ( $X^2=7.58$ ,  $p<.01$ ), and 18 vs. 19 ( $X^2=4.81$ ,  $p<.05$ ). The corresponding significant tests for development of the extension of personal time in the past for the white middle class groups are : 12 vs. 14 ( $U=52$ ,  $p<.01$ ), 12 vs. 15 ( $X^2=9.94$ ,  $p<.01$ ), 12 vs. 18 ( $X^2=11.19$ ,  $p<.001$ ), 12 vs. 19 ( $X^2=11.19$ ,  $p<.001$ ), 14 vs. 15 ( $U=66$ ,  $p<.05$ ), 14 vs. 18 ( $U=57.5$ ,  $p<.025$ ), and 14 vs. 19 ( $X^2=4.94$ ,  $p<.05$ ).

The major racial difference appears in the socio-economic class and race confounded comparison of the five groups of black and white subjects of equal age. The black groups tend to have a shorter past extension than the white groups ( $X^2=8.74$ ,  $p<.01$ ). Comparison of black and whites of the same socio-economic class, attending the same schools, results in no significant difference on the past extension measure, indicating that the combination of race and socio-economic differences jointly determine the past extension.



TABLE 12

MEAN EXTENSION RATINGS AND STANDARD DEVIATIONS FOR THE TAT AND STORY COMPLETIONS 1 AND 2 FOR EACH GROUP.

AGE		SCHOOL	BLACKS L.C.			SCHOOL	WHITES L.C.			SCHOOL	WHITES M.C.		
			TAT	STORY 1	STORY 2		TAT	STORY 1	STORY 2		TAT	STORY 1	STORY 2
11	MEAN	<u>1</u>	2.9	2.3	2.3								
	S.D.		2.2	1.4	1.4								
12	MEAN	<u>2</u>	2.5	2.0	2.1				<u>7</u>	3.1	2.1	2.7	
	S.D.		1.9	1.4	1.3					2.1	1.3	1.6	
14	MEAN	<u>3</u>	3.1	1.9	1.5				<u>8</u>	5.1	4.0	3.6	
	S.D.		2.3	1.5	1.1					1.8	1.6	1.9	
15	MEAN	<u>4</u>	2.1	1.1	1.6	<u>4</u>	3.0	2.9	2.6	<u>9</u>	4.8	3.2	2.9
	S.D.		1.9	0.3	1.2		2.0	1.8	1.7		2.1	1.9	1.8
18	MEAN	<u>5</u>	3.3	2.4	3.2	<u>5</u>	3.6	1.7	3.1	<u>9</u>	3.6	3.1	2.6
	S.D.		2.2	1.3	2.2		2.3	1.9	2.1		2.3	1.9	1.8
19	MEAN	<u>6</u>	3.6	3.6	3.4					<u>6</u>	2.4	2.6	2.6
	S.D.		2.4	2.4	2.1						1.9	2.0	1.3

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TABLE 13

MEAN, STANDARD DEVIATION, AND MEDIAN OF PAST AND FUTURE EXTENSION  
IN YEARS ON THE EVENTS QUESTIONNAIRE.

AGE		SCHOOL	BLACKS L.C.		WHITES L.C.		WHITES M.C.	
			PAST	FUT.	PAST	FUT.	PAST	FUT.
11	MEAN	<u>1</u>	4.8	12.5				
	S.D.		2.9	16.4				
	MDN.		4.0	4.0				
12	MEAN	<u>2</u>	5.1	25.7			<u>7</u>	6.5 25.1
	S.D.		3.4	25.0				3.1 25.9
	MDN.		6.0	17.0				8.0 17.0
14	MEAN	<u>3</u>	5.3	24.8			<u>8</u>	9.2 22.9
	S.D.		2.6	26.0				2.6 24.7
	MDN.		5.5	10.5				9.0 13.0
15	MEAN	<u>4</u>	6.1	17.8	<u>4</u>	8.9 14.4	<u>9</u>	10.9 28.1
	S.D.		4.0	14.4		4.4 13.4		2.0 28.2
	MDN.		6.0	13.0		9.0 10.0		11.0 15.0
18	MEAN	<u>5</u>	10.6	18.6	<u>5</u>	11.8 19.1	<u>9</u>	11.1 12.7
	S.D.		3.5	16.6		4.7 23.5		2.6 16.5
	MDN.		10.0	12.0		12.0 7.5		12.0 8.0
19	MEAN	<u>6</u>	14.6	36.4			<u>6</u>	13.5 20.6
	S.D.		5.0	32.2				3.7 19.7
	MDN.		16.0	42.5				14.0 9.5

No developmental trend appeared on the time machine past or future extension data. About one-third of the subjects in each group have selected travel into the historical past, while about two-thirds selected to travel into the past in their own life time. None of the members of the black university 19 year old group have chosen to travel into the historical past. Even less subjects chose to travel into the future beyond their lifetime. Only about 10% picked a time range beyond the usual life-time.

## CONCLUSIONS

The various temporal perspective measures, used in the study, showed a great degree of within group variability, indicating that many other factors in addition to age, race, socio-economic class, and attendance of racially integrated and segregated schools determine a person's temporal extension, attitude toward time, and the personal importance of the three time divisions. One major finding of the study is that regardless of race, class, age, or type of school attended the great American Dream, a better and stronger future, is present in the life space of all groups studied. The oldest black group shows the same trend, but is less optimistic toward the future than the younger groups.

Another major finding obtained from the relative importance, attitude, and extension measures is that the black lower class boys studied tend to de-emphasize the past, feel that it is not only worse and weaker than the present and future, but also should be avoided, and act out the avoidance by a shorter span of personal extension of events into the past. Chances are that some of the poorer evaluation of the past is due to socio-economic class differences, since the 18 year old white lower class group evaluated the past as much worse than the same age white middle class group. Since personal past events are evaluated significantly worse by black lower class subjects who attend the same integrated schools as white lower class subjects, race is also a major factor in the poorer evaluation of the past.

Two major developmental trends were found: 1.) The extension of personal past significantly expands with the development, while the personal future extension showed no developmental changes due to a bimodal distribution of life-time and shorter future time spans. Lewin's hypotheses of an increase of both past and future horizons with age was confirmed only for the past, but not for the future. No significant developmental changes were obtained on the total personal extension and on the total extension measures derived from the stories. 2.) On the relative importance measures the future tense for more than half of the subjects appeared only at age 19 on the story completions, and the use of both past and present started at age 14; the younger age groups used either the past or present only, depending on the particular task.

Attendance of racially segregated and integrated schools did not relate to the time perspective variables.

There were no indications that interest in the historical past is a function of the variables studied. With the exception of the black 19 year old university group in which no one showed interest in the historical past, from about 15% to 30% of the subjects in each group indicated they would like to go back to a historical past time zone.

One finding, confirmed by a number of measures, is that the oldest black university attending group was much less optimistic about the present and the future than the other black groups studied.

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3.)

APPENDIX A  
SAMPLES OF INSTRUMENTS USED



## INTRODUCTORY REMARKS TO THE SUBJECT

The examiner will greet the subject and converse with him for a short period of time in order to get acquainted with him and to put him at ease in the test situation. The examiner will want to know the subject's name and age and might want to ask him about the type of things he is interested in doing, for example, with his friends or after school, etc.

The examiner will want to share with the subject, something concerning the nature of her visit. She might say something like the following:

Many of us who work in research, are interested in learning about young people today; how they think and feel about themselves and the world in which they live. We feel that one of the best ways to find out about young people, is to ask the young people themselves.

I will be asking you to do some things for me in the hour to come. And I will ask you some questions. There is no mark or grade for your answers. This is not really a test you see. There are no right or wrong answers to these questions. The only answers are your own opinions; whatever you think and feel.

None of what you say today will be told to your teacher or your parents, or the principal in such a way that you can be picked out or identified. In other words, the information you give me will be used for scientific purposes only. So just relax, get comfortable, and answer the questions as best you can. Do you understand? Do you have any questions? If you do, I'll tell you whatever I can. (Examiner answers whatever questions of the subject she can answer, without revealing the exact nature of the experiment.) Are you ready now? Okay. Here we go.

The examiner proceeds with the first task.

THEMATIC APPERCEPTION TEST

Before Card 1 is presented to the subject, the examiner will say,

I am going to show you a picture. I want you to look at the picture I show you and make up a story about it. In other words, use your imagination. You may say anything that comes to your mind while you look at the picture, as long as you present it in story form. Do you understand? Do you have any questions? (The examiner will answer the subject's questions concerning procedures.)

The examiner will then say, Are you ready? Alright. Here is the picture. Tell me a story about it.

The examiner will record, verbatim, whatever the subject tells in response to this picture.

After the subject has completed the story, the examiner will ask questions in order to clarify precisely the subject's conceptualizations about time. For example: How much time did the story take? (from beginning to end) or: How old was the boy when the story began (and ended)?

In addition, the examiner will try to ascertain the affective meaning the story holds for the youth. If the affective meaning is NOT OBVIOUS to the examiner, the examiner should inquire about it. For example: How do you feel about the way the story ended? Was it a good ending; a bad ending; or neither?

STORY COMPLETION TEST

The subject will be asked to complete two stories. The examiner will say:

I am going to begin telling you a story. I would like for you to finish the story for me. You are to use your imagination, that is, to say anything that you would like to say. Do you understand? Do you have any questions? (Pause) Alright. Here is the first story.

Story #1 At the dinner table, John and his sister... "

Story #2 In the locker room after gym class, David...

The examiner will then ask questions in order to obtain a clear understanding about time extension. For example: How much time did the story take (from beginning to end)? If future is given, for example: When will the story start? When will it end?

Story # 1

Story # 2

In addition, the examiner will try to ascertain the affective meaning the story holds for the youth. If the affective meaning is NOT OBVIOUS to the examiner, the examiner should inquire about it. For example: How do you feel about the way the story ended? Was it a good ending; a bad ending; or neither?

Story # 1

Story # 2

The examiner will then give the subject the booklet containing the semantic differential, events inventory, and the general information tasks.

The subject will answer the questions on the semantic differential and the events inventory tasks.

Before proceeding on to another task, the examiner, for each event listed, will ask how old the subject was or will be at that time, and whether it is a good or a bad event.

The examiner will then administer the Time Machine test to the subject.

Here is how you are to use these scales:

If you feel that your past is very closely related to one end of the scale, you should make your check mark as follows:

safe X : \_\_\_ : \_\_\_ : \_\_\_ : \_\_\_ : \_\_\_ : \_\_\_ unsafe

OR

safe \_\_\_ : \_\_\_ : \_\_\_ : \_\_\_ : \_\_\_ : \_\_\_ : X unsafe

If you feel that your past is quite closely related to one or the other end of the scale (but not extremely), you should place your checkmark as follows:

safe \_\_\_ : X : \_\_\_ : \_\_\_ : \_\_\_ : \_\_\_ : \_\_\_ unsafe

OR

safe \_\_\_ : \_\_\_ : \_\_\_ : \_\_\_ : X : \_\_\_ : \_\_\_ unsafe

If your past seems only slightly related to one side as opposed to the other side (but is not really neutral), then you should check as follows:

safe \_\_\_ : \_\_\_ : X : \_\_\_ : \_\_\_ : \_\_\_ : \_\_\_ unsafe

OR

safe \_\_\_ : \_\_\_ : \_\_\_ : \_\_\_ : X : \_\_\_ : \_\_\_ unsafe

The direction toward which you check, of course, depends upon which of the two ends of the scale seems most characteristic of your past.

If you consider your past to be neutral on the scale, both sides of the scale equally associated with the concept, then you should place the check mark in the middle space:

safe \_\_\_ : \_\_\_ : \_\_\_ : X : \_\_\_ : \_\_\_ : \_\_\_ unsafe

IMPORTANT: 1) Place your check marks in the middle of spaces:

THIS NOT THIS

\_\_\_ : X : \_\_\_ : \_\_\_ : \_\_\_ : X : \_\_\_

- 2) Be sure you check every scale for every concept, do not omit any.
- 3) Never put more than one check mark on a single scale.
- 4) Make every judgment independently of previous judgments.

MY PRESENT

Good \_\_\_ : \_\_\_ : \_\_\_ : \_\_\_ : \_\_\_ : \_\_\_ : \_\_\_ Bad

Soft \_\_\_ : \_\_\_ : \_\_\_ : \_\_\_ : \_\_\_ : \_\_\_ : \_\_\_ Hard

Fast \_\_\_ : \_\_\_ : \_\_\_ : \_\_\_ : \_\_\_ : \_\_\_ : \_\_\_ Slow

Ugly \_\_\_ : \_\_\_ : \_\_\_ : \_\_\_ : \_\_\_ : \_\_\_ : \_\_\_ Beautiful

Strong \_\_\_ : \_\_\_ : \_\_\_ : \_\_\_ : \_\_\_ : \_\_\_ : \_\_\_ Weak

Kind \_\_\_ : \_\_\_ : \_\_\_ : \_\_\_ : \_\_\_ : \_\_\_ : \_\_\_ Cruel

Passive \_\_\_ : \_\_\_ : \_\_\_ : \_\_\_ : \_\_\_ : \_\_\_ : \_\_\_ Active



EVENTS INVENTORY

List some events that happened to you in the far past (a long time ago).

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## THE TIME MACHINE

The examiner will say to the subject: Now, for a few moments, I want you to imagine that you are in a Time Machine, which is able to take you back into the past, beyond into the future or keep you in the present time.

The examiner will then ask the subject: Being in this Time Machine, how would you feel about going back in time and seeing your past?

Then, the examiner will ask the subject: How would you feel about going ahead in time and taking a look at your future?

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The examiner will then ask: How would you feel about staying in the present and look at what's happening to you now?

In order to determine the subject's preferred direction, the examiner will then ask: If you had a choice, would you prefer the Time Machine to take you into the past, keep you in the present or take you into the future? Why?

In order to determine the subject's preferred extension into the past and future, the examiner will then ask: How far back into YOUR past would you like to go?

Also, the examiner will say: How far ahead in YOUR future would you like to venture into?

APPENDIX B

RAW DATA

APPENDIX TABLE 1

RAW DATA FOR TAT, STORY 1, AND STORY 2 FOR SCHOOL #1 - BLACK

SUBJ. NO.	GRD.	AGE YR.MO:	HOME VALUE	TAT			STORY 1			AFFECT	STORY 2					
				EXTENSION			EXTENSION				EXTENSION					
				NO. PAST	NO. PRES.	NO. FUT.				AFFECT	NO. PAST	NO. PRES.	NO. FUT.			
1	6	11 3	----	7	0	0	6 HRS.	-	8	1	0	1 HR.	+	8	0	0
2	5	11 3	11,300	13	0	0	3 DAYS	+	17	1	0	5 DAYS	-	7	1	1
3	4	11 2	9,800	1	5	4	1 WK.	+	10	0	0	4 HRS.	+	3	0	1
4	4	11 2	12,200	3	13	1	4 YRS.	+	10	0	0	7 HRS.	+	7	1	0
5	4	11 3	10,500	5	0	0	18 YRS.	+	2	1	0	2 DAYS	-	2	0	0
6	5	11 2	11,700	1	6	1	2 YRS.	+	11	0	0	12 HRS.	+	8	1	0
7	5	11 0	11,300	5	2	0	30 SECS.	0	14	0	0	1 MIN.	+	6	0	0
8	4	11 10	11,300	2	0	0	30 MINS.	0	4	0	0	90 MINS.	0	3	0	0
9	4	11 0	9,800	0	7	0	15 DAYS	0	6	0	0	12 HRS.	+	7	0	0
10	4	11 8	----	1	5	0	15 MINS.	+	2	3	0	3 MINS.	+	5	1	0
11	5	10 6	16,600	1	7	1	5 MINS.	-	15	0	0	5 MINS.	-	6	3	0
12	5	11 0	12,300	0	3	0	30 SECS.	+	2	0	0	30 SECS.	+	2	0	0
13	5	11 2	11,700	0	6	0	5 MINS.	-	1	0	0	10 MINS.	+	1	0	0
14	6	11 6	10,400	0	10	0	90 SECS.	0	1	1	0	15 MINS.	+	4	0	0
15	5	11 0	10,400	1	5	0	30 SECS.	+	34	12	1	17 HRS.	+	41	5	4

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APPENDIX TABLE 1

RAW DATA FOR TAT, STORY 1, AND STORY 2 FOR SCHOOL #1 - BLACK

HOME VALUE	TAT EXTENSION				STORY 1 EXTENSION				STORY 2 EXTENSION			
	NO. PAST	NO. PRES.	NO. FUT.	AFFECT	NO. PAST	NO. PRES.	NO. FUT.	AFFECT	NO. PAST	NO. PRES.	NO. FUT.	AFFECT
-----	7	0	0	6 HRS. -	8	1	0	1 HR. +	8	0	0	75 MINS. +
11,300	13	0	0	3 DAYS +	17	1	0	5 DAYS -	7	1	1	3 DAYS 0
9,800	1	5	4	1 WK. +	10	0	0	4 HRS. +	3	0	1	7 HRS. 0
12,200	3	13	1	4 YRS. +	10	0	0	7 HRS. +	7	1	0	4 HRS. -
10,500	5	0	0	18 YRS. +	2	1	0	2 DAYS -	2	0	0	2 DAYS +
11,700	1	6	1	2 YRS. +	11	0	0	12 HRS. +	8	1	0	2 WKS. +
11,300	5	2	0	30 SECS. 0	14	0	0	1 MIN. +	6	0	0	1 MIN. +
11,300	2	0	0	30 MINS. 0	4	0	0	90 MINS. 0	3	0	0	2½ HRS. 0
9,800	0	7	0	15 DAYS 0	6	0	0	12 HRS. +	7	0	0	1 HR. 0
-----	1	5	0	15 MINS. +	2	3	0	3 MINS. +	5	1	0	10 MINS. +
16,600	1	7	1	5 MINS. -	15	0	0	5 MINS. -	6	3	0	15 MINS. 0
12,300	0	3	0	30 SECS. +	2	0	0	30 SECS. +	2	0	0	2½ MINS. 0
11,700	0	6	0	5 MINS. -	1	0	0	10 MINS. +	1	0	0	1 MIN. +
10,400	0	10	0	90 SECS. 0	1	1	0	15 MINS. +	4	0	0	35 MINS. -
10,400	1	5	0	30 SECS. +	34	12	1	17 HRS. +	41	5	4	3 DAYS 0

APPENDIX TABLE 2

RAW DATA FOR TAT, STORY 1, AND STORY 2 FOR SCHOOL #2 - BLACK

SUBJ. NO.	GRD.	AGE YR.MO.	HOME VALUE	TAT EXTENSION				STORY 1 EXTENSION				STORY 2 EXTENSION				
				NO. PAST	NO. PRES.	NO. FUT.	AFFECT	N. PAST	NO. PRES.	NO. FUT.	AFFECT	NO. PAST	NO. PRES.	NO. FUT.	AFFECT	
16	5	10 4	----	1	6	0	1 MIN.	-	10	2	0	2 MINS.	0	12	3	0
17	5	11 9	13,500	2	2	0	2 YRS.	0	5	0	0	1 WK.	+	0	5	1
18	5	12 5	10,700	0	4	0	1 HR.	-	2	0	0	15 MINS.	+	6	6	0
19	6	11 2	10,000	0	6	1	15 MINS.	+	10	1	0	5 MINS.	0	12	0	0
20	6	12 0	----	2	3	2	15 MINS.	+	6	1	0	1 HR.	+	11	0	0
21	6	11 6	11,300	0	7	1	1 HR.	0	3	5	0	5 HRS.	-	5	3	0
22	6	11 7	10,000	0	4	0	1 HR.	+	4	0	0	9½ HRS.	+	5	1	0
23	6	11 6	11,400	0	3	0	5 MINS.	+	10	2	1	1 HR.	+	7	0	0
24	6	11 8	11,600	0	4	0	20 MINS.	0	5	0	0	2 DAYS	0	3	0	0
25	6	11 6	11,400	1	6	2	52 YRS.	+	10	0	0	12 MINS.	+	24	0	0
26	6	12 4	----	0	3	0	3 HRS.	0	3	0	0	10 MINS.	+	1	1	0
27	6	12 7	----	0	2	1	1 MO.	+	5	0	0	15 HRS.	+	4	1	0
28	6	12 2	10,500	0	4	0	15 MINS.	+	2	0	0	5 MINS.	+	3	0	0
29	6	13 6	11,600	1	10	0	2 WKS.	+	10	1	0	30 MINS.	0	4	1	0



APPENDIX TABLE 2

RAW DATA FOR TAT, STORY 1, AND STORY 2 FOR SCHOOL #2 - BLACK

HOME VALUE	TAT EXTENSION			STORY 1 EXTENSION				STORY 2 EXTENSION							
	NO. PAST	NO. PRES.	NO. FUT.	AFFECT	NO. PAST	NO. PRES.	NO. FUT.	AFFECT	NO. PAST	NO. PRES.	NO. FUT.	AFFECT			
---	1	6	0	1 MIN.	-	10	2	0	2 MINS.	0	12	3	0	4 MINS.	+
,500	2	2	0	2 YRS.	0	5	0	0	1 WK.	+	0	5	1	1 DAY	+
,700	0	4	0	1 HR.	-	2	0	0	15 MINS.	+	6	6	0	1½ HR.	+
,000	0	6	1	15 MINS.	+	10	1	0	5 MINS.	0	12	0	0	1 DAY	+
---	2	3	2	15 MINS.	+	6	1	0	1 HR.	+	11	0	0	5 MINS.	-
300	0	7	1	1 HR.	0	3	5	0	5 HRS.	-	5	3	0	1½ HR.	+
000	0	4	0	1 HR.	+	4	0	0	9½ HRS.	+	5	1	0	20 MINS.	+
400	0	3	0	5 MINS.	+	10	2	1	1 FR.	+	7	0	0	35 MINS.	+
600	0	4	0	20 MINS.	0	5	0	0	2 DAYS	0	3	0	0	3 HRS.	+
400	1	6	2	52 YRS.	+	10	0	0	12 MINS.	+	24	0	0	3 WKS.	+
---	0	3	0	3 HRS.	0	3	0	0	10 MINS.	+	1	1	0	3 MINS.	0
---	0	2	1	1 MO.	+	5	0	0	15 HRS.	+	4	1	0	1 HR.	+
500	0	4	0	15 MINS.	+	2	0	0	5 MINS.	+	3	0	0	30 MINS.	0
600	1	10	0	2 WKS.	+	10	1	0	30 MINS.	0	4	1	0	1 HR.	0

APPENDIX TABLE 3

RAW DATA FOR TAT, STORY 1, AND STORY 2 FOR SCHOOL #3 - BLACK

SUBJ. NO.	GRD.	AGE YR.MO.	HOME VALUE	TAT				STORY 1				S		
				EXTENSION				EXTENSION						
				NO. PAST	NO. PRES.	NO. FUT.	AFFECT	NO. PAST	NO. PRES.	NO. FUT.	AFFECT	NO. PAST	NO. PRES.	NO. FUT.
30	7	13 7	10,900	6	0	0	20 MINS. -	6	1	0	2 DAYS +	9	0	0
31	7	13 4	12,600	0	3	0	1 HR. +	1	9	0	35 MINS. +	0	5	0
32	7	13 10	13,300	0	16	0	5 MINS. -	2	0	0	½ HR. 0	3	0	0
33	7	13 10	13,500	0	3	0	2 YRS. +	3	1	0	5 MINS. 0	2	0	0
34	7	13 2	15,200	0	4	0	10 MINS. +	1	0	0	15 MINS. 0	2	0	0
35	7	13 4	14,100	2	8	2	2 DAYS -	7	0	0	10 MINS. +	13	6	0
36	7	13 5	12,200	0	3	0	½ HR. 0	0	8	0	1½ HR. -	6	0	0
37	7	13 0	12,400	0	4	0	7 YRS. 0	2	0	0	1 HR. -	4	0	0
38	7	13 4	13,500	0	5	0	3 YRS. -	7	4	0	2 MINS. +	9	1	0
39	7	12 10	12,400	17	2	1	4½ WKS. +	13	3	0	20 YRS. +	32	3	0
40	7	13 2	10,400	0	3	1	5 MINS. 0	2	0	0	15 MINS. 0	2	0	0
41	7	13 3	----	0	2	0	5 MINS. +	1	0	0	15 MINS. 0	4	0	0
42	7	13 0	14,600	1	11	3	2 YRS. +	2	5	0	1½ HR. 0	7	2	0
43	7	13 10	12,400	0	4	1	1 DAY +	10	3	0	2 HRS. +	5	2	0

APPENDIX TABLE 3

DATA FOR TAT, STORY 1, AND STORY 2 FOR SCHOOL #3 - BLACK

TAT EXTENSION				STORY 1 EXTENSION				STORY 2 EXTENSION			
NO. PAST	NO. PRES.	NO. FUT.	AFFECT	NO. PAST	NO. PRES.	NO. FUT.	AFFECT	NO. PAST	NO. PRES.	NO. FUT.	AFFECT
6	0	0	20 MINS. -	6	1	0	2 DAYS +	9	0	0	2 DAYS +
0	3	0	1 HR. +	1	9	0	35 MINS. +	0	5	0	1 HR. 0
0	16	0	5 MINS. -	2	0	0	½ HR. 0	3	0	0	15 MINS. +
0	3	0	2 YRS. +	3	1	0	5 MINS. 0	2	0	0	10 MINS. -
0	4	0	10 MINS. +	1	0	0	15 MINS. 0	2	0	0	7 MINS. -
2	8	2	2 DAYS -	7	0	0	10 MINS. +	13	6	0	15 MINS. -
0	3	0	½ HR. 0	0	8	0	1½ HR. -	6	0	0	15 MINS. +
0	4	0	7 YRS. 0	2	0	0	1 HR. -	4	0	0	½ HR. +
0	5	0	3 YRS. -	7	4	0	2 MINS. +	9	1	0	1 MIN. +
17	2	1	4½ WKS. +	13	3	0	20 YRS. +	32	3	0	2 DAYS -
0	3	1	5 MINS. 0	2	0	0	15 MINS. 0	2	0	0	½ HR. -
0	2	0	5 MINS. +	1	0	0	15 MINS. 0	4	0	0	20 MINS. +
1	11	3	2 YRS. +	2	5	0	1½ HR. 0	7	2	0	45 MINS. 0
0	4	1	1 DAY +	10	3	0	2 HRS. +	5	2	0	15 MINS. 0

30

APPENDIX TABLE 4

RAW DATA FOR TAT, STORY 1, AND STORY 2 FOR SCHOOL #4 - BLACK

SUBJ. NO.	GRD.	AGE YR.	MO.	HOME VALUE	TAT EXTENSION				STORY 1 EXTENSION				STORY 2 EXTENSION						
					NO. PAST	NO. PRES.	NO. FUT.	AFFECT	NO. PAST	NO. PRES.	NO. FUT.	AFFECT	NO. PAST	NO. PRES.	NO. FUT.	AFFECT			
44	9B	14	5	13,300	0	5	0	1	HR.	-	4	0	0	10	MINS.	0	3	0	0
45	9A	14	3	11,600	1	6	2	3	MINS.	+	10	0	0	5	MINS.	+	4	0	0
46	9A	14	5	----	0	7	0	3	HRS.	-	---	---	---	-----			5	0	0
47	9B	14	7	11,100	0	2	1	30	MINS.	-	---	---	---	-----			6	0	0
48	8A	13	5	12,200	1	2	0	5	MINS.	-	1	0	0	15	MINS.	0	1	0	0
49	8	14	3	14,300	0	4	0	10	MINS.	-	2	0	0	15	MINS.	0	2	0	0
50	8B	13	7	12,200	8	4	2	1	DAY	+	---	---	---	-----			25	0	0
51	9A	15	0	13,300	0	4	0	20	MINS.	+	---	---	---	-----			10	4	1
52	9B	15	0	10,500	1	4	0	15	MINS.	+	2	0	0	1	HR.	+	2	0	0
53	9A	15	8	8,700	0	5	0	4	YRS.	+	1	0	0	15	MINS.	-	1	0	0
54	9A	14	5	12,100	0	7	0	10	HRS.	0	14	4	5	30	MINS.	+	13	0	0
55	9A	14	3	10,900	2	7	1	15	SECS.	-	8	1	0	30	MINS.	0	5	0	0
56	9A	14	5	13,300	0	3	4	10	YRS.	+	5	1	0	30	MINS.	-	3	3	0
57	9B	14	7	11,600	0	2	2	1	MIN.	+	6	0	0	1	MIN.	+	5	5	0

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APPENDIX TABLE 4

A FOR TAT, STORY 1, AND STORY 2 FOR SCHOOL #4 - BLACK

TAT					STORY 1					STORY 2				
EXTENSION					EXTENSION					EXTENSION				
NO. PAST	NO. PRES.	NO. FUT.		AFFECT	NO. PAST	NO. PRES.	NO. FUT.		AFFECT	NO. PAST	NO. PRES.	NO. FUT.		AFFECT
0	5	0	1 HR.	-	4	0	0	10 MINS.	0	3	0	0	30 MINS.	-
1	6	2	3 MINS.	+	10	0	0	5 MINS.	+	4	0	0	5 HRS.	0
0	7	0	3 HRS.	-	--	--	--	-----		5	0	0	5 MINS.	0
0	2	1	30 MINS.	-	--	--	--	-----		6	0	0	15 MINS.	+
1	2	0	5 MINS.	-	1	0	0	15 MINS.	0	1	0	0	15 MINS.	0
0	4	0	10 MINS.	-	2	0	0	15 MINS.	0	2	0	0	30 MINS.	0
8	4	2	1 DAY	+	--	--	--	-----		25	0	0	1½ DAY	+
0	4	0	20 MINS.	+	--	--	--	-----		10	4	1	4 HRS.	0
1	4	0	15 MINS.	+	2	0	0	1 HR.	+	2	0	0	3 MINS.	-
0	5	0	4 YRS.	+	1	0	0	15 MINS.	-	1	0	0	40 MINS.	0
0	7	0	10 HRS.	0	14	4	5	30 MINS.	+	13	0	0	2½ DAYS	+
2	7	1	15 SECS.	-	8	1	0	30 MINS.	0	5	0	0	10 MINS.	0
0	3	4	10 YRS.	+	5	1	0	30 MINS.	-	3	3	0	1 MIN.	0
0	2	2	1 MIN.	+	6	0	0	1 MIN.	+	5	5	0	1 MIN.	0

APPENDIX TABLE 5

RAW DATA FOR TAT, STORY 1, AND STORY 2 FOR SCHOOL #5 - BLACK

SUBJ. NO.	GRD.	AGE YR.MO.	HOME VALUE	TAT EXTENSION				STORY 1 EXTENSION				S				
				NO. PAST	NO. PRES.	NO. FUT.	AFFECT	NO. PAST	NO. PRES.	NO. FUT.	AFFECT					
58	12A	19 0	12,300	0	8	0	1½ HRS.	+	4	1	0	30 MINS.	+	5	1	0
59	12B	17 4	16,400	11	7	0	15 YRS.	+	19	4	0	2 WKS.	0	24	0	0
60	12A	18 0	11,100	1	7	0	2 HRS.	+	10	1	0	2 HRS.	-	15	1	0
61	12A	17 4	14,300	0	5	0	1 HR.	0	13	0	0	6½ HRS.	+	16	0	0
62	12B	17 0	13,000	1	8	1	5 YRS.	+	--	--	--	-----		9	0	0
63	12B	17 7	12,500	0	5	0	1 HR.	-	9	0	1	8 HRS.	+	6	0	1
64	11A	16 8	13,300	8	4	0	30 MINS.	+	15	5	3	1 HR.	-	9	0	0
65	12A	17 0	11,300	0	4	0	15 YRS.	+	2	0	0	8 HRS.	+	1	1	1
66	12A	17 6	-----	1	9	1	5 MINS.	-	--	--	--	-----		10	2	1
67	12A	17 5	11,800	0	6	0	15 YRS.	0	--	--	--	-----		14	0	0
68	12A	17 9	10,000	0	5	1	15 MINS.	+	3	1	0	25 MINS.	+	2	1	0
69	10B	16 6	14,300	1	1	0	1 HR.	+	--	--	--	-----		0	2	0
70	12A	18 0	14,800	1	9	2	4 YRS.	+	--	--	--	-----		15	1	0
71	12A	17 8	11,400	4	7	0	8 HRS.	0	--	--	--	-----		10	7	0

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APPENDIX TABLE 5

RAW DATA FOR TAT, STORY 1, AND STORY 2 FOR SCHOOL #5 - BLACK

NAME VALUE	TAT EXTENSION				STORY 1 EXTENSION				STORY 2 EXTENSION			
	NO. PAST	NO. PRES.	NO. FUT.	AFFECT	NO. PAST	NO. PRES.	NO. FUT.	AFFECT	NO. PAST	NO. PRES.	NO. FUT.	AFFECT
300	0	8	0	1½ HRS. +	4	1	0	30 MINS. +	5	1	0	10 MINS. +
400	11	7	0	15 YRS. +	19	4	0	2 WKS. 0	24	0	0	1 DAY 0
500	1	7	0	2 HRS. +	10	1	0	2 HRS. -	15	1	0	30 DAYS +
600	0	5	0	1 HR. 0	13	0	0	6½ HRS. +	16	0	0	70 YRS. +
700	1	8	1	5 YRS. +	--	--	--	-----	9	0	0	5 MINS. 0
800	0	5	0	1 HR. -	9	0	1	8 HRS. +	6	0	1	15 MINS. -
900	8	4	0	30 MINS. +	15	5	3	1 HR. -	9	0	0	8 DAYS +
1000	0	4	0	15 YRS. +	2	0	0	8 HRS. +	1	1	1	10 MINS. 0
1100	1	9	1	5 MINS. -	--	--	--	-----	10	2	1	25 YRS. +
1200	0	6	0	15 YRS. 0	--	--	--	-----	14	0	0	7 DAYS +
1300	0	5	1	15 MINS. +	3	1	0	25 MINS. +	2	1	0	5 MINS. +
1400	1	1	0	1 HR. +	--	--	--	-----	0	2	0	10 MINS. +
1500	1	9	2	4 YRS. +	--	--	--	-----	15	1	0	10 YRS. +
1600	4	7	0	8 HRS. 0	--	--	--	-----	10	7	0	4 HRS. 0

APPENDIX TABLE 6

RAW DATA FOR TAT, STORY 1, AND STORY 2 FOR SCHOOL #6 - BLACK

SUBJ. NO.	YR. IN COL.	AGE YR.MO.	HOME VALUE	TAT				STORY 1				S				
				EXTENSION				EXTENSION								
				NO. PAST	NO. PRES.	NO. FUT.	AFFECT	NO. PAST	NO. PRES.	NO. FUT.	AFFECT	NO. PAST	NO. PRES.	NO. FUT.		
72	1	17 4	----	4	5	0	20 MINS.	0	3	6	4	50 YRS.	+	5	10	0
73	2	18 9	----	21	0	1	20 YRS.	+	22	5	0	14 YRS.	0	19	3	0
74	1	19 8	----	3	8	8	16 YRS.	+	17	7	3	10 MINS.	-	41	3	2
75	1	20 1	----	1	4	1	2 MOS.	+	4	0	0	1 MO.	+	7	0	0
76	1	26 10	----	6	3	0	19 YRS.	+	1	7	0	3 YRS.	+	1	4	0
77	2	19 1	----	0	2	0	20 SECS.	+	3	0	0	1/2 HR.	0	3	0	0
78	1	18 8	----	3	12	2	1 HR.	-	3	1	0	30 MINS.	+	15	27	2
79	1	18 0	----	3	10	3	1 HR.	0	1	1	1	4 WKS.	+	1	0	2
80	1	19 3	----	0	5	1	25 MINS.	-	4	0	0	9 MINS.	0	1	0	1
81	2	18 9	----	1	11	7	5 YRS.	0	6	12	0	4 MINS.	+	1	31	1
82	2	19 7	----	0	7	1	4 SECS.	+	11	0	3	2 YRS.	+	14	0	0
83	1	21 11	----	0	7	1	14 YRS.	+	9	1	0	26 HRS.	+	6	5	0

6.1

6.2



APPENDIX TABLE 6

DATA FOR TAT, STORY 1, AND STORY 2 FOR SCHOOL #6 - BLACK

TAT EXTENSION				STORY 1 EXTENSION				STORY 2 EXTENSION						
NO. PAST	NO. PRES.	NO. FUT.	AFFECT	NO. PAST	NO. PRES.	NO. FUT.	AFFECT	NO. PAST	NO. PRES.	NO. FUT.	AFFECT			
4	5	0	20 MINS.	0	3	6	4	50 YRS.	+	5	10	0	45 MINS.	+
21	0	1	20 YRS.	+	22	5	0	14 YRS.	0	19	3	0	5 WKS.	-
3	8	8	16 YRS.	+	17	7	3	10 MINS.	-	41	3	2	10 MINS.	+
1	4	1	2 MOS.	+	4	0	0	1 MO.	+	7	0	0	1 DAY	0
6	3	0	19 YRS.	+	1	7	0	3 YRS.	+	1	4	0	1½ MO.	0
0	2	0	20 SECS.	+	3	0	0	½ HR.	0	3	0	0	10 MINS.	0
3	12	2	1 HR.	-	3	1	0	30 MINS.	+	15	27	2	4 HRS.	+
3	10	3	1 HR.	0	1	1	1	4 WKS.	+	1	0	2	6 MOS.	0
0	5	1	25 MINS.	-	4	0	0	9 MINS.	0	1	0	1	6 MINS.	+
1	11	7	5 YRS.	0	6	12	0	4 MINS.	+	1	31	1	28 HRS.	+
0	7	1	4 SECS.	+	11	0	3	2 YRS.	+	14	0	0	2 WKS.	+
0	7	1	14 YRS.	+	9	1	0	26 HRS.	+	6	5	0	4 MOS.	0

APPENDIX TABLE 7

RAW DATA FOR TAT, STORY 1, AND STORY 2 FOR SCHOOL #4 - WHITE

SUBJ. NO.	GRD.	AGE YR.	MO.	HOME VALUE	TAT EXTENSION				STORY 1 EXTENSION				STORY 2 EXTENSION				
					NO. PAST	NO. PRES.	NO. FUT.	AFFECT	NO. PAST	NO. PRES.	NO. FUT.	AFFECT		NO. PAST	NO. PRES.	NO. FUT.	
84	9A	16	1	7,900	0	6	0	.1 HR.	+	3	0	0	7 MINS.	+	1	0	0
85	9A	15	3	10,700	8	3	1	3 DAYS	+	6	0	0	2 DAYS	+	20	0	1
86	9A	16	2	8,100	0	4	1	3 YEARS	-	3	0	1	10 MINS.	0	3	0	0
87	-	-	-	-	0	6	0	45 MINS.	-	-	-	-	-	-	9	3	0
88	8	15	10	9,300	0	4	1	3 MINS.	0	2	0	0	2 HRS.	0	1	0	0
89	9B	14	10	9,700	3	6	0	½ HR.	-	-	-	-	-	-	60	4	3
90	8	15	9	7,900	0	4	0	1 DAY	+	9	0	0	½ HR.	+	12	0	0
91	8A	14	6	9,700	1	13	1	2 HRS.	-	5	8	2	½ DAY	+	5	1	2
92	9A	14	5	10,600	11	2	1	2 DAYS	+	-	-	-	-	-	9	1	0
93	9A	14	8	12,100	1	9	1	3 MOS.	-	3	4	0	½ DAY	+	2	0	0
94	9B	14	10	15,500	0	6	1	10 MINS.	+	1	0	1	1 DAY	+	4	1	0
95	9A	15	1	10,300	0	9	0	15 MINS.	-	-	-	-	-	-	11	0	0
96	9A	14	5	11,400	0	3	0	2 DAYS	-	7	0	0	15 MINS.	+	5	0	0
97	9A	15	1	10,600	0	4	0	2 HRS.	-	0	7	1	3 YRS.	-	0	6	0
98	8	15	4	15,100	0	7	1	11 YRS.	+	4	0	0	½ DAY	+	7	0	0

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APPENDIX TABLE 7

FOR TAT, STORY 1, AND STORY 2 FOR SCHOOL #6 - WHITE

			TAT EXTENSION				STORY 1 EXTENSION				STORY 2 EXTENSION					
NO. PAST	NO. PRES.	NO. FUT.	AFFECT	NO. PAST	NO. PRES.	NO. FUT.	AFFECT	NO. PAST	NO. PRES.	NO. FUT.	AFFECT	NO. PAST	NO. PRES.	NO. FUT.	AFFECT	
0	6	0	.1 HR.	+	3	0	0	7	MINS.	+	1	0	0	5	MINS.	+
8	3	1	3 DAYS	+	6	0	0	2	DAYS	+	20	0	1	2	DAYS	+
0	4	1	3 YEARS		3	0	1	10	MINS.	0	3	0	0	60	MINS.	0
0	6	0	45 MINS.	-	---	---	---	---	---	---	9	3	0	2	WKS.	-
0	4	1	3 MINS.	0	2	0	0	2	HRS.	0	1	0	0	50	MINS.	0
3	6	0	$\frac{1}{2}$ HR.	-	---	---	---	---	---	---	60	4	3	1	WK.	+
0	4	0	1 DAY	+	9	0	0	$\frac{1}{2}$ HR.	+	12	0	0	1	DAY	0	
1	13	1	2 HRS.	-	5	8	2	$\frac{1}{2}$ DAY	+	5	1	2	3	HRS.	0	
1	2	1	2 DAYS	+	---	---	---	---	---	---	9	1	0	$\frac{1}{2}$ HR.	+	
1	9	1	3 MOS.	-	3	4	0	$\frac{1}{2}$ DAY	+	2	0	0	1	HR.	0	
0	6	1	10 MINS.	+	1	0	1	1 DAY	+	4	1	0	4	MINS.	+	
0	9	0	15 MINS.	-	---	---	---	---	---	---	11	0	0	20	MINS.	+
0	3	0	2 DAYS	-	7	0	0	15 MINS.	+	5	0	0	1	DAY	+	
0	4	0	2 HRS.	-	0	7	1	3 YRS.	-	0	6	0	5	MO.	+	
0	7	1	1 $\frac{1}{2}$ YRS.	+	4	0	0	$\frac{1}{2}$ DAY	+	7	0	0	20	MTNS.	+	

APPENDIX TABLE 8

RAW DATA FOR TAT, STORY 1, AND STORY 2 FOR SCHOOL #5 - WHITE

SUBJ. NO.	GRD.	AGE YR.	AGE MO.	HOME VALUE	TAT				STORY 1				S					
					EXTENSION		EXTENSION		EXTENSION		EXTENSION							
					NO. PAST	NO. PRES.	NO. FUT.		AFFECT	NO. PAST	NO. PRES.	NO. FUT.		AFFECT	NO. PAST	NO. PRES.	NO. FUT.	
99	12A	17	7	----	11	0	0	3	YRS.	-	--	--	--	•-----	15	2	1	
100	12A	17	7	9,200	0	3	1	15	MINS.	0	1	0	0	½ HR.	0	2	0	0
101	12A	18	2	13,200	0	5	1	4	YRS.	0	--	--	--	-----	0	9	2	
102	12A	17	9	10,300	0	4	1	1	MO.	-	--	--	--	-----	14	0	0	
103	12A	19	8	21,400	0	3	2	½	HR.	0	--	--	--	-----	2	0	0	
104	12A	18	9	9,300	0	3	1	½	HR.	0	4	1	0	3 MINS.	-	5	0	0
105	12A	18	10	11,200	2	2	0	1	HR.	+	1	0	0	15 MINS.	0	1	1	0
106	12A	18	0	10,300	0	1	4	20	YRS.	+	4	1	0	10 MINS.	0	5	0	0
107	12A	19	1	10,300	0	1	0	1	MIN.	0	4	0	0	15 MINS.	0	2	1	0
108	12A	18	7	9,000	5	3	0	1	YR.	+	4	0	0	½ HR.	-	6	0	0
109	12B	17	1	14,800	1	7	0	½	HR.	+	7	0	1	5½ YRS.	+	6	3	0
110	12A	18	11	11,600	0	5	0	1	HR.	+	--	--	--	-----	4	2	1	
111	12A	17	5	11,100	13	6	1	1	YR.	+	--	--	--	-----	36	7	0	
112	11A	17	2	15,500	1	5	1	1	DAY	+	--	--	--	-----	2	0	0	
113	12A	18	9	8,700	0	5	0	14	YRS.	+	--	--	--	-----	5	1	0	

APPENDIX TABLE 8

FOR TAT, STORY 1, AND STORY 2 FOR SCHOOL #5 - WHITE

TAT EXTENSION				STORY 1 EXTENSION				STORY 2 EXTENSION			
NO. PAST	NO. PRES.	NO. FUT.	AFFECT	NO. PAST	NO. PRES.	NO. FUT.	AFFECT	NO. PAST	NO. PRES.	NO. FUT.	AFFECT
1	0	0	3 YRS. -	--	--	--	-----	15	2	1	6½ WKS. -
0	3	1	15 MINS. 0	1	0	0	½ HR. 0	2	0	0	5 MINS. 0
0	5	1	4 YRS. 0	--	--	--	-----	0	9	2	3 MOS. +
0	4	1	1 MO. -	---	---	---	-----	14	0	0	2 DAYS +
0	3	2	½ HR. 0	--	--	--	-----	2	0	0	20 MINS. 0
0	3	1	½ HR. 0	4	1	0	3 MINS. -	5	0	0	2 DAYS 0
2	2	0	1 HR. +	1	0	0	15 MINS. 0	1	1	0	10 MINS. 0
0	1	4	20 YRS. +	4	1	0	10 MINS. 0	5	0	0	10 MINS. 0
0	1	0	1 MIN. 0	4	0	0	15 MINS. 0	2	1	0	2 MINS. 0
5	3	0	1 YR. +	4	0	0	½ HR. -	6	0	0	2½ HRS. -
1	7	0	½ HR. +	7	0	1	5½ YRS. +	6	3	0	3 DAYS -
0	5	0	1 HR. +	--	---	---	-----	4	2	1	6 YRS. +
3	6	1	1 YR. +	--	---	---	-----	36	7	0	3 MOS. -
1	5	1	1 DAY +	--	---	---	-----	2	0	0	5 MINS. -
0	5	0	14 YRS. +	--	---	---	-----	5	1	0	1 DAY +

APPENDIX TABLE 9

RAW DATA FOR TAT, STORY 1, AND STORY 2 FOR SCHOOL #7 - WHITE

SUBJ. NO.	GRD.	AGE YR. MO.	HOME VALUE	TAT EXTENSION				STORY 1 EXTENSION				STORY 2				
				NO. PAST	NO. PRES.	NO. FUT.	AFFECT	NO. PAST	NO. PRES.	NO. FUT.	AFFECT	NO. PAST	NO. PRES.	NO. FUT.		
114	5	11 4	16,500	1	17	4	6 YRS.	+	18	1	1	110 MINS.	+	28	0	1
115	5	11 7	16,200	7	0	1	5 MINS.	+	10	1	0	4 HRS.	+	16	0	0
116	6	11 7	20,600	0	5	0	1 HR.	0	4	0	5	1 HR.	0	7	0	1
117	6	11 10	20,600	10	0	0	99 YRS.	-	7	0	0	1 WK.	+	9	0	1
118	5	10 11	20,800	6	0	0	1 DAY	+	11	0	0	3 DAYS	+	11	0	0
119	5	11 4	16,400	0	3	0	15 MINS.	0	1	0	0	½ HR.	0	1	1	0
120	5	11 5	16,600	0	8	1	20 YRS.	+	21	0	1	25 MINS.	+	5	0	13
121	6	11 6	17,300	9	1	0	1 HR.	+	6	1	1	10 MINS.	0	7	0	0
122	6	11 9	16,000	12	5	2	1 DAY	-	4	1	0	½ HR.	0	1	5	0
123	5	11 2	20,600	6	9	1	2½ YRS.	+	22	10	0	½ HR.	+	37	3	3
124	6	12 0	17,400	1	3	0	15 MINS.	-	1	0	0	½ HR.	0	2	0	0
125	5	11 3	16,000	2	7	0	1 HR.	-	16	1	1	3 DAYS	+	16	0	2
126	6	11 7	16,000	0	5	0	3 HRS.	-	4	0	0	1½ HRS.	0	1	2	0
127	4	12 0	20,200	4	0	0	1 HR.	-	3	0	0	1 HR.	+	4	1	0
128	4	11 6	----	0	4	0	2 HR.	-	1	0	0	1 HR.	0	2	0	0

APPENDIX TABLE 9

TAT, STORY 1, AND STORY 2 FOR SCHOOL #7 - WHITE

TAT EXTENSION				STORY 1 EXTENSION				STORY 2 EXTENSION					
NO. FUT.		AFFECT		NO. PAST	NO. PRES.	NO. FUT.	AFFECT	NO. PAST	NO. PRES.	NO. FUT.	AFFECT		
4	6 YRS.	+		18	1	1	110 MINS.	+	28	0	1	1½ HR.	0
1	5 MINS.	+		10	1	0	4 HRS.	+	16	0	0	8 HRS.	+
0	1 HR.	0		4	0	5	1 HR.	0	7	0	1	2 HRS.	+
0	99 YRS.	-		7	0	0	1 WK.	+	9	0	1	3 HRS.	-
0	1 DAY	+		11	0	0	3 DAYS	+	11	0	0	2 WKS.	-
0	15 MINS.	0		1	0	0	½ HR.	0	1	1	0	5 MINS.	0
1	20 YRS.	+		21	0	1	25 MINS.	+	5	0	13	1½ DAY	+
0	1 HR.	+		6	1	1	10 MINS.	0	7	0	0	6 HRS.	+
2	1 DAY	-		4	1	0	½ HR.	0	1	5	0	3½ HRS.	+
1	2½ YRS.	+		22	10	0	½ HR.	+	37	3	3	4 YRS.	+
0	15 MINS.	-		1	0	0	½ HR.	0	2	0	0	15 MINS.	0
0	1 HR.	-		16	1	1	3 DAYS	+	16	0	2	1½ WKS.	+
0	3 HRS.	-		4	0	0	1½ HRS.	0	1	2	0	25 MINS.	0
0	1 HR.	-		3	0	0	1 HR.	+	4	1	0	1½ HR.	+
0	½ HR.	-		1	0	0	1 HR.	0	2	0	0	10 MINS.	+

APPENDIX TABLE 10

RAW DATA FOR TAT, STORY 1, AND STORY 2 FOR SCHOOL #8 - WHITE

SUBJ. NO.	GRD.	AGE YR.	MO.	HOME VALUE	TAT EXTENSION				STORY 1 EXTENSION				STORY 2 EXTENSION				
					NO. PAST	NO. PRES.	NO. FUT.	AFFECT	NO. PAST	NO. PRES.	NO. FUT.	AFFECT	NO. PAST	NO. PRES.	NO. FUT.		
129	8	13	6	16,400	0	6	1	3 MINS.	-	1	0	0	3 MINS.	-	2	0	0
130	8	13	4	16,800	4	0	1	43 YRS.	+	10	0	0	70 YRS.	+	9	0	0
131	8A	14	0	17,300	0	3	0	1 DAY	0	2	0	0	1 DAY	-	1	0	0
132	8A	13	10	16,400	5	0	0	7 YRS.	+	6	3	0	1 HR.	0	7	0	0
133	8A	13	9	15,700	18	1	0	3½ YRS.	0	14	0	1	2 WKS.	0	6	2	0
134	8A	13	11	19,500	8	0	0	2 YRS.	+	8	0	0	1½ DAY	-	5	0	0
135	8A	13	8	16,100	3	2	0	6 MOS.	0	4	0	0	1 DAY	+	4	0	0
136	8A	13	9	16,500	1	3	1	64 YRS.	+	7	1	1	2 DAYS	0	12	1	0
137	8	13	5	14,700	0	5	0	2 WKS.	-	2	0	0	10 MINS.	-	--	--	--
138	8	13	8	15,800	8	0	0	3 MOS.	-	10	4	0	½ DAY	0	31	16	2
139	8	13	7	17,400	8	1	1	9 YRS.	-	6	0	4	1 WK.	+	37	0	8
140	8A	13	9	15,400	4	0	0	1 YRS.	+	13	0	0	5 MOS.	0	10	0	0
141	8A	13	9	15,600	15	0	0	1½ MOS.	+	19	2	0	55 YRS.	+	27	2	1
142	8A	13	9	18,400	1	3	1	½ HR.	-	6	0	0	1 DAY	+	11	0	0
143	8A	14	3	20,400	1	24	0	3 YRS.	+	16	4	1	3 DAY	0	31	1	3



APPENDIX TABLE 10

DATA FOR TAT, STORY 1, AND STORY 2 FOR SCHOOL #8 - WHITE

TAT EXTENSION				STORY 1 EXTENSION				STORY 2 EXTENSION								
NO. PAST	NO. PRES.	NO. FUT.	AFFECT	NO. PAST	NO. PRES.	NO. FUT.	AFFECT	NO. PAST	NO. PRES.	NO. FUT.	AFFECT					
0	6	1	3 MINS.	-	1	0	0	3	MINS.	-	2	0	0	5	MINS.	0
4	0	1	43 YRS.	+	10	0	0	70	YRS.	+	9	0	0	5	YRS.	+
0	3	0	1 DAY	0	2	0	0	1	DAY	-	1	0	0	30	MINS.	+
5	0	0	7 YRS.	+	6	3	0	1	HR.	0	7	0	0	1	WK.	-
18	1	0	3½ YRS.	0	14	0	1	2	WKS.	0	6	2	0	2	DAYS	+
8	0	0	2 YRS.	+	8	0	0	1½	DAY	-	5	0	0	1	MO.	+
3	2	0	6 MOS.	0	4	0	0	1	DAY	+	4	0	0	5	MINS.	-
1	3	1	64 YRS.	-	7	1	1	2	DAYS	0	12	1	0	4	DAYS	-
0	5	0	2 WKS.	-	2	0	0	10	MINS.	-	--	--	--	----		
8	0	0	3 MOS.	-	10	4	0	½	DAY	0	31	16	2	1½	WK.	+
8	1	1	9 YRS.	-	6	0	4	1	WK.	+	37	0	8	3	DAYS	0
4	0	0	1 YRS.	+	13	0	0	5	MOS.	0	10	0	0	2	MOS.	+
15	0	0	1½ MOS.	+	19	2	0	55	YRS.	+	27	2	1	1½	DAY	-
1	3	(1)	½ HR.	-	6	0	0	1	DAY	+	11	0	0	2	HRS.	0
1	24	0	3 YRS.	+	16	4	1	3	DAY	0	31	1	3	3	DAYS	-

APPENDIX TABLE 11

RAW DATA FOR TAT, STORY 1, AND STORY 2 FOR SCHOOL #9 - WHITE

SUBJ. NO.	GRD.	AGE YR. MO.	HOME VALUE	TAT				STORY 1				STORY 2				
				EXTENSION				EXTENSION								
				NO. PAST	NO. PRELs.	NO. FUT.	AFFECT	NO. PAST	NO. PRES.	NO. FUT.	AFFECT	NO. PAST	NO. PRES.	NO. FUT.		
144	10A	15 7	16,600	0	7	2	12 YRS.	0	6	1	2	2 WKS.	+	12	2	1
145	10A	15 8	16,300	2	4	4	3 YRS.	-	0	1	0	45 MINS.	0	6	0	0
146	10A	15 11	15,600	0	9	0	2 WKS.	+	2	16	0	2 YRS.	-	7	3	0
147	10A	15 6	15,800	6	0	1	2 YRS.	+	11	0	0	2 WKS.	-	3	0	0
148	10B	15 6	16,800	5	24	0	15 YRS.	+	23	0	2	12 HRS.	0	31	5	0
149	10A	15 7	16,500	1	6	2	2 MOS.	+	12	0	0	2 DAYS	-	9	0	0
150	10A	15 6	15,200	1	4	2	12 YRS.	+	6	1	0	½ HR.	-	6	0	0
151	10A	15 9	19,900	2	8	6	1½ MIN.	-	18	7	4	2 WKS.	-	33	1	0
152	10B	15 2	16,000	100	46	7	28 YRS.	+	8	4	1	2 MOS.	+	0	17	0
153	10B	15 1	15,800	6	16	0	14 YRS.	+	11	1	0	3 DAYS	+	9	0	2
154	10A	15 4	16,300	17	0	0	3 WKS.	+	1	0	0	10 MINS.	+	2	0	0
155	10A	15 10	14,000	0	8	1	25 YRS.	+	2	0	0	½ HR.	-	1	0	0
156	10B	15 4	16,600	0	4	0	10 MINS.	+	2	5	3	1½ HR.	+	3	0	0
157	10A	15 8	19,600	1	1	1	3 MINS.	0	0	3	0	2 MINS.	0	4	10	0

APPENDIX TABLE 11

FOR TAT, STORY 1, AND STORY 2 FOR SCHOOL #9 - WHITE

			TAT EXTENSION				STORY 1 EXTENSION				STORY 2 EXTENSION				
NO. PAST	NO. PRES.	NO. FUT.	AFFECT	NO. PAST	NO. PRES.	NO. FUT.	AFFECT	NO. PAST	NO. PRES.	NO. FUT.	AFFECT	NO. PAST	NO. PRES.	NO. FUT.	AFFECT
0	7	2	12 YRS.	0	6	1	2	2 WKS.	+	12	2	1	1	DAY	-
2	4	4	3 YRS.	-	0	1	0	45 MINS.	0	6	0	0	1	WK.	+
0	9	0	2 WKS.	+	2	16	0	2 YRS.	-	7	3	0	2	HRS.	-
6	0	1	2 YRS.	+	11	0	0	2 WKS.	-	3	0	0	5	MINS.	+
5	24	0	15 YRS.	+	23	0	2	12 HRS.	0	31	5	0	15	MINS.	+
1	6	2	2 MOS.	+	12	0	0	2 DAYS	-	9	0	0	2	HRS.	+
1	4	2	12 YRS.	+	6	1	0	½ HR.	-	6	0	0	1	WK.	-
2	8	6	1½ MIN.	-	18	7	4	2 WKS.	-	33	1	0	½ HR.	-	-
0	46	7	28 YRS.	+	8	4	1	2 MOS.	+	0	17	0	3	YRS.	0
6	16	0	14 YRS.	+	11	1	0	3 DAYS	+	9	0	2	2	DAYS	-
7	0	0	3 WKS.	+	1	0	0	10 MINS.	+	2	0	0	2	MINS.	+
0	8	1	25 YRS.	+	2	0	0	½ HR.	-	1	0	0	15	MINS.	0
0	4	0	10 MINS.	+	2	5	3	1½ HR.	+	3	0	0	2	DAYS	-
1	1	1	3 MINS.	0	0	3	0	2 MINS.	0	4	10	0	2	DAYS	+

APPENDIX TABLE 12

RAW DATA FOR TAT, STORY 1, AND STORY 2 FOR SCHOOL #9 - WHITE

SUBJ. NO.	GRD.	AGE YR.MO.	HOME VALUE	TAT			TAT EXTENSION	AFFECT	STORY 1			STORY 1 EXTENSION	AFFECT	STORY 2		
				NO. PAST	NO. PRES.	NO. FUT.			NO. PAST	NO. PRES.	NO. FUT.			NO. PAST	NO. PRES.	NO. FUT.
158	11A	17 4	----	0	4	0	½ HR.	0	2	1	0	5 MINS.	0	1	0	0
159	12A	17 6	16,400	7	5	0	2 WKS.	-	13	0	1	1 WK.	+	9	2	0
160	12B	16 11	16,900	0	4	0	10 MINS.	+	3	0	0	1 WK.	0	3	3	0
161	12A	17 4	12,300	9	1	1	10 YRS.	0	13	1	3	2 WKS.	+	11	3	1
162	11A	17 10	22,700	1	1	0	45 MINS.	0	2	0	0	5 MINS.	+	5	0	0
163	12A	17 6	17,600	0	11	0	45 MINS.	0	12	1	0	1 DAY	-	19	1	0
164	12B	17 2	16,400	0	8	1	2 MINS.	-	1	0	0	20 MINS.	0	2	0	0
165	12A	17 5	16,000	1	4	4	18 YRS.	+	1	6	2	5 MOS.	+	9	0	1
166	12A	17 8	18,000	0	10	2	1½ HR.	+	8	1	0	45 MINS.	+	12	1	1
167	12A	18 4	18,300	0	3	1	22 YRS.	+	1	0	0	½ HR.	+	11	2	1
168	12A	17 7	16,600	12	3	1	22 YRS.	+	11	4	2	50 MINS.	+	27	0	0
169	12A	17 11	15,400	5	1	3	2 DAYS	+	11	0	1	1 DAY	0	13	0	0
170	12A	17 7	15,500	1	12	1	3 DAYS	+	2	0	0	1 DAY	0	3	4	0
171	11A	17 3	15,400	0	3	0	15 YRS.	+	9	0	0	½ DAY	+	15	1	1

APPENDIX TABLE 12

A FOR TAT, STORY 1, AND STORY 2 FOR SCHOOL #9 - WHITE

TAT				STORY 1				STORY 2			
EXTENSION				EXTENSION				EXTENSION			
NO. PAST	NO. PRES.	NO. FUT.	AFFECT	NO. PAST	NO. PRES.	NO. FUT.	AFFECT	NO. PAST	NO. PRES.	NO. FUT.	AFFECT
0	4	0	½ HR. 0	2	1	0	5 MINS. 0	1	0	0	1 MINS. 0
7	5	0	2 WKS. -	13	0	1	1 WK. +	9	2	0	10 MINS. -
0	4	0	10 MINS. +	3	0	0	1 WK. 0	3	3	0	½ DAY 0
9	1	1	10 YRS. 0	13	1	3	2 WKS. +	11	3	1	3 MINS. -
1	1	0	45 MINS. 0	2	0	0	5 MINS. +	5	0	0	10 MINS. -
0	11	0	45 MINS. 0	12	1	0	1 DAY -	19	1	0	1 DAY +
0	8	1	2 MINS. -	1	0	0	20 MINS. 0	2	0	0	10 MINS. 0
1	4	4	18 YRS. +	1	6	2	5 MOS. +	9	0	1	46 YRS. +
0	10	2	1½ HR. +	8	1	0	45 MINS. +	12	1	1	2 HRS. 0
0	3	1	22 YRS. +	1	0	0	½ HR. +	11	2	1	2 HRS. +
12	3	1	22 YRS. +	11	4	2	50 MINS. +	27	0	0	1 DAY +
5	1	3	2 DAYS +	11	0	1	1 DAY 0	13	0	0	1 DAY 0
1	12	1	3 DAYS +	2	0	0	1 DAY 0	3	4	0	2 WKS. +
0	3	0	15 YRS. +	9	0	0	½ DAY +	15	1	1	20 MINS. 0

APPENDIX TABLE 13

RAW DATA FOR TAT, STCRY 1, AND STORY 2 FOR SCHOOL #6 - WHITE

SUBJ. NO.	YR. IN COL.	AGE YR.MO.	HOME VALUE	TAT				STORY 1				S		
				EXTENSION				EXTENSION						
				NO. PAST	NO. PRES	NO. FUT.	AFFECT	NO. PAST	NO. PRES.	NO. FUT.	AFFECT	NO. PAST	NO. PRES.	NO. FUT.
172	1	18 4	----	4	5	0	½ HR. 0	5	0	0	12 YRS. -	7	1	0
173	1	18 11	----	4	2	1	1 YR. -	7	1	2	5 MINS. 0	2	0	0
174	1	20 6	----	1	6	0	5 MINS. 0	4	0	2	5 HRS. 0	4	0	1
175	2	18 11	----	6	2	2	1 WK. 0	17	0	1	15 MINS. 0	19	2	2
176	1	18 2	----	14	2	4	2½ HRS. -	13	1	2	48 HRS. 0	15	3	0
177	3	20 4	----	1	6	1	1 HR. -	9	2	0	15 MINS. +	11	0	0
178	1	18 4	----	2	8	1	9 YRS. 0	2	11	2	3 DAYS +	5	0	3
179	1	18 7	----	1	12	2	20 MINS. 0	21	0	2	1 DAY +	18	0	1
180	1	18 9	----	1	7	2	1 HR. -	5	1	2	3 HRS. -	5	4	1
181	1	18 10	----	1	13	0	2 HRS. 0	2	0	0	15 MINS. +	4	0	0
182	4	23 0	----	2	8	0	15 MINS. -	1	0	1	10 MINS. -	3	0	0
183	2	18 0	----	1	14	1	6 HRS. 0	9	2	0	15 YRS. -	16	3	2
184	-	21 -	----	0	3	2	10 MINS. +	3	1	0	20 MINS. 0	9	0	0
185	1	18 4	----	0	6	0	10 MINS. +	3	1	0	3 MINS. +	1	1	0

APPENDIX TABLE 13

TAT FOR TAT, STORY 1, AND STORY 2 FOR SCHOOL #6 - WHITE

TAT EXTENSION				STORY 1 EXTENSION				STORY 2 EXTENSION			
NO. PAST	NO. PRES.	NO. FUT.	AFFECT	NO. PAST	NO. PRES.	NO. FUT.	AFFECT	NO. PAST	NO. PRES.	NO. FUT.	AFFECT
4	5	0	½ HR. 0	5	0	0	12 YRS. -	7	1	0	1½ HR. +
4	2	1	1 YR. -	7	1	2	5 MINS. 0	2	0	0	10 MINS. -
1	6	0	5 MINS. 0	4	0	2	5 HRS. 0	4	0	1	5 MINS. +
6	2	2	1 WK. 0	17	0	1	15 MINS. 0	19	2	2	10 MINS. +
14	2	4	2½ HRS. -	13	1	2	48 HRS. 0	15	3	0	14 SECS. -
1	6	1	1 HR. -	9	2	0	15 MINS. +	11	0	0	5 MINS. -
2	8	1	9 YRS. 0	2	11	2	3 DAYS +	5	0	3	1 DAY +
1	12	2	20 MINS. 0	21	0	2	1 DAY +	18	0	1	30 MINS. 0
1	7	2	1 HR. -	5	1	2	3 HRS. -	5	4	1	1 MO. -
1	13	0	2 HRS. 0	2	0	0	15 MINS. +	4	0	0	20 MINS. +
2	8	0	15 MINS. -	1	0	1	10 MINS. -	3	0	0	5 MINS. -
1	14	1	6 HRS. 0	9	2	0	15 YRS. -	16	3	2	5 MINS. 0
0	3	2	10 MINS. +	3	1	0	20 MINS. 0	9	0	0	5 MINS. 0
0	6	0	10 MINS. +	3	1	0	3 MINS. +	1	1	0	10 MINS. +

APPENDIX TABLE 14

## RAW DATA FOR EVENTS FOR SCHOOL #1 - BLACK

SUBJ. NO.	FAR PAST				NEAR PAST				EVENTS PRESENT				NEAR FUTURE				FAR	
	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT
1	6	+	4	5	7	+	1	0	7	+	1	0	6	+	12	10	7	+
2	2	0	1	0	3	+	2	3	4	+	2	0	6	+	9	19	5	+
3	4	-	3	5	2	+	2	1	1	+	1	0	4	+	8	19	3	+
4	3	-	3	3	3	+	3	3	1	+	1	0	1	+	1	1	1	+
5	1	+	1	1	1	+	1	0	1	+	1	0	1	+	1	1	1	+
6	5	-	9	11	2	+	1	2	4	-	2	0	3	+	4	5	3	+
7	5	+	5	5	3	+	7	6	2	+	1	0	2	+	1	0	1	+
8	1	-	1	3	1	+	1	2	1	0	1	0	1	0	1	1	0	/
9	1	-	1	10	1	0	1	9	1	+	1	0	1	0	1	0	1	+
10	1	-	1	2	1	-	1	1	1	+	1	0	1	+	1	14	1	-
11	1	-	1	2	1	0	1	1	1	+	1	0	1	0	1	1	1	+
12	1	-	1	5	1	-	1	1	2	-	1	0	3	+	2	3	1	+
13	2	0	1	4	1	-	1	0	1	-	1	0	1	+	1	1	1	+
14	4	-	2	c	3	+	2	2	3	+	1	0	3	+	2	1	4	+
15	1	-	1	4	1	+	1	1	1	+	1	0	1	+	1	2	1	+



APPENDIX TABLE 14

RAW DATA FOR EVENTS FOR SCHOOL #1 - BLACK

DIST. FROM PRES.	NEAR PAST				EVENTS PRESENT				NEAR FUTURE				FAR FUTURE			
	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.
5	7	+	1	0	7	+	1	0	6	+	12	10	7	+	11	17
0	3	+	2	3	4	+	2	0	6	+	9	19	5	+	3	19
5	2	+	2	1	1	+	1	0	4	+	8	10	3	+	2	6
3	3	+	3	3	1	+	1	0	1	+	1	1	1	+	1	1
1	1	+	1	0	1	+	1	0	1	+	1	1/2	1	+	1	1
11	2	+	1	2	4	-	2	0	3	+	4	5	3	+	1	11
5	3	+	7	6	2	+	1	0	2	+	1	0	1	+	1	1
3	1	+	1	2	1	0	1	0	1	0	1	1	0	/	0	0
10	1	0	1	9	1	+	1	0	1	0	1	0	1	+	1	1
2	1	-	1	1	1	+	1	0	1	+	1	14	1	-	1	49
2	1	0	1	1	1	+	1	0	1	0	1	1	1	+	1	1
5	1	-	1	1	2	-	1	0	3	+	2	3	1	+	1	49
4	1	-	1	0	1	-	1	0	1	+	1	1	1	+	1	2
8	3	+	2	2	3	+	1	0	3	+	2	1	4	+	8	12
4	1	+	1	1	1	+	1	0	1	+	1	2	1	+	1	4

APPENDIX TABLE 15

RAW DATA FOR EVENTS FOR SCHOOL #2 - BLACK

SUBJ. NO.	FAR PAST				NEAR PAST				EVENTS PRESENT				NEAR FUTURE				FAR	
	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT
16	3	0	2	1	2	+	1	0	1	+	1	0	4	+	7	10	4	+
17	1	+	1	1	1	+	1	0	1	+	1	0	1	+	1	0	2	+
18	5	-	6	8	6	+	5	4	4	0	1	0	4	+	81	81	6	+
19	5	-	6	7	4	+	5	5	3	+	1	0	2	+	7	7	5	+
20	9	+	9	9	9	+	1	1	10	+	2	0	7	+	1	0	6	+
21	2	+	1	3	2	+	1	1	6	0	1	0	3	+	1	1	4	+
22	2	-	1	1	1	-	1	2	1	+	1	0	3	+	2	2	1	+
23	7	+	5	7	5	0	1	1	5	+	1	0	3	+	1	10	4	+
24	2	0	1	1	1	+	1	0	3	+	1	0	3	+	12	16	3	+
25	2	+	1	7	3	+	2	5	4	+	1	0	5	+	2	10	1	+
26	1	-	1	11	3	-	2	2	2	+	1	0	4	+	2	1	4	+
27	1	-	1	2	1	-	1	1	2	+	1	0	0	-	-	-	3	+
28	2	-	3	8	2	-	1	0	0	-	-	-	2	+	1	0	0	+
29	4	-	3	5	2	+	2	3	1	+	1	0	3	0	1	0	5	+

APPENDIX TABLE 15

RAW DATA FOR EVENTS FOR SCHOOL #2 - BLACK

NEAR PAST				EVENTS PRESENT				NEAR FUTURE				FAR FUTURE			
NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.
2	+	1	0	1	+	1	0	4	+	7	10	4	+	11	16
1	+	1	0	1	+	1	0	1	+	1	0	2	+	6	7
6	+	5	4	4	0	1	0	4	+	81	81	6	+	7	19
4	+	5	5	3	+	1	0	2	+	7	7	6	+	2	10
9	+	1	1	10	+	2	0	7	+	1	0	6	+	38	38
2	+	1	1	6	0	1	0	3	+	1	1	4	+	1	2
1	-	1	2	1	+	1	0	3	+	2	2	1	+	1	4
5	0	1	1	5	+	1	0	3	+	1	10	4	+	1	14
1	+	1	0	3	+	1	0	3	+	12	16	3	+	1	42
3	+	2	5	4	+	1	0	5	+	2	10	1	+	60	60
3	-	2	2	2	+	1	0	4	+	2	1	4	+	17	18
1	-	1	1	2	+	1	0	0	-	-	-	3	+	8	13
2	-	1	0	0	-	-	-	2	+	1	0	0	-	-	-
2	+	2	3	1	+	1	0	3	0	1	0	5	+	55	59

APPENDIX TABLE 16

RAW DATA FOR EVENTS FOR SCHOOL #3 - BLACK

SUBJ. NO.	FAR PAST			NEAR PAST			EVENTS PRESENT			NEAR FUTURE			FAR	
	NO.	AFFECT	PERIOD COVERED DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED DIST. FROM PRES.	NO.	AFFECT
30	5	+	2 2	6	+	2 1	4	+	1 0	2	+	1 1	3	+
31	3	+	2 2	1	+	1 0	1	+	1 0	1	-	1 1	0	-
32	1	+	3 2	2	+	2 1	4	+	1 0	1	+	1 11	1	+
33	2	-	4 6	1	-	1 0	1	0	1 0	1	+	1 1	2	+
34	5	0	4 11	8	0	3 3	5	+	2 0	4	+	5 5	2	+
35	2	-	1 7	1	-	1 0	1	-	1 0	2	+	7 11	0	+
36	1	-	1 4	4	0	3 4	3	+	1 0	3	+	1 0	4	+
37	1	-	1 7	1	+	1 1	1	+	1 0	1	0	1 0	4	0
38	19	0	1 5	20	0	1 2	10	-	1 0	12	+	9 8	11	0
39	6	-	9 8	5	0	2 1	4	0	1 0	7	+	2 1	5	+
40	1	-	1 5	2	0	1 1	2	-	1 0	1	0	88 87	2	0
41	3	+	7 6	2	+	1 0	3	+	1 0	1	+	1 0	3	+
42	7	0	7 6	9	-	1 0	1	+	1 0	3	+	1 0	4	+
43	3	-	2 3	2	+	1 0	1	+	1 0	3	+	2 1	2	+

APPENDIX TABLE 16

LAW DATA FOR EVENTS FOR SCHOOL #3 - BLACK

NEAR PAST				EVENTS PRESENT				NEAR FUTURE				FAR FUTURE			
NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.
6	+	2	1	4	+	1	0	2	+	1	1	3	+	1	3
1	+	1	0	1	+	1	0	1	-	1	1	0	-	1	2
2	+	2	1	4	+	1	0	1	+	1	11	1	+	1	57
1	-	1	0	1	0	1	0	1	+	1	1	2	+	4	7
8	0	3	3	5	+	2	0	4	+	5	5	2	+	21	32
1	-	1	0	1	-	1	0	2	+	7	11	0	-	--	--
4	0	3	4	3	+	1	0	3	+	1	0	4	+	11	10
1	+	1	1	1	+	1	0	1	0	1	0	4	0	48	52
20	0	1	2	10	-	1	0	12	+	9	8	11	0	1	41
5	0	2	1	4	0	1	0	7	+	2	1	5	+	24	28
2	0	1	1	2	-	1	0	1	0	88	87	2	0	2	5
2	+	1	0	3	+	1	0	1	+	1	0	3	+	3	7
9	-	1	0	1	+	1	0	3	+	1	0	4	+	3	4
2	+	1	0	1	+	1	0	3	+	2	1	2	+	1	6

APPENDIX TABLE 17

## RAW DATA FOR EVENTS FOR SCHOOL #4 - BLACK

SUBJ. NO.	FAR PAST				NEAR PAST				EVENTS PRESENT				NEAR FUTURE				FAR	
	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT
44	4	+	2	2	2	0	1	0	2	0	1	0	2	+	2	1	4	+
45	1	-	1	6	3	+	1	3	2	+	1	0	4	+	7	6	4	+
46	2	+	1	5	3	+	1	0	3	+	2	0	3	+	2	2	4	+
47	1	0	1	1	2	0	1	1	1	-	1	0	2	+	2	3	3	+
48	1	-	1	5	1	+	1	1	1	-	1	0	1	+	1	0	1	+
49	1	-	1 $\frac{1}{2}$	3	1	-	1	0	1	0	1	0	1	+	1	1	1	+
50	3	-	7	6 $\frac{1}{2}$	5	+	1	3	2	0	1	0	3	+	10	15	4	+
51	4	-	1	6	3	+	1	2	2	+	1	0	5	+	2	3	2	+
52	3	-	16	1	1	+	1	0	3	+	1	0	2	+	3	3	2	+
53	7	0	4	15	5	0	4	3	6	0	4	0	8	+	11	11	3	0
54	4	0	4	6	2	0	2	1	1	+	1	0	3	+	2	1	4	+
55	3	+	1	11	3	+	1	2	1	+	1	0	2	+	1	0	2	+
56	2	0	3	8	1	+	1	6	1	+	1	0	2	+	5	5	3	+
57	5	-		10	4	+	3	2	4	+	1	0	3	+	5	8	3	+

APPENDIX TABLE 17

RAW DATA FOR EVENTS FOR SCHOOL #4 - BLACK

NEAR PAST				EVENTS PRESENT				NEAR FUTURE				FAR FUTURE			
NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.
2	0	1	0	2	0	1	0	2	+	2	1	4	+	6	8
3	+	1	3	2	+	1	0	4	+	7	6	4	+	3	13
3	+	1	0	3	+	2	0	3	+	2	2	4	+	11	13
2	0	1	1	1	-	1	0	2	+	2	3	3	+	5	11
1	+	1	1	1	-	1	0	1	+	1	0	1	+	1	12
1	-	1	0	1	0	1	0	1	+	1	1	1	+	1	2
5	+	1	3	2	0	1	0	3	+	10	15	4	+	5	21
3	+	1	2	2	+	1	0	5	+	2	3	2	+	4	10
1	+	1	0	3	+	1	0	2	+	3	3	2	+	4	3
5	0	4	3	6	0	4	0	8	+	11	11	3	0	30	55
2	0	2	1	1	+	1	0	3	+	2	1	4	+	18	22
3	+	1	2	1	+	1	0	2	+	1	0	2	+	13	21
1	+	1	6	1	+	1	0	2	+	5	5	3	+	7	17
4	+	3	2	4	+	1	0	3	+	5	8	3	+	6	41

APPENDIX TABLE 18

RAW DATA FOR EVENTS FOR SCHOOL #5 - BLACK

SUBJ. NO.	FAR PAST				NEAR PAST				EVENTS PRESENT				NEAR FUTURE				FAR	
	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT
58	6	-	6	10	6	-	3	4	2	0	1	0	4	+	3	2	9	+
59	2	+	9	12	1	-	1	0	1	+	1	0	2	+	1	0	1	+
60	2	-	3	16	2	+	2	1	2	+	1	0	2	+	18	27	2	+
61	2	0	1	10	1	-	1	1	1	+	1	0	1	+	6	5	1	+
62	6	-	11	13	3	+	1	0	0		--	--	7	+	0	0	4	+
63	2	0	5	12	5	+	2	2	2	+	1	0	1	+	1	1	3	+
64	3	-	4	10	1	-	3	3	5	+	1	0	2	-	1	0	3	+
65	4	+	5	9	2	0	2	3	1	+	1	0	3	0	1	0	1	+
66	--		--	--	--		--	--	--		--	--	--		--	--	--	
67	13	+	15	17	9	+	2	1	7	+	1	0	11	+	38	33	1	0
68	4	+	2	5	5	+	1	0	5	+	3	0	5	+	2	1	5	+
69	5	-	5	5	1	-	1	0	4	0	1	0	2	+	9	9	3	-
70	3	-	5	10	3	-	3	2	1	+	2	0	1	+	1	0	2	+
71	3	+	3	5	4	-	2	2	18	0	2	0	3	0	2	1	1	+



APPENDIX TABLE 18

RAW DATA FOR EVENTS FOR SCHOOL #5 - BLACK

NEAR PAST				EVENTS PRESENT				NEAR FUTURE				FAR FUTURE			
NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.
6	-	3	4	2	0	1	0	4	+	3	2	9	+	14	13
1	-	1	0	1	+	1	0	2	+	1	0	1	+	1	46
2	+	2	1	2	+	1	0	2	+	18	27	2	+	5	52
1	-	1	1	1	+	1	0	1	+	6	5	1	+	1	12
3	+	1	0	0		--	--	7	+	0	0	4	+	14	14
5	+	2	2	2	+	1	0	1	+	1	1	3	+	8	8
1	-	3	3	5	+	1	0	2	.	1	0	3	+	4	4
2	0	2	3	1	+	1	0	3	0	1	0	1	+	1	13
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
9	+	2	1	7	+	1	0	11	+	38	33	1	0	1	43
5	+	1	0	5	+	3		5	+	2	1	5	+	4	9
1	-	1	0	4	0	1	0	2	+	9	9	3	-	5	11
3	-	3	2	1	+	2	0	1	+	1	0	2	+	4	12
4	-	2	2	18	0	2	0	3	0	2	1	1	+	2	5

APPENDIX TABLE 19

RAW DATA FOR EVENTS FOR SCHOOL #6 - BLACK

SUBJ. NO.	FAR PAST			NEAR PAST			EVENTS PRESENT				NEAR FUTURE			FAR				
	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT
72	5	+	13	17	7	+	4	3	2	0	2	0	0		0	17	3	+
73	6	+	10	18	3	+	1	1	4	+	1	0	5	+	7	7	4	+
74	6	-	4	15	5	+	3	3	2	-	1	0	8	+	11	11	3	0
75	6	+	3	10	7	-	4	4	3	+	1	0	3	+	1	0	4	+
76	3	-	19	20	5	+	1	2	3	+	2	0	4	+	2	1	3	+
77	2	0	5	14	9	+	5	4	2	-	1	0	4	+	1	0	3	+
78	1	-	1	13	3	-	2	1	2	+	1	0	1	+	1	0	1	+
79	10	+	10	18	21	+	5	5	5	-	1	0	3	+	8	8	5	+
80	3	-	16	19	3	+	2	1	2	-	1	0	0		--	--	0	
81	8	+	3	5	4	-	2	3	1	-	1	0	6	+	0	0	0	
82	3	-	19	19	10	+	8	11	8	+	2	0	4	+	5	6	3	+
83	1	+	1	7	1	+	1	1	1	+	1	0	4	+	4	6	1	0

APPENDIX TABLE 19

RAW DATA FOR EVENTS FOR SCHOOL #6 - BLACK

NEAR PAST				EVENTS PRESENT				NEAR FUTURE				FAR FUTURE			
NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.
7	+	4	3	2	0	2	0	0		0	17	3	+	71	78
3	+	1	1	4	+	1	0	5	+	7	7	4	+	35	45
5	+	3	3	2	-	1	0	8	+	11	11	3	0	30	81
7	-	4	4	3	+	1	0	3	+	1	0	4	+	40	40
5	+	1	2	3	+	2	0	4	+	2	1	3	+	2	5
9	+	5	4	2	-	1	0	4	+	1	0	3	+	4	6
3	-	2	1	2	+	1	0	1	+	1	0	1	+	1	6
21	+	5	5	5	-	1	0	3	+	8	8	5	+	37	47
3	+	2	1	2	-	1	0	0		--	--	0		--	--
4	-	2	3	1	-	1	0	6	+	0	0	0		--	--
10	+	8	11	8	+	2	0	4	+	5	6	3	+	50	50
1	+	1	1	1	+	1	0	4	+	4	6	1	0	1	79

APPENDIX TABLE 20

RAW DATA FOR EVENTS FOR SCHOOL #4 - WHITE

SUBJ. NO.	FAR PAST				NEAR PAST				EVENTS PRESENT				NEAR FUTURE				FAR	
	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT
84	5	-	5	15	4	+	6	8	3	+	2	0	5	+	1	0	2	+
85	4	+	4½	10	3	+	5	4	3	+	1	0	3	+	2½	1½	4	+
86	6	+	16	16	6	-	2	1	5	+	2	0	5	+	3	2	3	+
87	--		--	--	--		--	--	--		--	--	--		--	--	--	
88	1	+	1	2	1	+	1	0	2	+	1	0	1	+	1	3	1	+
89	1	0	1	10	1	-	1	2	1	+	1	0	1	-	1	2	3	+
90	1	+	5	6	3	+	8	8	1	+	1	0	1	+	1	1	1	+
91	2	+	3	9	3	+	6	6	2	+	1	0	1	+	1	0	2	+
92	2	+	3½	12½	2	+	1	1	2	-	1	0	2	+	1	0	1	+
93	2	+	5	8	2	+	8	9	3	+	1	0	2	+	2	1	2	+
94	3	+	10	9	4	+	10	9	3	+	1	0	3	+	6	6	3	+
95	2	-	3	5	3	-	2	1	2	+	2	0	2	+	1	0	4	+
96	2	-	6	6	1	-	1	0	2	0	1	0	2	+	3	2	4	+
97	6	0	10	12	4	+	3	3	0		--	--	5	+	2	1	4	+
98	2	0	1	1	3	+	1	0	1	+	1	0	1	-	1	2	1	-

90

90

APPENDIX TABLE 20

RAW DATA FOR EVENTS FOR SCHOOL #4 - WHITE

NEAR PAST				EVENTS PRESENT				NEAR FUTURE				FAR FUTURE			
NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.
4	+	6	8	3	+	2	0	5	+	1	0	2	+	8	10
3	+	5	4	3	+	1	0	3	+	2½	1½	4	+	28	35
6	-	2	1	5	+	2	0	5	+	3	2	3	+	4	9
--		--	--	--		--	--	--		--	--	--		--	--
1	+	1	0	2	+	1	0	1	+	1	3	1	+	1	12
1	-	1	2	1	+	1	0	1	-	1	2	3	+	5	8
3	+	8	8	1	+	1	0	1	+	1	1	1	+	1	6
3	+	6	6	2	+	1	0	1	+	1	0	2	+	18	21
2	+	1	1	2	-	1	0	2	+	1	0	1	+	2	5
2	+	8	9	3	+	1	0	2	+	2	1	2	+	7	14
4	+	10	9	3	+	1	0	3	+	6	6	3	+	16	51
3	-	2	1	2	+	2	0	2	+	1	0	4	+	8	10
1	-	1	0	2	0	1	0	2	+	3	2	4	+	4	13
4	+	3	3	0	--	--		5	+	2	1	4	+	3	5
3	+	1	0	1	+	1	0	1	-	1	2	1	-	1	2

APPENDIX TABLE 21

RAW DATA FOR EVENTS FOR SCHOOL #5 - WHITE

SUBJ. NO.	FAR PAST				NEAR PAST				EVENTS PRESENT				NEAR FUTURE				FAR	
	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT
99	6	+	5	13 $\frac{1}{2}$	11	+	4	3	6	-	1	0	7	+	3	2	0	
100	1	0	1	7	3	+	2	2	3	+	1	0	2	+	2	1	3	+
101	4	+	5	18	8	+	2	1	6	+	2	0	5	+	1	0	5	+
102	4	+	9	15	4	+	5	5	4	+	1	0	5	+	2	1	1	0
103	4	0	7	19	9	+	8	8	3	+	1	0	2	+	2	1	2	+
104	2	-	3	14	3	+	1	0	2	+	1	0	3	+	1	1	4	+
105	2	0	2	6	2	0	2	3	3	+	1	0	2	+	2	1	1	+
106	5	-	9	12	3	-	1	1	4	+	2	0	2	+	11	11	0	
107	1	+	2	11	1	0	1	1	2	+	1	0	1	+	1	0	2	+
108	1	-	1	3	0		0	0	1	+	1	0	1	+	1	0	1	+
109	2	+	3	12	3	-	8	10	2	-	1	0	3	+	1	0	1	+
110	3	0	6	7	5	+	2	2	5	+	1	0	3	+	6	6	4	+
111	--		--	--	--		--	--	--		--	--	--		--	--	--	
112	2	+	3	16	1	-	1	1	1	+	1	0	1	+	1	1	1	+
113	2	-	4	12	9	+	2	3	3	+	2	0	3	+	5	5	2	+

APPENDIX TABLE 21

RAW DATA FOR EVENTS FOR SCHOOL #5 - WHITE

NEAR PAST				EVENTS PRESENT				NEAR FUTURE				FAR FUTURE			
NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.
11	+	4	3	6	-	1	0	7	+	3	2	0		0	0
3	+	2	2	3	+	1	0	2	+	2	1	3	+	4	6
8	+	2	1	6	+	2	0	5	+	1	0	5	+	9	42
4	+	5	5	4	+	1	0	5	+	2	1	1	0	1	9
9	+	8	8	3	+	1	0	2	+	2	1	2	+	51	56
3	+	1	0	2	+	1	0	3	+	1	1	4	+	31	42
2	0	2	3	3	+	1	0	2	+	2	1	1	+	2	5
3	-	1	1	4	+	2	0	2	+	11	11	0		0	0
1	0	1	1	2	+	1	0	1	+	1	0	2	+	1	4
0		0	0	1	+	1	0	1	+	1	0	1	+	1	0
3	-	8	10	2	-	1	0	3	+	1	0	1	+	1	8
5	+	2	2	5	+	1	0	3	+	6	6	4	+	72	72
1	-	1	1	1	+	1	0	1	+	1	1	1	+	3	3
9	+	2	3	3	+	2	0	3	+	5	5	2	+	1	7

APPENDIX TABLE 2-2

RAW DATA FOR EVENTS FOR SCHOOL #7 - WHITE

SUBJ. NO.	FAR PAST				NEAR PAST				EVENTS PRESENT				NEAR FUTURE				FAR	
	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	FROM	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT
114	4	+	4	7	2	0	2	1	3	+	1	0	2	+	2	3	1	+
115	3	+	1	0	1	-	1	0	0		0	0	1	+	1	0	1	+
116	3	+	7	6½	3	+	1½	½	1	0	1	0	2	+	2	½	3	+
117	2	-	3	8	4	+	3	3	3	+	1	0	2	+	2	1	5	+
118	1	+	1	1	1	0	1	0	1	+	1	0	1	+	1	0	3	+
119	7	-	5	8	7	-	5	5	5	0	1	0	2	+	2	1	3	0
120	4	0	6	9	3	+	2	1	6	+	1	0	4	+	1	0	4	+
121	5	+	7	8½	2	-	2	1½	3	+	1	0	2	+	1	0	3	+
122	4	+	4	9	3	+	1	4	3	0	1	0	4	0	15	19	2	0
123	3	+	6	9	6	+	4	3	5	+	1	0	8	+	10	9	6	+
124	2	+	3	9	3	+	2	2	1	0	1	0	1	+	1	6	1	+
125	2	-	4	7	2	-	1	1	3	+	1	0	1	-	80	80	1	-
126	9	+	5	4	5	+	1	0	4	+	1	0	4	+	8	8	4	+
127	1	+	1	9	1	-	1	1	1	-	1	0	1	+	1	1	1	+
128	1	+	1	3	1	+	1	0	2	+	1	0	1	+	1	7	3	+



APPENDIX TABLE 22

RAW DATA FOR EVENTS FOR SCHOOL #7 - WHITE

PAST		NEAR PAST				EVENTS PRESENT				NEAR FUTURE				FAR FUTURE			
PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.
4	7	2	0	2	1	3	+	1	0	2	+	2	3	1	+	1	5
1	0	1	-	1	0	0		0	0	1	+	1	0	1	+	1	0
7	6½	3	+	1½	½	1	0	1	0	2	+	2	½	3	+	4	9½
3	8	4	+	3	3	3	+	1	0	2	+	2	1	5	+	30	27
1	1	1	0	1	0	1	+	1	0	1	+	1	0	3	+	21	30
5	8	7	-	5	5	5	0	1	0	2	+	2	1	3	0	15	17
6	9	3	+	2	1	6	+	1	0	4	+	1	0	4	+	87	89
7	8½	2	-	2	1½	3	+	1	0	2	+	1	0	3	+	7	6½
4	9	3	+	1	4	3	0	1	0	4	0	15	19	2	0	6	24
6	9	6	+	4	3	5	+	1	0	8	+	10	9	6	+	14	14
3	9	3	+	2	2	1	0	1	0	1	+	1	6	1	+	1	7
4	7	2	-	1	1	3	+	1	0	1	-	80	80	1	-	10	10
5	4	5	+	1	0	4	+	1	0	4	+	8	8	4	+	16	25
1	9	1	-	1	1	1	-	1	0	1	+	1	1	1	+	30	28
1	3	1	+	1	0	2	+	1	0	1	+	1	7	3	+	5	15

APPENDIX TABLE 23

RAW DATA FOR EVENTS FOR SCHOOL #8 - WHITE

SUBJ. NG.	FAR PAST				NEAR PAST				EVENTS PRESENT				NEAR FUTURE				FAR AFFECT	
	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.		
129	4	+	3	4	3	+	2	1	1	+	1	0	2	+	4	4	4	+
130	7	+	5	12	4	+	4	3	6	+	1	0	5	+	3	2	8	+
131	1	-	1	9	2	-	1	1	2	+	2	0	3	+	1	0	3	+
132	7	+	8	10	6	+	2	1	3	+	1	0	4	+	4	4	3	+
133	8	+	8	13	6	+	3	2	1	0	1	0	5	+	17	17	3	0
134	2	-	2	9	2	-	3	3	2	+	1	0	2	+	1	1	4	+
135	2	+	3	5	2	0	2	2	3	+	1	0	2	+	1	1	3	+
136	2	+	4	8	3	+	1	0	2	+	1	0	9	+	2	1	4	+
137	4	+	6	11	4	+	3	5	3	+	1	0	4	+	1	1	3	+
138	4	-	7	13	1	0	1	2	1	0	1	0	2	+	3	3	3	+
139	10	+	5	9	10	+	7	8	9	+	4	0	5	+	1	1	5	+
140	4	0	3	8	6	+	4	3	8	+	1	0	5	+	6	8	4	+
141	2	+	2	10	3	+	2	3	2	0	1	0	2	+	2	2	2	+
142	1	-	2	10	2	0	3	6	2	+	3	0	5	+	5	7	4	+
143	3	0	3	7½	2	0	1	3½	5	+	3	0	1	0	1	2	2	+

APPENDIX TABLE 23

RAW DATA FOR EVENTS FOR SCHOOL #8 - WHITE

DIST. FROM PRES.	NEAR PAST				EVENTS PRESENT				NEAR FUTURE				FAR FUTURE			
	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.
	4	3 +	2	1	1	+	1	0	2	+	4	4	4	+	10	14
	12	4 +	4	3	6	+	1	0	5	+	3	2	8	+	85	87
	9	2 -	1	1	2	+	2	0	3	+	1	0	3	+	4	5
	10	6 +	2	1	3	+	1	0	4	+	4	4	3	+	7	17
	13	6 +	3	2	1	0	1	0	5	+	17	17	3	0	11	62
	9	2 -	3	3	2	+	1	0	2	+	1	1	4	+	13	17
	5	2 0	2	2	3	+	1	0	2	+	1	1	3	+	7	8
	8	3 +	1	0	2	+	1	0	9	+	2	1	4	+	9	13
	11	4 +	3	5	3	+	1	0	4	+	1	1	3	+	4	13
	13	1 0	1	2	1	0	1	0	2	+	3	3	3	+	9	14
	9	10 +	7	8	9	+	4	0	5	+	1	1	5	+	7	9
	8	6 +	4	3	8	+	1	0	5	+	6	8	4	+	2	11
	10	3 +	2	3	2	0	1	0	2	+	2	2	2	+	6	10
	10	2 0	3	6	2	+	3	0	5	+	5	7	4	+	41	57
	7½	2 0	1	3½	5	+	3	0	1	0	1	2	2	+	4	7

APPENDIX TABLE 24

RAW DATA FOR EVENTS FOR SCHOOL #9 - WHITE

SUBJ. NO.	FAR PAST			NEAR PAST			EVENTS PRESENT			NEAR FUTURE			FAR					
	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.		NO.	AFFECT			
144	3	-	6	10	6	0	3	2	7	+	1	0	7	+	2	1	6	+
145	4	+	4	13	4	+	3	4	3	+	1	0	3	+	9	12	3	+
146	15	+	10	15	9	-	5	4	8	+	1	0	8	+	3	3	9	+
147	2	0	3 $\frac{1}{2}$	11	3	-	2	1	4	+	1	0	2	+	2	3	4	+
148	3	0	5	12	4	+	3	2	4	+	1	0	2	+	2	3	1	0
149	1	0	6	10	3	0	4	4	1	+	1	0	2	+	1	1	4	+
150	5	+	14	12	4	+	3	2	3	+	2	0	3	+	1	1	1	+
151	18	+	12	11	7	-	1	0	6	+	1	0	4	+	1	1	7	+
152	1	-	1	8	1	+	1	0	2	+	1	0	4	+	19	21	4	+
153	9	-	9	11	6	0	1	1	8	+	1	0	7	+	5	6	10	-
154	2	0	3	9	3	+	3	3	4	0	1	0	2	+	1	1	4	+
155	1	-	1	7	1	-	1	0	4	+	1	0	3	+	3	3	4	+
156	1	+	1	11	1	-	1	6	4	0	1	0	3	+	2	1	1	+
157	3	-	7	12	3	+	4	4	3	+	2	0	3	+	12	13	1	+

APPENDIX TABLE 24

RAW DATA FOR EVENTS FOR SCHOOL #9 - WHITE

NEAR PAST				EVENTS PRESENT				NEAR FUTURE				FAR FUTURE			
NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.
6	0	3	2	7	+	1	0	7	+	2	1	6	+	9	10
4	+	3	4	3	+	1	0	3	+	9	12	3	+	31	75
9	-	5	4	8	+	1	0	8	+	3	3	9	+	45	48
3	-	2	1	4	+	1	0	2	+	2	3	4	+	10	15
4	+	3	2	4	+	1	0	2	+	2	3	1	0	1	65
3	0	4	4	1	+	1	0	2	+	1	1	4	+	13	15
4	+	3	2	3	+	2	0	3	+	1	1	1	+	1	6
7	-	1	0	6	+	1	0	4	+	1	1	7	+	6	7
1	+	1	0	2	+	1	0	4	+	19	21	4	+	1	26
6	0	1	1	8	+	1	0	7	+	5	6	10	-	70	86
3	+	3	3	4	0	1	0	2	+	1	1	4	+	3	5
1	-	1	0	4	+	1	0	3	+	3	3	4	+	6	15
1	-	1	6	4	0	1	0	3	+	2	1	1	+	1	3
3	+	4	4	3	+	2	0	3	+	12	13	1	+	2	18

APPENDIX TABLE 25

RAW DATA FOR EVENTS FOR SCHOOL #9 - WHITE

SUBJ. NO.	FAR PAST				NEAR PAST				EVENTS PRESENT				NEAR FUTURE				FAR	
	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT
158	1	-	1	4	2	+	1	1	1	+	1	0	2	+	2	2	1	+
159	10	+	7	9	6	+	3	2	1	+	1	0	2	+	2	1	1	+
160	1	-	1	11	1	+	1	0	2	+	1	0	2	+	1	1	2	+
161	12	-	4	14	0		0	0	6	-	1	0	5	+	1	0	9	+
162	1	+	1	13	3	+	1	0	3	-	1	0	1	+	1	1	0	
163	2	+	4	12	2	0	2	2	2	+	2	0	3	+	2	3	0	
164	4	+	6	10	4	+	3	3	2	+	1	0	4	+	9	9	0	
165	9	+	7	9	7	+	2	1	4	+	1	0	6	+	1	0	4	+
166	3	-	5	12	3	-	5	4	2	+	1	0	4	+	11	10	3	+
167	4	-	5	10	5	+	1	1	6	+	1	0	5	+	2	1	3	+
168	5	+	4	12	5	+	7	7	3	+	1	0	4	+	2	1	1	+
169	5	+	9	13	12	+	5	4	2	+	1	0	5	+	5	5	4	+
170	5	+	11	13	2	-	2	1	2	+	1	0	2	+	2	1	2	+
171	3	+	7	13	5	+	2	1	5	+	1	0	5	+	8	7	0	

100

100

APPENDIX TABLE 25

RAW DATA FOR EVENTS FOR SCHOOL #9 - WHITE

NEAR PAST				EVENTS PRESENT				NEAR FUTURE				FAR FUTURE			
NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.
2	+	1	1	1	+	1	0	2	+	2	2	1	+	1	8
6	+	3	2	1	+	1	0	2	+	2	1	1	+	1	8
1	+	1	0	2	+	1	0	2	+	1	1	2	+	2	6
0		0	0	6	-	1	0	5	+	1	0	9	+	27	33
3	+	1	0	3	-	1	0	1	+	1	1	0		0	0
2	0	2	2	2	+	2	0	3	+	2	3	0		0	0
4	+	3	3	2	+	1	0	4	+	9	9	0		0	0
7	+	2	1	4	+	1	0	6	+	1	0	4	+	13	13
3	-	5	4	2	+	1	0	4	+	11	10	3	+	13	13
5	+	1	1	6	+	1	0	5	+	2	1	3	+	8	8
5	+	7	7	3	+	1	0	4	+	2	1	1	+	0	0
12	+	5	4	2	+	1	0	5	+	5	5	4	+	63	63
2	-	2	1	2	+	1	0	2	+	2	1	2	+	5	5
5	+	2	1	5	+	1	0	5	+	8	7	0		0	0

APPENDIX TABLE 26

RAW DATA FOR EVENTS FOR SCHOOL #6 - WHITE

SUBJ. NO.	FAR PAST				NEAR PAST				EVENTS PRESENT				NEAR FUTURE				FAR AFFECT	
	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.		NO.
172	4	+	4½	14½	5	+	2	3	4	+	1	0	3	+	1	0	4	+
173	3	+	2	8	3	+	4	3	2	+	1	0	2	+	3	5	3	+
174	3	0	14	14	1	-	1	2	5	+	1	0	5	+	7	6	2	+
175	13	+	13	14	8	+	3	2	3	0	1	0	7	+	2	1	3	+
176	4	+	4	11	6	+	1	0	4	-	1	0	5	-	1	0	4	-
177	7	-	11	17	5	+	4	3	3	-	1	0	3	0	1	0	2	+
178	2	0	2	9	3	+	2	1	3	+	1	0	4	+	2	1	2	+
179	12	-	11	14	9	+	5	4	9	-	1	0	5	+	5	4	4	+
180	6	+	8	15	9	+	4	3	6	+	1	0	5	+	2	1	4	+
181	15	+	11	11	14	+	1	0	6	+	1	0	6	+	2	1	3	+
182	2	0	3	9	4	+	1	0	3	+	1	0	4	+	1	1	3	+
183	8	+	18	18	7	+	3	2	3	0	3	0	7	+	8	12	3	+
184	2	+	10	21	1	+	1	8	2	+	1	0	1	+	1	0	1	+
185	3	+	9	13	3	+	1	0	1	+	1	0	2	0	2	1	1	+

100

100



APPENDIX TABLE 26

RAW DATA FOR EVENTS FOR SCHOOL #6 - WHITE

DIST. FROM PRES.	NEAR PAST				EVENTS PRESENT				NEAR FUTURE				FAR FUTURE			
	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.	NO.	AFFECT	PERIOD COVERED	DIST. FROM PRES.
14½	5	+	2	3	4	+	1	0	3	+	1	0	4	+	52	52
8	3	+	4	3	2	+	1	0	2	+	3	5	3	+	5	9
14	1	-	1	2	5	+	1	0	5	+	7	6	2	+	49	53
14	8	+	3	2	3	0	1	0	7	+	2	1	3	+	5	6
11	6	+	1	0	4	-	1	0	5	-	1	0	4	-	13	12
17	5	+	4	3	3	-	1	0	3	0	1	0	2	+	6	10
9	3	+	2	1	3	+	1	0	4	+	2	1	2	+	4	9
14	9	+	5	4	9	-	1	0	5	+	5	4	4	+	3	5
15	9	+	4	3	6	+	1	0	5	+	2	1	4	+	6	8
11	14	+	1	0	6	+	1	0	6	+	2	1	3	+	52	52
9	4	+	1	0	3	+	1	0	4	+	1	1	3	+	6	8
18	7	+	3	2	3	0	3	0	7	+	8	12	3	+	6	42
21	1	+	1	8	2	+	1	0	1	+	1	0	1	+	20	20
13	3	+	1	0	1	+	1	0	2	0	2	1	1	+	1	3

APPENDIX TABLE 27

RAW DATA FOR SEMANTIC DIFFERENTIAL SCALES AND TIME MACHINE FOR SCHOOL #1 -

SUBJ. NO.	SEMANTIC DIFFERENTIAL SCALES									PREF.	TIME MAC EXT PAST	
	KIND- CRUEL	GOOD- BAD	HARD- SOFT	SLOW- FAST	BEAUT. -UGLY	STRNG. -WEAK	PASS.- ACTIVE.					
	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.					
1	4 4 4	2 4 2	3 5 6	3 6 5	4 4 2	5 3 2	3 5 5	PAST			5 YRS	
2	1 1 1	1 7 7	1 1 1	1 7 7	1 1 1	7 1 1	1 1 1	FUT.			5 YRS	
3	3 2 3	2 1 2	5 7 4	6 3 4	3 1 3	4 2 3	5 7 5	FUT.			8 YRS	
4	3 2 2	2 2 5	7 6 5	3 1 3	4 4 3	3 3 2	6 6 6	FUT.			2 YRS	
5	1 1 1	1 1 1	7 7 7	1 7 7	1 1 1	1 1 1	7 7 7	FUT.			12 YRS	
6	1 1 1	7 2 2	1 1 7	1 7 1	1 1 1	1 1 1	7 7 7	FUT.			5 YRS	
7	4 4 4	2 4 3	2 4 4	4 5 5	4 4 4	4 4 4	3 3 3	FUT.			2373 YRS	
8	4 3 4	4 1 2	2 1 4	7 1 7	2 1 3	3 2 2	6 5 6	PRES.			40 YRS	
9	4 4 7	4 1 1	4 1 1	5 5 4	1 4 4	7 1 1	7 4 1	PRES.			0 YRS	
10	7 7 1	7 7 1	4 1 1	7 7 7	1 1 1	1 1 1	7 7 7	PRES.			1940 YRS	
11	4 1 4	4 1 2	2 2 2	6 6 6	4 4 4	2 4 2	6 7 6	PRES.			2 YRS	
12	4 2 4	4 2 2	3 2 1	5 4 7	4 1 3	3 4 3	6 6 4	FUT.			102 YRS	
13	1 1 1	1 1 7	1 4 1	7 7 1	1 1 1	1 1 1	7 7 7	FUT.			3 YRS	
14	1 1 1	2 2 1	1 4 7	1 7 7	1 1 1	1 1 1	7 7 7	PAST			5 YRS	
15	1 1 1	1 1 1	1 1 7	7 7 7	1 4 1	1 1 1	1 7 7	PAST			87 YRS	

1960

1960

APPENDIX TABLE 27

SEMANTIC DIFFERENTIAL SCALES AND TIME MACHINE FOR SCHOOL #1 - BLACK

SEMANTIC DIFFERENTIAL SCALES												TIME MACHINE						
D- D	HARD- SOFT		SLOW- FAST		BEAUT. -UGLY		STRNG. -WEAK		PASS.. ACTIVE		PREF.	EXTENSION						
	PAST FUT.	PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST	FUTURE								
2	3	5	6	3	6	5	4	4	2	5	3	2	3	5	5	PAST	5 YRS.	10 YRS.
7	1	1	1	1	7	7	1	1	1	7	1	1	1	1	1	FUT.	5 YRS.	4 YRS.
2	5	7	4	6	3	4	3	1	3	4	2	3	5	7	5	FUT.	8 YRS.	17 YRS.
5	7	6	5	3	1	3	4	4	3	3	3	2	6	6	6	FUT.	2 YRS.	1 MO.
1	7	7	7	1	7	7	1	1	1	1	1	1	7	7	7	FUT.	12 YRS.	2 YRS.
2	1	1	7	1	7	1	1	1	1	1	1	1	7	7	7	FUT.	5 YRS.	10 YRS.
3	2	4	4	4	5	5	4	4	4	4	4	4	3	3	3	FUT.	2373 YRS.	3000 YRS.
2	2	1	4	7	1	7	2	1	3	3	2	2	6	5	6	PRES.	40 YRS.	10 YRS.
1	4	1	1	5	5	4	1	4	4	7	1	1	7	4	1	PRES.	0 YRS.	0 YRS.
1	4	1	1	7	7	7	1	1	1	1	1	1	7	7	7	PRES.	1940 YRS.	INFINITY
2	2	2	2	6	6	6	4	4	4	2	4	2	6	7	6	PRES.	2 YRS.	30 YRS.
2	3	2	1	5	4	7	4	1	3	3	4	3	6	6	4	FUT.	102 YRS.	5 YRS.
7	1	4	1	7	7	1	1	1	1	1	1	1	7	7	7	FUT.	3 YRS.	15 YRS.
1	1	4	7	1	7	7	1	1	1	1	1	1	7	7	7	PAST	5 YRS.	4 YRS.
1	1	1	7	7	7	7	1	4	1	1	1	1	7	7	7	PAST	87 YRS.	50 YRS.

APPENDIX TABLE 28

RAW DATA FOR SEMANTIC DIFFERENTIAL SCALES AND TIME MACHINE FOR SCHOOL #2 - B

SUBJ. NO.	SEMANTIC DIFFERENTIAL SCALES									PREF.	TIME MACHINE EXT. PAST
	KIND- CRUEL	GOOD- BAD	HARD- SOFT	SLOW- FAST	BEAUT. -UGLY	STRNG. -WEAK	PASS.- ACTIVE.				
	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.		
16	6 2 4	7 1 4	2 7 4	6 7 4	6 2 4	2 2 4	2 6 5			PAST	5 YRS.
17	7 7 7	1 1 1	1 7 7	1 1 7	1 1 1	1 1 1	7 7 7			FUT.	9 YRS.
18	7 1 1	7 1 1	1 7 1	7 1 1	7 1 4	7 1 1	7 7 7			PRES.	118 YRS.
19	1 1 1	4 1 1	4 1 7	7 4 1	4 1 1	1 1 1	7 7 7			FUT.	100 YRS.
20	1 1 1	1 1 1	1 1 1	7 1 1	2 2 1	1 1 1	7 7 7			PRES.	1 YR.
21	6 1 1	7 1 1	1 6 1	2 7 7	7 1 1	3 7 1	5 7 1			FUT.	0
22	4 1 1	1 1 1	7 7 7	1 7 7	1 1 1	1 1 1	7 7 7			FUT.	1 YR.
23	4 4 4	4 1 1	4 4 4	7 7 7	4 4 4	1 1 1	7 7 1			PRES.	6 YRS.
24	1 7 1	1 1 1	7 7 7	7 1 7	1 1 1	1 1 1	7 7 7			FUT.	7 YRS.
25	2 3 1	3 4 1	7 7 7	7 7 1	7 3 1	1 2 1	7 6 7			PRES.	10 YRS.
26	4 1 1	1 1 1	1 1 1	7 7 7	4 4 1	1 4 1	7 7 7			PRES.	11 YRS.
27	1 1 1	4 4 4	4 4 4	1 7 7	4 4 4	4 4 4	1 7 4			FUT.	4 YRS.
28	3 3 4	1 1 1	1 1 1	7 7 7	1 1 1	1 1 1	7 7 7			PRES.	17 YRS.
29	4 4 4	4 4 3	4 5 4	5 3 5	4 3 4	3 5 4	5 5 5			PAST	5 YRS.

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APPENDIX TABLE 28

SEMANTIC DIFFERENTIAL SCALES AND TIME MACHINE FOR SCHOOL #2 - BLACK

FUT.	SEMANTIC DIFFERENTIAL SCALES												TIME MACHINE					
	HARD-SOFT			SLOW-FAST			BEAUT.-UGLY			STRNG.-WEAK			PASS.-ACTIVE.			PREF.	EXTENSION	
	PAST	PRES.	FUT.	PAST	PRES.	FUT.	PAST	PRES.	FUT.	PAST	PRES.	FUT.	PAST	PRES.	FUT.		PAST	FUTURE
4	2	7	4	6	7	4	6	2	4	2	2	4	2	6	5	PAST	5 YRS.	18 YRS.
1	1	7	7	1	1	7	1	1	1	1	1	1	7	7	7	FUT.	9 YRS.	8 YRS.
1	1	7	1	7	1	1	7	1	4	7	1	1	7	7	7	PRES.	118 YRS.	0
1	4	1	7	7	4	1	4	1	1	1	1	1	7	7	7	FUT.	100 YRS.	18 YRS.
1	1	1	1	7	1	1	2	2	1	1	1	1	7	7	7	PRES.	1 YR.	2 MOS.
1	1	6	1	2	7	7	7	1	1	3	7	1	5	7	1	FUT.	0	8 YRS.
1	7	7	7	1	7	7	1	1	1	1	1	1	7	7	7	FUT.	1 YR.	1 YR.
1	4	4	4	7	7	7	4	4	4	1	1	1	7	7	1	PRES.	6 YRS.	2 YRS.
1	7	7	7	7	1	7	1	1	1	1	1	1	7	7	7	FUT.	7 YRS.	8 YRS.
1	7	7	7	7	7	1	7	3	1	1	2	1	7	6	7	PRES.	10 YRS.	10 YRS.
1	1	1	1	7	7	7	4	4	1	1	4	1	7	7	7	PRES.	11 YRS.	0
4	4	4	4	1	7	7	4	4	4	4	4	4	1	7	4	FUT.	4 YRS.	3 YRS.
1	1	1	1	7	7	7	1	1	1	1	1	1	7	7	7	PRES.	17 YRS.	0
3	4	5	4	5	3	5	4	3	4	3	5	4	5	5	5	PAST	5 YRS.	4 YRS.

APPENDIX TABLE 29

RAW DATA FOR SEMANTIC DIFFERENTIAL SCALES AND TIME MACHINE FOR SCHOOL #3 - R

SUBJ. NO.	SEMANTIC DIFFERENTIAL SCALES									TIME MAC EXT PAST														
	KIND- CRUEL			GOOD- BAD			HARD- SOFT				SLOW- FAST			BEAUT. -UGLY			STRNG. -WEAK			PASS.- ACTIVE.			PREF.	
	PAST	PRES.	FUT.	PAST	PRES.	FUT.	PAST	PRES.	FUT.		PAST	PRES.	FUT.	PAST	PRES.	FUT.	PAST	PRES.	FUT.	PAST	PRES.	FUT.		
30	1	1	1	1	1	1	7	7	1	1	1	7	1	1	1	1	1	1	1	7	7	FUT.		1 YR.
31	3	3	4	3	2	2	2	5	6	6	2	2	2	2	3	2	2	6	2	2	6	6	PRES.	2 YRS
32	1	1	1	4	1	1	6	6	6	5	6	7	1	1	1	1	2	4	2	6	6	6	PRES.	6 YRS
33	5	1	1	2	1	1	3	7	7	7	7	1	1	1	1	1	1	1	1	1	7	7	PRES.	12 YRS
34	3	4	3	2	3	1	3	3	2	1	5	2	2	2	3	1	1	2	7	7	7	7	PAST	200 YRS
35	4	4	4	7	1	1	1	1	7	4	7	7	7	4	1	4	1	1	4	4	4	4	FUT.	12 YRS
36	2	2	2	2	1	4	1	6	1	5	7	2	2	3	4	2	5	3	7	7	6	7	PAST	125 YRS
37	7	2	1	4	5	1	5	2	2	2	6	7	4	1	3	4	5	2	2	7	7	7	PRES.	127 YRS
38	7	7	7	6	1	7	6	1	1	6	7	7	1	1	7	1	7	1	7	7	7	7	PRES.	4 YRS
39	1	4	1	4	7	1	5	4	1	7	6	7	4	2	1	6	1	1	7	7	7	7	PRES.	12 YRS
40	3	3	1	6	4	2	6	6	6	4	5	5	4	4	4	6	5	2	5	6	7	7	PRES.	9 YRS
41	1	1	1	1	1	1	1	7	7	1	1	1	1	1	1	1	7	7	7	7	7	7	PAST	8 YRS
42	5	3	1	4	3	3	2	4	5	4	5	6	3	3	2	2	2	1	2	3	6	7	FUT.	9 YRS
43	7	2	3	7	1	1	6	7	4	2	6	7	1	1	1	7	7	3	1	7	7	7	FUT.	9 YRS

APPENDIX TABLE 29

SEMANTIC DIFFERENTIAL SCALES AND TIME MACHINE FOR SCHOOL #3 -- BLACK

SEMANTIC DIFFERENTIAL SCALES						TIME MACHINE		
OD- AD	HARD- SOFT	SLW- FAST	BEAUT. -UGLY	STRNG. -WEAK	PASS.- ACTIVE.	PREF.	EXTENSION	
							PAST	FUTURE
FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.			
1	7 7 1	1 1 7	1 1 1	1 1 1	1 7 7	FUT.	1 YR.	3 YRS.
2	2 5 6	6 2 2	2 3 2	2 6 2	6 6 6	PRES.	2 YRS.	8 YRS.
1	6 6 6	5 6 7	1 1 1	2 4 2	6 5 6	PRES.	6 YRS.	0
1	3 7 7	7 7 1	1 1 1	1 1 1	1 7 7	PRES.	12 YRS.	8 YRS.
1	3 3 2	1 5 2	2 2 3	1 1 2	7 7 7	PAST	200 YRS.	15 YRS.
1	1 1 7	4 7 7	7 4 1	4 1 1	4 4 4	FUT.	12 YRS.	15 YRS.
4	1 6 1	5 7 2	2 3 4	2 5 3	7 7 6	PAST	125 YRS.	18 YRS.
1	5 2 2	2 6 7	4 1 3	4 5 2	2 7 7	PRES.	127 YRS.	15 YRS.
7	6 1 1	6 7 7	1 1 7	1 7 1	7 7 7	PRES.	4 YRS.	41 YRS.
1	5 4 1	7 6 7	4 2 1	6 1 1	7 7 7	PRES.	12 YRS.	7 YRS.
2	6 6 6	4 5 5	4 4 4	6 5 2	5 6 7	PRES.	9 YRS.	7 YRS.
1	1 7 7	1 1 1	7 1 1	1 7 7	7 7 7	PAST	8 YRS.	6 YRS.
3	2 4 5	4 5 6	3 3 2	2 2 1	2 3 6	FUT.	9 YRS.	45 YRS.
1	6 7 4	2 6 7	1 1 1	7 7 3	1 7 7	FUT.	9 YRS.	7 YRS.

APPENDIX TABLE 30

RAW DATA FOR SEMANTIC DIFFERENTIAL SCALES AND TIME MACHINE FOR SCHOOL #4 - B

SUBJ. NO.	SEMANTIC DIFFERENTIAL SCALES									TIME MAC EXT PAST													
	KIND- CRUEL			GOOD- BAD			HARD- SOFT				SLOW- FAST			BEAUT. -UGLY			STRNG. -WEAK			PASS.- ACTIVE.			PREF.
	PAST	PRES.	FUT.	PAST	PRES.	FUT.	PAST	PRES.	FUT.		PAST	PRES.	FUT.	PAST	PRES.	FUT.	PAST	PRES.	FUT.	PAST	PRES.	FUT.	
44	2	1	1	1	1	1	1	7	7	1	1	1	4	1	1	2	2	2	7	7	7	PRES.	4 YRS
45	1	1	1	1	1	1	7	7	7	1	7	1	1	1	1	1	1	1	7	7	7	PRES.	5 YRS
46	2	3	1	4	2	3	3	2	3	6	4	2	4	2	1	3	2	1	5	6	7	PRES.	5 YRS
47	7	1	1	7	1	1	1	1	7	7	1	1	1	1	1	1	1	1	4	4	4	FUT.	1 YR.
48	2	2	3	1	2	1	7	3	7	3	5	5	1	3	1	3	3	4	3	2	2	PAST	12 YRS
49	4	4	1	4	4	1	1	4	4	1	7	4	4	4	4	4	1	1	7	7	7	PRES.	7 YRS
50	3	3	3	3	4	3	7	4	3	2	4	3	4	4	3	1	3	3	7	7	6	FUT.	8 YRS
51	7	1	1	7	1	1	1	1	7	7	7	7	4	4	4	7	1	1	1	7	7	PRES.	2 YRS
52	1	1	1	1	1	1	7	7	7	7	7	7	1	1	1	1	1	1	1	7	7	PAST	6 YRS
53	7	1	1	5	1	4	1	3	5	7	4	1	5	4	4	5	2	4	7	7	5	FUT.	10 YRS
54	3	2	1	3	2	1	5	4	7	2	6	1	1	2	1	2	4	1	6	6	7	PRES.	131 YRS
55	1	2	3	3	3	2	4	4	3	5	3	3	2	2	4	2	1	2	7	6	6	PRES.	13 YRS
56	1	1	1	1	1	1	5	4	1	7	1	1	1	4	1	1	1	1	4	7	7	FUT.	8 YRS
57	1	1	1	1	1	1	7	1	7	7	1	7	1	1	1	7	1	1	7	7	7	PAST	INFINITY

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APPENDIX TABLE 30

SEMANTIC DIFFERENTIAL SCALES AND TIME MACHINE FOR SCHOOL #4 - BLACK

SEMANTIC DIFFERENTIAL SCALES					TIME MACHINE		
HARD- SOFT	SLOW- FAST	BEAUT. -UGLY	STRNG. -WEAK	PASS.- ACTIVE.	PREF.	EXTENSION	
						PAST	FUTURE
PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.			
1 7 7	1 1 1	4 1 1	2 2 2	7 7 7	PRES.	4 YRS.	3 YRS.
7 7 7	1 7 1	1 1 1	1 1 1	7 7 7	PRES.	5 YRS.	11 YRS.
3 2 3	6 4 2	4 2 1	3 2 1	5 6 7	PRES.	5 YRS.	0
1 1 7	7 1 1	1 1 1	4 1 1	4 4 4	FUT.	1 YR.	2 YRS.
7 3 7	3 5 5	1 3 1	3 3 4	3 2 2	PAST	12 YRS.	12 YRS.
1 4 4	1 7 4	4 4 4	4 4 1	1 7 7	PRES.	7 YRS.	8 YRS.
7 4 3	2 4 3	4 4 3	1 3 3	7 7 6	FUT.	8 YRS.	27 YRS.
1 1 7	7 7 7	4 4 4	7 1 1	1 7 7	PRES.	2 YRS.	6 YRS.
7 7 7	7 7 7	1 1 1	1 1 1	1 7 7	PAST	6 YRS.	0
1 3 5	7 4 1	5 4 4	5 2 4	7 7 5	FUT.	10 YRS.	10 YRS.
5 4 7	2 6 1	1 2 1	2 4 1	6 6 7	PRES.	131 YRS.	249 YRS.
4 4 3	5 3 3	2 2 4	2 1 2	7 6 6	PRES.	13 YRS.	26 YRS.
5 4 1	7 1 1	1 4 1	1 1 1	4 7 7	FUT.	8 YRS.	10 YRS.
7 1 7	7 1 7	1 1 1	7 1 1	7 7 7	PAST	INFINITY	427 YRS.

APPENDIX TABLE 31

RAW DATA FOR SEMANTIC DIFFERENTIAL SCALES AND TIME MACHINE FOR SCHOOL #5 - B

SUBJ. NO.	SEMANTIC DIFFERENTIAL SCALES									PREF.	TIME MAC EXT PAST
	KIND-- CRUEL	GOOD-- BAD	HARD-- SOFT	SLOW-- FAST	BEAUT. -UGLY	STRNG. -WEAK	PASS.- ACTIVE.				
	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.				
58	4 4 1	5 3 3	4 4 5	5 3/3	5 4 2	5 3 2	5 6 4			PRES.	118 YRS
59	4 4 3	4 3 2	1 2 5	6 1 5	6 3 3	4 2 3	5 6 7			PRES.	10 YRS
60	2 3 4	3 3 2	7 4 5	4 4 4	1 4 4	4 3 3	7 4 7			PRES.	5 YRS
61	- - -	- - -	- - -	- - -	- - -	- - -	- - -			PRES.	0
62	3 1 1	7 1 1	4 6 4	1 4 7	4 1 1	4 4 3	1 5 7			PRES.	600 YRS
63	5 3 1	3 3 3	3 3 7	5 5 1	3 3 1	3 5 1	5 3 7			PAST	5 YRS
64	1 1 1	2 3 1	4 4 7	6 5 1	2 2 1	5 5 1	7 7 7			PAST	123 YRS
65	4 1 2	4 7 2	3 4 4	7 7 7	5 2 2	4 3 2	7 7 7			----	----
66	- - -	- - -	- - -	- - -	- - -	- - -	- - -			----	----
67	2 2 1	3 2 1	6 6 7	7 6 7	2 1 1	2 2 1	7 7 7			PRES.	158 YRS
68	1 1 1	1 1 1	1 7 1	1 7 1	1 1 1	7 1 1	1 7 7			FUT.	12 YRS
69	5 2 3	6 2 2	2 2 2	7 6 3	6 4 4	6 2 2	2 4 2			PRES.	0
70	7 1 1	7 1 1	1 7 6	1 7 5	7 1 1	7 1 1	1 7 7			PRES.	2 YRS
71	5 1 1	4 3 1	4 3 7	4 7 7	4 1 1	3 3 1	4 7 7			----	----

APPENDIX TABLE 31

SEMANTIC DIFFERENTIAL SCALES AND TIME MACHINE FOR SCHOOL #5 - BLACK

FUT.	SEMANTIC DIFFERENTIAL SCALES						TIME MACHINE											
	HARD- SOFT		SLOW- FAST		BEAUT. -UGLY		STRNG. -WEAK		PASSIVE ACTIVE.		PREF.	EXTENSION						
	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.		PAST	FUTURE						
3	4	4	5	5	3	3	5	4	2	5	3	2	5	6	4	PRES.	118 YRS.	527 YRS.
2	1	2	5	6	1	5	6	3	3	4	2	3	5	6	7	PRES.	10 YRS.	18 YRS.
2	7	4	5	4	4	4	1	4	4	4	3	3	7	4	7	PRES.	5 YRS.	8 YRS.
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	PRES.	0	0
3	4	6	4	1	4	7	4	1	1	4	4	3	1	5	7	PRES.	600 YRS.	1000 YRS.
3	3	3	7	5	5	1	3	3	1	3	5	1	5	3	7	PAST	5 YRS.	8 YRS.
1	4	4	7	6	5	1	2	2	1	5	5	1	7	7	7	PAST	123 YRS.	100 YRS.
2	3	4	4	7	7	7	5	2	2	4	3	2	7	7	7	----	----	----
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	----	----	----
1	6	6	7	7	6	7	2	1	1	2	2	1	7	7	7	PRES.	158 YRS.	10 YRS.
2	1	7	1	1	7	1	1	1	1	7	1	1	1	7	7	FUT.	12 YRS.	6 YRS.
2	2	2	2	7	6	3	6	4	4	6	2	2	2	4	2	PRES.	0	84 YRS.
1	1	7	6	1	7	5	7	1	1	7	1	1	1	7	7	PRES.	2 YRS.	0
1	4	3	7	4	7	7	4	1	1	3	3	1	4	7	7	----	----	----

APPENDIX TABLE 32

RAW DATA FOR SEMANTIC DIFFERENTIAL SCALES AND TIME MACHINE FOR SCHOOL #6 - B

SUBJ. NO.	SEMANTIC DIFFERENTIAL SCALES							PREF.	TIME MAC EXT PAST
	KIND- CRUEL	GOOD- BAD	HARD- SOFT	SLOW- FAST	BEAUT. -UGLY	STRNG. -WEAK	PASS.- ACTIVE.		
	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.		
72	6 3 4	5 4 4	7 3 1	4 1 7	4 4 4	2 3 2	7 5 6	PRES.	17 YRS
73	4 3 4	2 4 3	4 3 4	6 3 4	3 4 3	4 4 3	6 5 6	PRES.	11 YRS
74	2 5 1	6 5 1	1 3 6	1 7 1	3 6 2	6 6 2	7 1 2	PAST	0
75	3 2 4	2 3 2	5 4 2	6 6 4	2 2 3	2 2 2	5 4 5	PRES.	7 YRS
76	7 6 2	1 1 1	1 1 1	7 6 6	1 3 2	1 1 1	7 4 7	FUT.	8 YRS
77	4 4 3	4 4 2	2 2 2	4 4 6	4 3 2	3 3 2	5 4 7	FUT.	13 YRS
78	2 2 2	7 4 2	6 6 6	6 7 6	7 4 3	6 3 1	5 2 6	FUT.	1 YR.
79	4 5 4	1 3 4	1 3 3	7 5 4	2 4 4	2 6 4	7 2 6	FUT.	16 YRS
80	1 1 4	1 2 4	7 7 4	6 6 4	2 1 4	1 1 4	7 7 4	PRES.	19 YRS
81	1 3 1	3 2 1	7 7 7	7 7 7	3 3 1	1 1 1	1 1 1	PRES.	12 YRS
82	3 3 1	2 2 4	5 3 2	6 2 3	4 4 1	5 5 2	3 4 6	FUT.	1 YR.
83	1 1 2	1 1 3	1 3 3	2 6 6	1 1 1	1 1 1	7 7 7	PRES.	0

APPENDIX TABLE 32

SEMANTIC DIFFERENTIAL SCALES AND TIME MACHINE FOR SCHOOL #6 - BLACK

SEMANTIC DIFFERENTIAL SCALES					TIME MACHINE		
HARD- SOFT	SLOW- FAST	BEAUT. -UGLY	STRNG. -WEAK	PASS.- ACTIVE.	PREF.	EXTENSION	
						PAST	FUTURE
PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.			
7 3 1	4 1 7	4 4 4	2 3 2	7 5 6			
4 3 4	6 3 4	3 4 3	4 4 3	6 5 6	PRES.	17 YRS.	78 YRS.
1 3 6	1 7 1	3 6 2	6 6 2	7 1 2	PRES.	11 YRS.	4 YRS.
5 4 2	6 6 4	2 2 3	2 2 2	5 4 5	PAST	0	50 YRS.
1 1 1	7 6 6	1 3 2	1 1 1	7 4 7	PRES.	7 YRS.	5 YRS.
2 2 2	4 4 6	4 3 2	3 3 2	5 4 7	FUT.	8 YRS.	6 YRS.
6 6 6	6 7 6	7 4 3	6 3 1	5 2 6	FUT.	13 YRS.	21 YRS.
1 3 3	7 5 4	2 4 4	2 6 4	7 2 6	FUT.	1 YR.	15 YRS.
7 7 4	6 6 4	2 1 4	1 1 4	7 7 4	FUT.	16 YRS.	22 YRS.
7 7 7	7 7 7	3 3 1	1 1 1	1 1 1	PRES.	19 YRS.	5 YRS.
5 3 2	6 2 3	4 4 1	5 5 2	3 4 6	PRES.	12 YRS.	3 YRS.
1 3 3	2 6 6	1 1 1	1 1 1	7 7 7	FUT.	1 YR.	79 YRS.
					PRES.	0	0

APPENDIX TABLE 33

RAW DATA FOR SEMANTIC DIFFERENTIAL SCALES AND TIME MACHINE FOR SCHOOL #4 - W

SUBJ. NO.	SEMANTIC DIFFERENTIAL SCALES									PREF.	TIME MAC EXT PAST	
	KIND- CRUEL	GOOD- BAD	HARD- SOFT	SLOW- FAST	BEAUT. -UGLY	STRNG. -WEAK	PASS.- ACTIVE.					
	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.					
84	1 4 1	1 1 1	4 4 1	7 7 4	1 4 1	4 1 1	7 7 7	PRES.	2 YRS			
85	1 1 1	1 1 1	4 4 4	6 6 4	1 1 1	2 1 1	7 7 5	FUT.	14 YRS			
86	7 7 3	7 2 1	1 2 2	1 3 2	6 2 2	3 1 1	7 7 7	FUT.	2 YRS			
87	- - -	- - -	- - -	- - -	- - -	- - -	- - -					
88	1 1 1	1 1 4	4 4 4	4 4 1	1 1 4	1 1 4	4 7 4	PRES.	120 YRS			
89	3 3 1	5 2 2	4 4 4	4 6 7	3 3 2	2 2 1	6 7 7	PRES.	3 YRS			
90	3 4 4	4 4 1	3 4 4	3 5 4	4 4 4	4 4 4	7 7 7	PRES.	INFINITY			
91	3 3 1	3 3 3	4 3 4	4 6 5	1 2 1	4 4 4	6 6 6	PRES.	5 YRS			
92	3 4 2	3 5 3	5 2 3	6 6 2	3 4 2	2 3 3	6 7 6	PAST	10 YRS			
93	1 1 2	2 1 1	6 7 5	7 7 3	2 2 3	1 2 2	6 6 7	FUT.	2 YRS			
94	1 1 1	1 1 4	1 3 7	4 7 7	4 1 1	7 1 1	7 7 7	PAST	60 YRS			
95	6 3 4	4 4 2	3 3 2	2 6 2	4 2 5	6 2 4	3 6 5	PRES.	10 YRS			
96	4 2 4	4 6 2	3 1 1	2 6 2	4 3 4	3 3 2	4 4 4	FUT.	14 YRS			
97	5 4 2	6 3 3	3 4 4	4 5 4	5 4 2	4 4 4	4 5 5	FUT.	3 YRS			
98	2 3 2	1 3 6	5 4 2	4 6 1	2 5 7	2 4 6	7 4 5	PRES.	71 YRS			

11.

11.



APPENDIX TABLE 34

RAW DATA FOR SEMANTIC DIFFERENTIAL SCALES AND TIME MACHINE FOR SCHOOL #5 - W

SUBJ. NO.	SEMANTIC DIFFERENTIAL SCALES												TIME MAC										
	KIND- CRUEL			GOOD- BAD			HARD- SOFT			SLOW- FAST			BEAUT.- -UGLY			STRNG.- -WEAK			PASS.- ACTIVE.			PREF.	EXT PAST
	PAST	PRES.	FUT.	PAST	PRES.	FUT.	PAST	PRES.	FUT.	PAST	PRES.	FUT.	PAST	PRES.	FUT.	PAST	PRES.	FUT.	PAST	PRES.	FUT.		
99	1	1	1	5	2	2	2	5	3	6	7	7	5	2	1	3	2	2	6	6	7	PRES.	14 YRS
100	4	2	1	6	1	1	1	3	2	3	7	7	6	2	1	1	2	1	3	7	7	PAST	20 YRS
101	4	2	2	3	2	1	4	4	4	3	6	5	4	3	2	3	2	2	5	6	6	FUT.	56 YRS
102	3	4	2	2	2	2	4	3	4	6	3	4	4	3	2	4	2	3	6	5	4	----	----
103	2	2	1	3	2	1	4	4	6	4	6	4	3	2	1	2	2	1	6	7	7	PRES.	19 YRS
104	4	5	1	5	3	1	2	3	7	3	6	1	5	4	1	3	3	4	5	5	1	FUT.	1 DAY
105	4	4	4	4	1	1	2	4	4	4	7	6	4	2	3	2	1	2	6	7	4	PRES.	5 YRS
106	6	5	1	5	4	2	3	5	6	4	7	4	6	4	1	4	3	1	6	3	1	FUT.	14 YRS
107	4	2	4	5	2	2	3	6	4	6	6	6	4	3	4	3	2	3	2	6	6	FUT.	10 YRS
108	1	1	1	4	4	1	1	1	1	1	7	7	4	4	4	4	7	1	7	4	7	PRES.	6 YRS
109	1	4	4	6	1	1	5	1	7	1	5	6	4	4	1	1	4	4	3	7	7	FUT.	2 YRS
110	5	2	3	2	2	2	2	6	4	1	5	2	5	2	2	6	4	3	5	3	3	----	----
111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	----	----
112	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	----	----
113	4	3	3	4	3	3	3	3	3	6	5	5	4	3	3	3	3	3	5	6	6	PAST	30 YRS

1.50

1.51



APPENDIX TABLE 34

SEMANTIC DIFFERENTIAL SCALES AND TIME MACHINE FOR SCHOOL #5 - WHITE

SEMANTIC DIFFERENTIAL SCALES															TIME MACHINE		
HARD- SOFT			SLOW- FAST			BEAUT. -UGLY			STRNG. -WEAK			PASS.- ACTIVE.			PREF.	EXTENSION	
PAST	PRES.	FUT.	PAST	PRES.	FUT.	PAST	PRES.	FUT.	PAST	PRES.	FUT.	PAST	PRES.	FUT.		PAST	FUTURE
2	5	3	6	7	7	5	2	1	3	2	2	6	6	7	PRES.	14 YRS.	1028 YRS.
1	3	2	3	7	7	6	2	1	1	2	1	3	7	7	PAST	20 YRS.	4 YRS.
4	4	4	3	6	5	4	3	2	3	2	2	5	6	6	FUT.	56 YRS.	38 YRS.
4	3	4	6	3	4	4	3	2	4	2	3	6	5	4	----	----	----
4	4	6	4	6	4	3	2	1	2	2	1	6	7	7	PRES.	19 YRS.	10 YRS.
2	3	7	3	6	1	5	4	1	3	3	4	5	5	1	FUT.	1 DAY	1 YR.
2	4	4	4	7	6	4	2	3	2	1	2	6	7	4	PRES.	5 YRS.	5 YRS.
3	5	6	4	7	4	6	4	1	4	3	1	6	3	1	FUT.	14 YRS.	5 YRS.
3	6	4	6	6	6	4	3	4	3	2	3	2	6	6	FUT.	10 YRS.	20 YRS.
1	1	1	1	7	7	4	4	4	4	7	1	7	4	7	PRES.	6 YRS.	12 YRS.
5	1	7	1	5	6	4	4	1	1	4	4	3	7	7	FUT.	2 YRS.	63 YRS.
2	6	4	1	5	2	5	2	2	6	4	3	5	3	3	----	----	----
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	----	----	----
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	----	----	----
3	3	3	6	5	5	4	3	3	3	3	3	5	6	6	PAST	30 YRS.	10 YRS.
----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	

APPENDIX TABLE 35

RAW DATA FOR SEMANTIC DIFFERENTIAL SCALES AND TIME MACHINE FOR SCHOOL #7 - W

SUBJ. NO.	SEMANTIC DIFFERENTIAL SCALES									PREF.	TIME MACHINE													
	KIND-CRUEL			GOOD-BAD			HARD-SOFT				SLOW-FAST			BEAUT.-UGLY			STRNG.-WEAK			PASS.-ACTIVE			PAST	EXT
	PAST	PRES.	FUT.	PAST	PRES.	FUT.	PAST	PRES.	FUT.		PAST	PRES.	FUT.	PAST	PRES.	FUT.	PAST	PRES.	FUT.					
114	2	1	2	1	2	1	6	6	7	7	7	6	2	2	1	1	1	1	6	6	7	FUT.	123	YR
115	6	2	4	4	2	4	4	4	3	2	5	6	3	4	4	2	5	3	6	2	4	PAST	9	YR
116	2	3	3	2	2	6	6	5	4	5	6	3	4	4	2	2	2	6	6	6	FUT.	10	YR	
117	6	3	1	3	1	1	4	5	2	6	3	6	3	2	1	4	2	2	7	7	7	PRES.	6	YR
118	5	4	1	6	1	1	4	3	6	6	1	1	6	2	1	4	1	1	1	1	4	FUT.	1½	MO
119	1	4	4	4	5	4	3	4	3	4	7	4	4	4	1	4	4	4	4	4	4	FUT.	60	YR
120	1	1	1	4	5	3	5	3	3	6	5	6	3	2	4	4	3	3	6	7	7	PAST	26000	YR
121	3	3	4	1	2	1	2	3	2	5	4	4	1	1	1	1	1	1	7	7	7	PAST	3½	YR
122	6	2	7	5	3	7	4	4	1	3	3	7	5	2	7	3	2	4	7	7	4	PAST	B.C.	
123	4	4	4	3	4	2	3	2	2	4	7	2	4	4	4	2	3	2	7	7	7	PAST	23 MIL.	YR
124	3	4	4	2	1	2	4	6	4	3	4	2	4	3	4	4	3	3	6	7	6	PRES.	2	YR
125	7	7	7	5	7	7	1	7	7	7	4	4	4	4	4	1	1	3	4	6	7	PRES.	3	YR
126	1	3	6	7	4	2	5	6	3	3	2	2	4	6	4	6	7	4	3	4	2	PAST	8	YR
127	1	1	1	1	1	1	7	3	4	4	1	4	4	7	5	4	4	2	2	2	1	PAST	1	MO
128	4	5	4	4	3	1	5	4	4	6	6	6	3	4	4	3	3	1	6	6	6	PRES.	3	YR

APPENDIX TABLE 35

ANTIC DIFFERENTIAL SCALES AND TIME MACHINE FOR SCHOOL #7 - WHITE

ANTIC DIFFERENTIAL SCALES									TIME MACHINE										
HARD- SOFT			SLOW- FAST		BEAUT. -UGLY		STRNG. -WEAK		PASS.- ACTIVE.	PREF.	EXTENSION		PAST	FUTURE					
PAST	PRES.	FUT.	PAST	PRES.	FUT.	PAST	PRES.	FUT.	PAST	PRES.	FUT.	PAST	PRES.	FUT.					
6	6	7	7	7	6	2	2	1	1	1	1	6	6	7	FUT.	123	YRS.	28	YRS.
4	4	3	2	5	6	3	4	4	2	5	3	6	2	4	PAST	9	YRS.	10	YRS.
6	6	5	4	5	6	3	4	4	2	2	2	6	6	6	FUT.	10	YRS.	31½	YRS.
4	5	2	6	3	6	3	2	1	4	2	2	7	7	7	PRES.	6	YRS.	9	YRS.
4	3	6	6	1	1	6	2	1	4	1	1	1	1	4	FUT.	1½	MOS.	1	MO.
3	4	3	4	7	4	4	4	1	4	4	4	4	4	4	FUT.	60	YRS.	14	YRS.
5	3	3	6	5	6	3	2	4	4	3	3	6	7	7	PAST	26000	YRS.	100	YRS.
2	3	2	5	4	4	1	1	1	1	1	1	7	7	7	PAST	3½	YRS.	6½	YRS.
4	4	1	3	3	7	5	2	7	3	2	4	7	7	4	PAST	B.C.		INFINITY	
3	2	2	4	7	2	4	4	4	2	3	2	7	7	7	PAST	23	MIL. YRS.	30	YRS.
4	6	4	3	4	2	4	3	4	4	3	3	6	7	6	PRES.	2	YRS.	4	YRS.
1	7	7	7	4	4	4	4	4	1	1	3	4	6	7	PRES.	3	YRS.	1	YR.
5	6	3	3	2	2	4	6	4	6	7	4	3	4	2	PAST	8	YRS.	2	YRS.
7	3	4	4	1	4	4	7	5	4	4	2	2	2	1	PAST	1	MO.	78	YRS.
5	4	4	6	6	6	3	4	4	3	3	1	6	6	6	PRES.	3	YRS.	4	YRS.

APPENDIX TABLE 36

RAW DATA FOR SEMANTIC DIFFERENTIAL SCALES AND TIME MACHINE FOR SCHOOL #8 - W

SUBJ. NO.	SEMANTIC DIFFERENTIAL SCALES									TIME MAC EXT PAST
	KIND- CRUEL	GOOD- BAD	HARD- SOFT	SLOW- FAST	BEAUT. -UGLY	STRNG. -WEAK	PASS.- ACTIVE.	PREF.		
	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.			
129	4 2 3	2 1 1	2 2 5	7 7 7	4 2 2	3 1 1	7 7 7	FUT.	3 YRS.	
130	1 1 1	2 1 1	2 6 2	7 7 7	2 2 1	2 2 1	7 7 7	PAST	372 YRS.	
131	2 4 4	2 1 1	5 6 2	7 7 2	4 4 4	3 2 3	6 7 6	FUT.	9 YRS.	
132	4 3 2	2 3 3	4 2 3	5 6 6	2 4 3	2 2 2	6 7 6	FUT.	13 YRS.	
133	1 2 3	2 2 1	6 7 6	4 7 2	2 2 3	4 3 2	6 6 6	FUT.	2172 YRS.	
134	1 1 1	3 2 1	1 1 6	2 1 4	4 6 1	3 2 1	3 3 6	PRES.	2 YRS.	
135	2 2 2	2 3 2	4 4 4	5 6 6	3 3 4	3 2 3	6 6 7	FUT.	972 YRS.	
136	3 4 2	1 1 1	3 3 5	5 6 7	2 1 1	5 4 2	7 7 7	PRES.	8 YRS.	
137	3 3 2	3 2 1	4 2 4	2 1 6	3 3 1	4 3 1	6 7 7	FUT.	2 YRS.	
138	3 2 1	3 4 3	5 6 5	4 6 6	2 2 1	3 3 3	6 6 7	PAST	972 YRS.	
139	2 1 4	5 1 1	6 4 5	5 6 6	4 3 2	5 6 4	4 7 5	PAST	388 YRS.	
140	2 4 2	1 2 2	6 5 3	3 7 7	1 2 1	3 3 2	7 7 7	FUT.	7 YRS.	
141	4 5 1	5 3 1	4 3 1	2 5 7	4 5 1	5 5 1	2 6 7	FUT.	13 YRS.	
142	2 2 2	6 2 3	2 4 4	4 6 4	5 3 2	4 4 4	7 7 6	PAST	10 YRS.	
143	2 3 3	6 5 4	3 6 6	5 5 6	4 4 6	6 6 5	3 4 6	PRES.	4 YRS.	

APPENDIX TABLE 36

SEMANTIC DIFFERENTIAL SCALES AND TIME MACHINE FOR SCHOOL #8 - WHITE

SEMANTIC DIFFERENTIAL SCALES												TIME MACHINE							
HARD-SOFT			SLOW-FAST			BEAUT.-UGLY			STRNG.-WEAK			PASS.-ACTIVE			PREF.			EXTENSION	
PAST	PRES.	FUT.	PAST	PRES.	FUT.	PAST	PRES.	FUT.	PAST	PRES.	FUT.	PAST	PRES.	FUT.	PAST	PRES.	FUT.	PAST	FUTURE
2	2	5	7	7	7	4	2	2	3	1	1	7	7	7	FUT.	3	YRS.	4	YRS.
2	6	2	7	7	7	2	2	1	2	2	1	7	7	7	PAST	372	YRS.	25	YRS.
5	6	2	7	7	2	4	4	4	3	2	3	6	7	6	FUT.	9	YRS.	2	YRS.
4	2	3	5	6	6	2	4	3	2	2	2	6	7	6	FUT.	13	YRS.	57	YRS.
6	7	6	4	7	2	2	2	3	4	3	2	6	6	6	FUT.	2172	YRS.	1000	YRS.
1	1	6	2	1	4	4	6	1	3	2	1	3	3	6	PRES.	2	YRS.	27	YRS.
4	4	4	5	6	6	3	3	4	3	2	3	6	6	7	FUT.	972	YRS.	19	YRS.
3	3	5	5	6	7	2	1	1	5	4	2	7	7	7	PRES.	8	YRS.	0	
4	2	4	2	1	6	3	3	1	4	3	1	6	7	7	FUT.	2	YRS.	5	YRS.
5	6	5	4	6	6	2	2	1	3	3	3	6	6	7	PAST	972	YRS.	1	YRS.
6	4	5	5	6	6	4	3	2	5	6	4	4	7	5	PAST	388	YRS.	10	YRS.
6	5	3	3	7	7	1	2	1	3	3	2	7	7	7	FUT.	17	YRS.	37	YRS.
4	3	1	2	5	7	4	5	1	5	5	1	2	6	7	FUT.	13	YRS.	50	YRS.
2	4	4	4	6	4	5	3	2	4	4	4	7	7	6	PAST	10	YRS.	20	YRS.
3	6	6	5	5	6	4	4	6	6	6	5	3	4	6	PRES.	4	YRS.	4	YRS.

APPENDIX TABLE 37

RAW DATA FOR SEMANTIC DIFFERENTIAL SCALES AND TIME MACHINE FOR SCHOOL #9 - W

SUBJ. NO.	SEMANTIC DIFFERENTIAL SCALES									PREF.	TIME MAC EXT PAST
	KIND- CRUEL	GOOD- BAD	HARD- SOFT	SLOW- FAST	BEAUT. -UGLY	STRNG. -WEAK	PASS.- ACTIVE.				
	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.			
144	5 6 1	4 6 1	3 1 4	5 6 2	4 4 1	5 4 1	7 7 7	PRES.			5 YRS
145	3 2 5	2 4 3	3 3 1	4 4 2	2 2 2	2 2 4	7 7 7	PRES.			1 DAY
146	2 1 1	2 1 1	4 6 4	7 7 3	1 1 1	3 1 1	7 7 7	PRES.			8 YRS
147	4 4 1	5 3 1	4 3 4	5 6 7	4 4 1	4 3 1	7 7 7	PAST			972 YRS
148	1 1 1	3 1 1	3 6 1	7 1 7	2 1 1	4 4 3	6 7 7	PAST			322 YRS
149	4 4 4	3 2 1	3 2 1	4 4 5	4 4 4	3 3 2	7 7 7	PAST			6 YRS
150	3 7 4	4 2 2	6 1 1	1 7 6	2 2 3	4 2 1	7 7 6	FUT.			4 YRS
151	7 2 1	7 4 3	2 6 5	7 7 3	6 2 1	1 1 1	2 3 5	----			50 YRS
152	2 1 1	2 3 1	4 3 4	4 5 4	2 4 2	4 4 4	7 7 7	FUT.			196 YRS
153	1 7 3	6 7 2	7 1 2	4 1 6	1 7 2	6 7 1	1 5 6	FUT.			400 YRS
154	4 5 4	4 2 2	2 3 4	1 4 4	5 4 4	1 3 4	7 7 7	PRES.			3 YRS
155	2 1 2	2 1 4	4 7 5	6 1 7	4 2 4	2 2 4	6 4 7	PRES.			8 YRS
156	3 2 2	2 2 2	4 4 4	2 5 5	2 2 2	2 2 2	4 4 6	PAST			5 YRS
157	1 3 2	3 1 2	4 3 2	6 7 5	4 4 2	3 2 3	6 7 6	PRES.			5 YRS

APPENDIX TABLE 37

SEMANTIC DIFFERENTIAL SCALES AND TIME MACHINE FOR SCHOOL #9 - WHITE

SEMANTIC DIFFERENTIAL SCALES										TIME MACHINE									
GOOD-BAD		HARD-SOFT		SLOW-FAST		BEAUT.-UGLY		STRNG.-WEAK		PASS.-ACTIVE.		PREF.	EXTENSION						
													PAST	FUTURE					
PRES.	FUT.	PAST	PRES.	FUT.	PAST	PRES.	FUT.	PAST	PRES.	FUT.	PAST	PRES.	FUT.						
6	1	3	1	4	5	6	2	4	4	1	5	4	1	7	7	7	PRES.	5 YRS.	7 YRS.
4	3	3	3	1	4	4	2	2	2	2	2	2	4	7	7	7	PRES.	1 DAY	1 DAY
1	1	4	6	4	7	7	3	1	1	1	3	1	1	7	7	7	PRES.	8 YRS.	14 YRS.
3	1	4	3	4	5	6	7	4	4	1	4	3	1	7	7	7	PAST	972 YRS.	20 YRS.
1	1	3	6	1	7	1	7	2	1	1	4	4	3	6	7	7	PAST	322 YRS.	25 YRS.
2	1	3	2	1	4	4	5	4	4	4	3	3	2	7	7	7	PAST	6 YRS.	15 YRS.
2	2	6	1	1	1	7	6	2	2	3	4	2	1	7	7	6	FUT.	4 YRS.	7 YRS.
4	3	2	6	5	7	7	3	6	2	1	1	1	1	2	3	5	----	50 YRS.	50 YRS.
3	1	4	3	4	4	5	4	2	4	2	4	4	4	7	7	7	FUT.	196 YRS.	5 YRS.
7	2	7	1	2	4	1	6	1	7	2	6	7	1	1	5	6	FUT.	400 YRS.	3 YRS.
2	2	2	3	4	1	4	4	5	4	4	1	3	4	7	7	7	PRES.	3 YRS.	2 YRS.
1	4	4	7	5	6	1	7	4	2	4	2	2	4	6	4	7	PRES.	8 YRS.	50 YRS.
2	2	4	4	4	2	5	5	2	2	2	2	2	2	4	4	6	PAST	5 YRS.	3 YRS.
1	2	4	3	2	6	7	5	4	4	2	3	2	3	6	7	6	PRES.	5 YRS.	11 YRS.

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APPENDIX TABLE 38

RAW DATA FOR SEMANTIC DIFFERENTIAL SCALES AND TIME MACHINE FOR SCHOOL #9 - W

SUBJ. NO.	SEMANTIC DIFFERENTIAL SCALES									PREF.	TIME MAC EXT PAST	
	KIND- CRUEL	GOOD- BAD	HARD- SOFT	SLOW- FAST	BEAUT. -UGLY	STRNG. -WEAK	PASS.- ACTIVE.					
	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.					
158	1 2 1	1 1 2	6 4 4	4 6 5	2 2 2	1 2 2	7 6 5	PRES.	17 YRS			
159	2 2 2	2 4 1	4 4 3	5 6 5	2 3 2	5 4 2	6 5 7	FUT.	3 YRS			
160	3 1 2	2 1 1	4 7 4	5 7 7	1 2 1	3 1 1	6 7 7	PRES.	1975 YRS			
161	3 4 2	4 5 2	3 5 6	7 2 6	4 6 4	2 5 2	3 2 5	PAST	1000 YRS			
162	4 3 2	3 5 3	6 3 5	6 3 5	3 4 4	5 5 4	2 5 7	FUT.	1975 YRS			
163	4 1 1	3 1 1	3 7 5	4 7 6	4 1 1	3 1 2	6 7 7	FUT.	10 YRS			
164	1 2 5	3 1 6	6 1 6	2 7 2	5 5 5	6 3 4	6 7 6	FUT.	8 YRS			
165	1 2 1	1 1 1	5 6 7	4 7 4	2 2 1	4 2 1	5 6 7	PAST	15000 YRS			
166	2 2 1	3 1 1	5 4 6	6 6 4	4 4 3	4 4 3	5 6 7	PAST	INFINITY			
167	2 2 1	1 2 1	3 2 2	7 7 7	2 2 2	2 2 2	7 7 7	FUT.	2 YRS			
168	3 2 2	3 2 2	6 2 2	5 6 6	3 2 2	4 2 2	5 5 6	PRES.	12 YRS			
169	2 4 2	2 5 2	3 5 2	5 6 5	4 5 3	2 5 3	6 6 6	PRES.	12 YRS			
170	5 4 3	6 4 3	5 4 4	4 5 4	7 6 5	6 5 4	2 3 4	FUT.	0			
171	4 4 1	1 4 1	7 1 7	7 1 1	1 4 1	4 4 4	7 4 7	PRES.	2 MINS			

12.

12.



APPENDIX TABLE 38

SEMANTIC DIFFERENTIAL SCALES AND TIME MACHINE FOR SCHOOL #9 - WHITE

SEMANTIC DIFFERENTIAL SCALES									TIME MACHINE		
									PREF.	EXTENSION	
										PAST	FUTURE
	HARD-	SLOW-	BEAUT.	STRNG.	PASS.-						
	SOFT	FAST	-UGLY	-WEAK	ACTIVE.						
FUT.	PAST	PAST	PAST	PAST	PAST	PAST	PAST	PAST			
	PRES.	PRES.	PRES.	PRES.	PRES.	PRES.	PRES.	PRES.			
	FUT.	FUT.	FUT.	FUT.	FUT.	FUT.	FUT.	FUT.			
2	6 4 4	4 6 5	2 2 2	1 2 2	7 6 5				PRES.	17 YRS.	10 YRS.
1	4 4 3	5 6 5	2 3 2	5 4 2	6 5 7				FUT.	3 YRS.	9 YRS.
1	4 7 4	5 7 7	1 2 1	3 1 1	6 7 7				PRES.	1975 YRS.	2000 YRS.
2	3 5 6	7 2 6	4 6 4	2 5 2	3 2 5				PAST	1000 YRS.	25 YRS.
3	6 3 5	6 3 5	3 4 4	5 5 4	2 5 7				FUT.	1975 YRS.	12 YRS.
1	3 7 5	4 7 6	4 1 1	3 1 2	6 7 7				FUT.	10 YRS.	65 YRS.
6	6 1 6	2 7 2	5 5 5	6 3 4	6 7 6				FUT.	8 YRS.	7 YRS.
1	5 6 7	4 7 4	2 2 1	4 2 1	5 6 7				PAST	15000 YRS.	13 YRS.
1	5 4 6	6 6 4	4 4 3	4 4 3	5 6 7				PAST	INFINITY	65 YRS.
1	3 2 2	7 7 7	2 2 2	2 2 2	7 7 7				FUT.	2 YRS.	10 YRS.
2	6 2 2	5 6 6	3 2 2	4 2 2	5 5 6				PRES.	12 YRS.	13 YRS.
2	3 5 2	5 6 5	4 5 3	2 5 3	6 6 6				PRES.	12 YRS.	6 YRS.
3	5 4 4	4 5 4	7 6 5	6 5 4	2 3 4				FUT.	0	5 YRS.
1	7 1 7	7 1 1	1 4 1	4 4 4	7 4 7				PRES.	2 MINS.	2 MINS.

APPENDIX TABLE 39

RAW DATA FOR SEMANTIC DIFFERENTIAL SCALES AND TIME MACHINE FOR SCHOOL #6 - W

SUBJ. NO.	SEMANTIC DIFFERENTIAL SCALES									PREF.	TIME MAC EXT PAST	
	KIND- CRUEL	GOOD- BAD	HARD- SOFT	SLOW- FAST	BEAUT. -UGLY	STRNG. -WEAK	PASS.- ACTIVE.					
	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.	PAST PRES. FUT.					
172	2 1 1	1 2 2	6 6 6	6 5 5	2 2 1	1 1 1	4 6 7	PRES.			18 YRS	
173	2 2 2	2 2 2	4 4 3	6 7 6	2 2 2	2 2 2	6 7 7	PRES.			4 YRS	
174	2 2 3	5 2 3	5 5 4	6 4 5	4 4 2	4 3 2	3 5 6	FUT.			10 YRS	
175	3 1 2	2 2 1	3 2 3	7 7 6	2 2 2	2 1 2	7 7 7	FUT.			3 YRS	
176	2 2 3	1 3 1	4 6 7	3 7 7	4 4 1	3 5 2	3 7 7	PAST			30 YRS	
177	3 3 4	2 6 1	6 6 3	4 7 6	5 5 3	5 5 2	5 4 5	PAST			16 YRS	
178	2 2 1	2 1 1	2 2 7	7 7 7	2 2 1	2 2 1	1 6 7	FUT.			1 YR.	
179	3 3 3	3 2 3	4 3 3	5 6 5	3 3 3	3 3 2	6 5 6	PRES.			4 YRS	
180	1 3 3	2 2 2	4 4 3	4 5 5	2 3 3	1 4 2	7 7 6	PRES.			102 YRS	
181	5 2 2	5 2 2	5 5 3	2 6 3	5 3 2	3 3 2	4 6 7	PAST			152 YRS	
182	4 3 1	4 3 2	3 5 5	6 6 5	4 3 3	5 4 2	5 6 5	FUT.			4 YRS	
183	3 3 3	2 2 1	1 2 2	2 6 6	2 4 2	2 2 2	5 7 7	PAST			10 YRS	
184	4 4 4	4 4 4	4 3 1	3 6 7	4 4 4	5 2 1	2 2 1	FUT.			4 YRS	
185	3 2 2	2 1 1	5 5 4	4 4 5	4 3 3	3 3 3	5 5 6	PRES.			3 YRS	

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APPENDIX TABLE 39

SEMANTIC DIFFERENTIAL SCALES AND TIME MACHINE FOR SCHOOL #6 - WHITE

SEMANTIC DIFFERENTIAL SCALES												TIME MACHINE								
HARD- SOFT			SLOW- FAST			BEAUT. -UGLY			STRNG. -WEAK			PASS.- ACTIVE.			PREF.			EXTENSION		
															PAST		FUTURE			
PAST	PRES.	FUT.	PAST	PRES.	FUT.	PAST	PRES.	FUT.	PAST	PRES.	FUT.	PAST	PRES.	FUT.	PAST	PRES.	FUT.			
6	6	6	6	5	5	2	2	1	1	1	1	4	6	7	PRES.	18 YRS.		1	SEC.	
4	4	3	6	7	6	2	2	2	2	2	2	6	7	7	PRES.	4 YRS.		10	YRS.	
5	5	4	6	4	5	4	4	2	4	3	2	3	5	6	FUT.	10 YRS.		10	YRS.	
3	2	3	7	7	6	2	2	2	2	1	2	7	7	7	FUT.	3 YRS.		4	YRS.	
4	6	7	3	7	7	4	4	1	3	5	2	3	7	7	PAST	30 YRS.		10	MINS.	
6	6	3	4	7	6	5	5	3	5	5	2	5	4	5	PAST	16 YRS.		5	YRS.	
2	2	7	7	7	7	2	2	1	2	2	1	1	6	7	FUT.	1 YR.		15	YRS.	
4	3	3	5	6	5	3	3	3	3	3	2	6	5	6	PRES.	4 YRS.		1	MO.	
4	4	3	4	5	5	2	3	3	1	4	2	7	7	6	PRES.	102 YRS.		24	YRS.	
5	5	3	2	6	3	5	3	2	3	3	2	4	6	7	PAST	152 YRS.		29	YRS.	
3	5	5	6	6	5	4	3	3	5	4	2	5	6	5	FUT.	4 YRS.		1	YR.	
1	2	2	2	6	6	2	4	2	2	2	2	5	7	7	PAST	10 YRS.		12	YRS.	
4	3	1	3	6	7	4	4	4	5	2	1	2	2	1	FUT.	4 YRS.		25	YRS.	
5	5	4	4	4	5	4	3	3	3	3	3	5	5	6	PRES.	3 YRS.		3	YRS.	