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ATTITUDES OF STUDENTS STUDYING
HUXLEY'S BRAVE NEW WORLD:
AN ANALYSIS

BY

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A thesis submitted
in partial fulfillment of the requirements for the
degree Master of Science, Department of
English, South Dakota State
College of Agriculture
and Mechanic Arts*

June, 1959

266/23

**ATTITUDES OF STUDENTS STUDYING
HUXLEY'S BRAVE NEW WORLD:
AN ANALYSIS**

This thesis is approved as a creditable, independent investigation by a candidate for the degree, Master of Science, and acceptable as meeting the thesis requirements for this degree; but without implying that the conclusions reached by the candidate are necessarily the conclusions of the major department.

Thesis Adviser

Head of the Major Department

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D. K. A.

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CHAPTER I

THE PROBLEM

Origin of the Problem

The central concern of this study will be this: "Will the study of a specific work of literature have a statistically significant effect upon the attitudes of students toward the problems dealt with in that work?"

This problem grew out of a consideration of the difficulties involved in an earlier and now-discarded study. A choice of whether to use Aldous Huxley's Point Counterpoint or his Brave New World was to be made, and Point Counterpoint seemed the better choice for that study; but the book chosen had to be taught to freshman English students. The immediate problem was one of whether Point Counterpoint could be taught successfully to these students.

The question was one of whether the students at this college, with their attitudes and backgrounds, would be interested in or able to understand the complex of ideas expressed in the novel. Aldous Huxley, who will be discussed in a more detailed fashion below, shows himself to be extremely worldly, sophisticated, and erudite in Point Counterpoint. It was assumed that most of the students who would be asked to read the book would have

attitudes opposed to Huxley's in the extreme--that they would be unworldly, unsophisticated, and far from erudite.

This assumption was based on four quarters' teaching experience in lower level freshman English courses, an admittedly meager amount; but it was corroborated by reference to recent studies of student values and attitudes. Philip E. Jacob, for example, in his Changing Values in College, gives a profile of the values of the American college student that, he writes, ". . . may apply to 75 per cent or 80 per cent of them."¹ In it he reports that students are "gloriously contented," "supremely confident that their destinies lie within their own control," "unabashedly self-centered." He writes that they believe in the efficacy of a college education but that few of them value college education for its intellectual contribution. They express a need for religion and value traditional moral virtues, but cheating is the rule rather than the exception.²

The immediate problem, then, became one of whether a highly sophisticated novel could be made meaningful to relatively unsophisticated students. Point Counterpoint is a novel of ideas, and the ideas are, for the most part, those that were of import to sophisticated and intellectual persons in the decade following the First World War. Its characters consist primarily of wealthy urbanites;

its plot is made up of variations on a theme, and the theme is a relatively complicated idea, probably not easily apprehended by persons to whom it might best apply, the students who were to read it, for example. It seemed that this novel would not be meaningful to the students who had to be dealt with--students in general no more than 20 years old; students attending a relatively small college of agriculture and mechanic arts; students from a primarily agricultural and generally conservative midwestern state.

The other possibility--Brave New World--on the other hand, is relatively simple. Although it is, naturally, out of the realm of the student's experience, it might pass at first glance for science fiction. It has a plot, which, in the ordinary sense of the word, Point Counterpoint does not. And Brave New World deals directly with political, social, intellectual, and economic problems. It was felt that students would be more likely to be concerned with these problems than the complicated spiritual problems of Point Counterpoint.

Investigation of the Problem

The question of how the gap between the students' interests and experiences and the ideas and events in Point Counterpoint or Brave New World, might be bridged immediately admitted, it seemed, of a logically prior and

more crucial question: "Can students' values and attitudes be changed by their classroom work in college?"

Investigation of this problem revealed two things. First, there was little available information on this question. Until recently it had been tacitly assumed by most teachers that one of the compensations of teaching was that the teacher could have a far-reaching influence on his students, that he could, in a word, mold character. Franklin Henry Giddings, writing in 1929, stated that values and personality make-up account for the difference in ability to get a liberal education. Of teaching values, he writes that the teacher ". . . will expose the student mind to them and let them proclaim themselves."³ Ordway Tead, in 1949, wrote:

In all . . . disciplines where the students' familiarity with ideas is being sought by the teacher, such familiarity is unimportant and ineffectual unless and until it has resulted in some change in the attitudes which control the learner's overt decisions.

Both these men emphasized the importance of values, and both assumed that value changes can and do occur. The second thing found was that there has been, recently, an attempt to discover, through controlled, scientific investigation, precisely what the effect of college on student values is.

Philip E. Jacob's Changing Values in College (1956) defined "values" as ". . . preferences, criteria or

choices of personal or group conduct."⁵ His study attempted to measure the effect of social science courses for the non-major on students' value patterns. On-the-spot data were gathered from 30 institutions.

Jacob's findings indicated that college education does change values slightly, but that the basic values of the graduating senior are in general little different than those with which he entered college:

The overall conclusion of this study is that college does make a difference--but not a very fundamental one for most students. Basic values remain largely constant through college. The changes which do occur bring greater consistency into the value-patterns of the students and fit these patterns to a well-established standard of what a college graduate in American society is expected to believe and do. But the college student is not front-runner in a broad forward movement of values within the culture at large.⁶

Jacob's basic stand, then, is that college has little overall effect on students' character or value patterns. He does not hold that values can not be altered, but he does state that they usually are not.

A more recent study, and one that holds a differing view, is Edward D. Eddy's The College Influence on Student Character (1969). Mr. Eddy defines "character" as ". . . intelligent direction and purposeful control of conduct by definite moral principles."⁷ In other words, it is behavior based on basic value judgments.

Instead of basing its findings on test data, as Jacob's study did, Eddy's involved actual participation

in campus life, supplemented by interviews with students and faculty members. Twenty colleges were surveyed in this fashion--state-supported, denominational, large and small.

The College Influence on Student Character does not deal explicitly with the problem of whether values or character can be changed. The assumption that they can underlies the book, and the book itself is a study of how character changes are to be brought about. It deals with what is necessary, from the standpoint of the students, the faculty, and the college, to implement change. That change can take place is taken for granted:

One perplexing failure of the college, and one of its greatest challenges, is the development of critical, active, and inquisitive minds. This, we believe, is possible in vocational preparation as well as in liberal education. It is a matter of approach, of emphasis on principles, not a possibility limited to certain disciplines and fields of study.

It seemed that there was by no means a certain answer to the problem of whether values and attitudes can be changed, and there was a striking diversity of opinion between the two studies which dealt with the matter. Further investigation, it was felt, would be welcome.

Statement of the Problem

Thus, the focal point of this study shifted from

attempting to discover a satisfactory method of teaching a difficult piece of literature to attempting to discover whether the study of a particular piece of literature could alter student attitudes.

But in order to allow controlled investigation, the problem had to be refined and stated more precisely. It was necessary to decide whether the effect of the teaching method or of the piece of literature was to be measured. It was decided, for two reasons, not to attempt to measure the effect of various teaching methods on student attitudes. In the first place, Philip Jacob, in a section of his study entitled, "Research Which is NOT Needed," writes this about the influence of different methods of instruction:

Research on this subject has reached a high point of refinement, and has been conducted at a wide variety of institutions. While the verdict is not unanimous, the evidence is quite strong that none of the major techniques of instruction has an effect on students' values so consistently and substantially different from others that it deserves more intensive appraisal than it has so far received.

Second, if more than one instructor were employed in the experiment, balancing the sections and controlling the instructors involved would have been difficult, if not impossible. It was decided to test the effectiveness of a piece of literature, taught by a number of methods, in changing student attitudes.

Stated as succinctly as possible, then, the problem

of the study became, "Will the study of a specific work of literature have a statistically significant effect upon the attitudes of students toward problems dealt with in that work?"

"Teaching" here means the interpretation and explanation by any number of methods of the ideas involved in the work. The specific work of literature is the one employed in this study, Aldous Huxley's Brave New World, and the problems, specifically, are those of cliché acceptance, conformity, authoritarianism, materialism, and the relationship of science and art.

FOOTNOTES

¹ Philip E. Jacob, Changing Values in College, p. 5, The Edward W. Hazen Foundation: New Haven, 1956.

² Ibid., passim.

³ Franklin Henry Giddings, The Mighty Medicine, p. 61, The Macmillan Company: New York, 1929.

⁴ Ordway Tead, College Teaching and College Learning, p. 26, Yale University Press: New Haven, 1949.

⁵ Jacob, op. cit., pp. 55-56.

⁶ Ibid., p. 40.

⁷ Edward D. Eddy, The College Influence on Student Character, p. 2, American Council on Education: Washington, D. C., 1959.

⁸ Ibid., p. 179.

⁹ Jacob, op. cit., p. 131.

CHAPTER II

PROCEDURES

Selection of the Author

Because of his wide range of subject matter, his skill at manipulating ideas, his unorthodox views, and his deep concern over values and attitudes, Aldous Huxley was selected as the author to be used in this study.

In his course from cynicism to mysticism, Huxley has dealt with, in one way or another, most of the important intellectual problems of the twentieth century. His reading background is vast. He is a critic of painting, music, literature, and architecture. He is concerned with religion, ethics, politics, education, economics, philosophy, sociology, history, psychology, and the physical sciences. His work is at times amusing, shocking, profound, thought-provoking; if nothing else, he is extraordinarily erudite.

It was felt that at least some of these qualities might stimulate student interest and that his concern for values and attitudes might warrant examination, by the students, of their own value systems and attitudes.

Huxley's views on education fit in well with the central concern of this study. It has been his feeling that specialization is an evil that robs education of

what value it might have. The specialist, especially in the physical sciences or in trade-learning, ought to be given the opportunity to evaluate and change his value system. In a section on education in his book, Tomorrow and Tomorrow and Tomorrow, Huxley wrote:

. . . the only question that really matters, the only question whose correct answer can exert a civilizing influence on the future specialist, is the question asked by Buddha and Jesus, by Lao-tzu and Socrates, by Job and Aeschylus, and Chaucer and Shakespeare and Dostoevsky, by every philosopher, by every mystic, every great artist: Who am I and what, if anything, can I do about it?¹

A closer look at Huxley's spiritual and intellectual development will show that his central concern has been directly with value systems.

Aldous Huxley was born in Surrey, England, in 1894. Thomas Henry Huxley, the popularizer of Darwin, was his grandfather. He is the nephew of Matthew Arnold and the younger brother of Julian Huxley, the biologist. Educated at Eton and Oxford, he had planned to become a physician; but when he was 18 he was struck with a disease that rendered him totally blind. After partial recovery of the use of one eye, he entered Oxford and studied English literature, emerging in four years with the first prize in that subject. He was employed for a short time as a critic for the Athenaeum, but he resigned to devote himself to study, writing, and travel. He finally settled in the United States, near Los Angeles, after

coming here to study with a man named Bates, who claimed to have a revolutionary method of curing optical defects. Huxley did, in fact, regain near-normal sight. In short, he is one who has devoted most of his life to extensive travel, wide reading, and voluminous writing. He comes out of a family tradition of interest in things intellectual. His physical debility removed him from active participation in the day-to-day affairs of normal men, but it evidently gave him an opportunity to observe and comment on these affairs.

Huxley's first published work, a group of poems, came out in 1916; his latest, a book of essays, was published in 1958. In the years between, he has published 10 novels, 15 books of essays, five books of collected short stories, two books of travel, one anthology of verse, one biography, one history, two books of poetry, and three dramas. It is beyond the scope of this study to attempt to give thorough attention to all of Huxley's work, or even a part of it; rather, it will consider the development of Huxley's thought, in very general terms, over this 42 year period.

The development of Huxley's concern over values can be divided into three arbitrary periods: cynicism, despair, and loss of traditional values (1916-1928); social concern, with a continued search for meaning, (1929-1938); and mysticism, in which Huxley found a

personally satisfactory value system (1939-1959).

The first period includes a little more than the decade following World War I. In it, Huxley was concerned with an exploration of the chaotic and apparently meaningless post-war world. World War I shattered the value systems of the intellectuals, at least. Orthodox Christianity and attempts to find "greater good" seemed inadequate to him, and because they seemed so, were. Freud and Pavlov had rendered Romanticism and Idealism untenable. Systems of art, knowledge, or education, though perhaps interesting and useful, failed to bring order out of the existing chaos. And the result of all this was a giant despair and ennui. In this setting, Huxley began his career.

In the first period there are two divisions of Huxley's search for meaning, each covered by two novels. (These arbitrary periods are marked by the publication of novels, which, in general, are closely related to Huxley's other works.) In Crome Yellow (1921) and Antic Hay (1923), one finds an attempt to catalogue evil and pointlessness. The characters are incapable of meeting and solving their problems because there is no order or meaning in the world, for the traditional values are gone. There is a preoccupation with the revolting, the bizarre, the grotesque, the false and stupidity in life.

The two later novels, Those Barren Leaves (1925) and Point Counterpoint (1928), are still catalogues of evil and pointlessness, but they differ from the earlier novels in that they offer a standard, a tentative value system, against which the characters are played off; they are attempts to find meaning rather than to deny it.

In these two later novels, Huxley enunciated two ideas which have been central in his thought since. The first of these ideas is that, compared to reality, which is infinitely complex, our intellectual abstractions of it are childishly simple. And unfortunately, a man's tendency is to substitute his intellectual abstraction for reality itself. Those Barren Leaves deals with the inability of the characters to recognize or cope with the complexity of reality. Insofar as they substitute their intellectual abstractions or oversimplified concepts of reality for reality itself, they are failures.

The second idea is that, in order to lead a successful life, one must consider all aspects of reality. It is possible, for example, to value only spiritual manifestations of reality and ignore physical reality, but the ideal man will value all aspects of reality equally. If he emphasizes one aspect only, he is not an ideal man.

In this early period, then, Huxley was searching

for meaning, for answers to the problems presented to his generation by the brutal facts of the twentieth century. Huxley had some answers by the end of this period, but they were foundations for further development rather than final ones.

The second period, which includes Brave New World (1932) and Eyeless in Gaza (1938), is one of growing social concern. Brave New World is a criticism of man's slothfulness and unawareness (a "deadly sin," incidentally, for Buddhists) and society's unconcern for the individual. The central concern of Eyeless in Gaza is over the tendency in men to violence and misuse of the self. In both books, especially in Eyeless in Gaza, there is a marked difference in attitude toward the characters' weaknesses and their searches for meaning: sympathy, rather than ridicule, is the keynote.

In Brave New World, Huxley followed the trends in contemporary society to what seemed to him their logical conclusions--a benevolent totalitarianism, under whose rule freedom, the intellect, emotions, and the spirit are things of the forgotten past. Men are machines, conceived, born, conditioned, directed by and dependent upon the State. In a few areas there are Savage Reservations; but one finds there not normality, but savagery. Thus the characters of the book are given freedom to

choose, some of them at least, one kind of evil or another. Huxley described the central issue of the book in this way: ". . . this idea, that human beings are given free will in order to choose between insanity on the one hand and lunacy on the other, was one that I found amusing and regarded as quite possibly true."²

Eyeless in Gaza follows the protagonist from the realization that his past life has been wasted to the beginning of a meaningful existence. Through an interest in pacifism, he comes to an understanding of much of the failure that comprises Western history. This important idea, namely, is that ends and means have an extremely close relationship; in fact, they can not be separated. Means determine ends.³ Many of the political tragedies of the last few hundred years were the direct result of failure to understand or recognize this fact of existence, Huxley felt.

Another important idea from this novel is one of "proper use of the self," which involves physical and spiritual training rather like yoga. This idea is important, not so much for itself, but because it clearly serves as a transition from the earlier idea of Point Counterpoint--that all aspects of reality must be valued--to Huxley's later mysticism.

In spite of Huxley's movement away from cynicism and toward concern for the problems facing all men, he

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In spite of Huxley's movement away from cynicism and toward concern for the problems facing all men, he

failed, in this period, to find a satisfactory answer or system. Brave New World presents a dilemma, a choice between lunacy and insanity. Eyeless in Gaza presents solutions, but they are not satisfactory: preaching that means determine ends fails to deter men from their propensity for violence, and "proper use of the self" is neither philosophically nor religiously complete.

The middle period, though full of ideas and interesting to study, is not as clearly defined as are the earlier and later periods. It retains, from the earlier period, much of the focus on gratuitous evil, the loss of traditional values, and the squalor of modern life. At the same time, it clearly points forward to Huxley's conversion to mysticism. In this period he is concerned with the coexistent unity with and separateness from the rest of the world. He shows a continued dislike for individual men coupled with a real concern for the condition of mankind.

In the final period, the novels are not indicators of the progress of Huxley's thought as they were in the earlier periods. The main reason is that Huxley has found the answers that he had been seeking; consequently, there is no tracing of ideas to be done. The novels present the same idea again and again. The solution that Huxley embraced is a mysticism of an Oriental cast, based primarily on Buddhistic teachings.⁴

Huxley's mysticism postulates three levels of existence and reality: the physical, the human, and the divine. The final end of man is to live compatibly with or on all three levels. Man must take into consideration his being as an animal, as a mere portion of the physical universe. Equally important, he must take into account his role as a human being having relationships with and effects upon other human beings. Most important, he must recognize and become one with the ultimate; he must live in unity with the divine. There is a ranked order here, from physical to divine, but it is important to take all three into account. The worst man pays attention only to physical reality; the good man lives as best he can on the human level, recognizing the importance of the physical; but the best man lives in unity with all three levels. For divinity is ultimate reality, the final unity.

Huxley's mysticism, with its conception of reality and virtue, allows him, in the simplest terms, to have his cake and eat it too. It is possible for him to hold the same view that he held about most of humanity in the early period--that human beings in general are stupid, vicious, and thoughtless--and maintain his concern over the human condition and his near worship of the accomplishments of human genius. This ambivalent attitude is justified by attributing acts to men living on either

the physical level in the first case or the human level in the second. Mysticism, in a word, allows Huxley to be a part of humanity and to dissociate himself from it. He has personal salvation which does not require that he love mankind.

In summary, Huxley's main concern, throughout his career, has been a search for meaning, for a replacement for the traditional but no longer useful values. Because of his interest in values and attitudes and the way that he presented his concern, he was selected as the author to be used in this study. It seemed that he would be an ideal one.

Selection of the Book

Several things were considered in the selection of Brave New World as the text. It was felt, in the first place, that Brave New World is the simplest, that is, the least demanding of Huxley's novels. Less experience and less background are required for an understanding of this novel than any of the others.

Although it was published 27 years ago, it deals with problems that are as pressing, if not more pressing, now than at the time of its publication. In other words, the book is not dated.

Brave New World came out of Huxley's middle period. It was written after he had finished with pointing out

that there were no solutions to problems but before he became dogmatic about presenting answers.

Most important, the novel deals specifically and at length with what is valuable--basic value judgments. The central problem in Brave New World is whether freedom, high art, pure science, emotion, and religion are more valuable than contentment, material well-being, and stability.

Philip Jacob's Changing Values in College gives a profile of student values which indicates that the students, in general, tend to value contentment, stability, formal religion, and material well-being; to be confused about personal freedom and the morality of armed might directed by a powerful central government; to be unconcerned with things intellectual.⁵

Brave New World evidently attacks those things which most students agree are valuable and should at least be thought-provoking in areas where there is not general agreement about what is valuable.

In addition, the book deals with the application of technology to human beings. All of the problems are stated in human terms. Huxley has written that students will be most likely to be interested in what is valuable if the problem is so stated. In Ends and Means he wrote:

Man is the only subject in which, whatever their type or the degree of their ability, all men are interested. The future engineer may be unable or unwilling to go far into the study

of the laws of the material universe. There will be no difficulty, however, in getting him to take an interest in human affairs. It is, therefore, in terms of human affairs that his technical education can best be liberalized.⁶

For these reasons, then, Brave New World clearly seemed to be the best choice for the purposes of this study.

Building, Administering, and Scoring the Questionnaire

With the author and the text decided upon, the problem became one of finding how to test whether the study of the novel would have an effect upon student attitudes. The first step was to discover whether attitudes could be measured accurately.

Investigation showed that attitude scales are in wide use and that there are several standard methods for testing attitudes. Three techniques, the Thurstone, Likert, and Guttman techniques, are standard procedure for the measurement of attitude, with the Thurstone and Likert techniques being most widely employed.⁷

If the Thurstone technique is employed, the respondent is asked to select the given statements with which he agrees. The statements have previously been assigned a numerical ranking by a panel of judges. The respondent can be placed or ranked on a continuum that runs from favorable through neutral to unfavorable attitudes toward the subject being tested.

With the Likert technique, the respondent is asked to select a response to each statement on the questionnaire; usually the choices are strong agreement, agreement, neutrality, disagreement, and strong disagreement. A numerical value can then be assigned to each response and the respondent given a score that indicates the degree of his favorableness or unfavorableness toward the attitudes being tested.

Because the correlation between the two kinds of scales is high, the relative merits of one over the other depend upon the kind of study being conducted. The Thurstone technique, for example, can be used to sample attitude toward only one thing at a time. If one wished to test attitudes toward four things, four separate administrations of questionnaires would be necessary. In addition, the construction of a Thurstone questionnaire is more time-consuming than the construction of a Likert questionnaire.

There are three major difficulties involved in attitude testing. It is nearly impossible, in the first place, to determine whether the attitudes revealed by an attitude scale are public or private. In general, it is said that attitude scales measure public statement of attitudes, that they are not reliable as measures of private attitudes, those which govern behavior. Second, attitude scales cannot be valid measures of the depth or

intensity of the attitude. Neutral attitudes may indicate ignorance of the problem or conflicting attitudes. The only interpretation that can be made of a neutral score is that the respondent is not consistently extreme in his responses. The third, and perhaps most severe, limitation of attitude scales is that the response is made to a verbal symbol rather than to what is symbolized. A whole complex of attitudes may come into play as a reaction to a statement, whereas a situation or an object might involve only one.

Nonetheless, if some care is exercised in the construction of the questionnaire and the subject feels no need to make a dishonest response, attitude scales are fairly reliable indicators of attitudes.

For this study, the Likert technique was selected because of the relative ease of its construction and because more than one attitude was to be tested at a time.

The first step in building the questionnaire was the selection of the attitudes to be tested. The problem was whether the study of a specific work of literature would have a statistically significant effect upon the students' attitudes toward the problems dealt with in that work. Several of the central ideas in Brave New World were extracted and, through a process of oversimplification, reduced to one word or phrase each. The

specific problems dealt with in the work of literature became, by arbitrary reduction, materialism, conformity, cliché-thinking, authoritarianism, and the relationship of science and art.

Nine department members⁸ were asked to submit statements whose answers would indicate an attitude toward the problems--materialism, conformity, etc. In this fashion, 74 statements were gathered, of which 14 were discarded because of repetition. The remaining 60 statements were then typed into a Likert attitude scale which was administered to 10 sections of English II.⁹ The questionnaire asked for no information about the subjects, and the subjects were given no information about the questionnaire except instructions. (Appendix A shows a sample of the questionnaire consisting of 60 statements that was administered to English II students.)

The questionnaires, after their administration, were scored, sorted by score, and an item analysis was performed on the 50 questionnaires with the lowest scores and the 50 with the highest, a high score indicating a favorable response. The 20 statements that showed the highest scores for questionnaires with high overall scores and the lowest scores for questionnaires with low scores were retained as statements to be used in the final questionnaire in the study itself.¹⁰ (A sample of the 20-statement questionnaire may be seen in Appendix B.)

This 20-statement questionnaire was administered to all sections of English VI at the beginning of the Spring Quarter, before the unit on Brave New World had begun. Also, identical questionnaires were administered, on the same day, to two sections of English III, where the unit on Brave New World was not to be employed. The subjects were told only that they were being asked to help in a study that was being performed. They were neither asked for their names nor told that the questionnaire had anything to do with Brave New World. They were, however, asked for their exact age, home town, and class rank so that the retake could be matched with the original.

The unit on Brave New World was taught by eight instructors. Although a departmental schedule and test were used, nothing else was prescribed by the department. Each instructor taught his classes in his own way, emphasizing what seemed important to him.

Because the reading assignments in Brave New World were short, most instructors asked their students to give reports on historical or literary allusions in the novel. During the unit on Brave New World one theme was written, and all instructors used the book as a general topic. A list of ideas that the instructor might emphasize was circulated, but the instructors were under no obligation to use it.

Aside from the common materials listed above, each section was an independent unit, handling the text as the instructor saw fit. (Appendix D contains a sample of the assignment sheet, the suggestion sheet, and part of the unit test.)

Twenty-one days later, on the same day that the unit test on Brave New World was given, the students were asked to fill out a second questionnaire, identical to the first. They were again told only that the questionnaire was a part of a study that was being performed. They were, of course, aware that the questionnaires were similar, if not identical. And an identical questionnaire was administered to the two sections of English III that had been previously tested.

In one section of English VI the questionnaire was not administered, and some of the retakes could not be matched with originals. In all, 55 cases were lost; the final sample consisted of 254 cases in English VI and 36 cases in English III.

The scores on the original questionnaire were each added, and the same was done for scores on the retake-- first by sections and finally for the entire sample. The total for each section was divided by the number of students in the section, and the total for the sample was divided by the number of students in the sample. Thus the score on the original and the retake could be reported

for individual cases, and an arithmetical mean for each section and the total sample could be given for the original and the retake.

Scores which fell below and included the mean score for each section and those that fell above it were separated. The amount of change for each score below the mean was added, and the sum was divided by the number of cases. The same procedure was followed with the scores above the mean, and it was possible to report the amount of change below and above the sectional mean for each section and for the entire sample.

In view of the fact that almost all cases were included in the sample, no statistical manipulations seemed necessary. In the interest, however, of refinement of the questionnaire, simplicity, and validity of the findings, one further operation was undertaken.¹¹

The frequency of each of the five responses to each statement was tabulated for both the original questionnaire and the retake. Thus, the number of respondents who marked "strongly agree," "agree," "undecided," "disagree," and "strongly disagree" on each of the 20 statements and on both administrations of the questionnaire was known. This information was then subjected to a chi square test, which is one designed to test whether the difference between observed and expected results is a significant one. The substitution of "first

administration" and "second administration" for "observed" and "expected" and the performance of the chi square manipulations permitted three things: first, those questions which showed no significant difference between the first and second administrations of the questionnaire could be eliminated, thus refining the questionnaire; second, the first administration of the questionnaire served as a control on the second, and the control group could be dropped, thus simplifying the procedure; and third, the questionnaires could be rescored in terms of those questions which showed significant change, and the change for individuals, sections, and the entire sample, if any, could be called "significant," thus giving the results statistical validity and preparing firmer ground for inference from the findings of the study.

The statement of the null hypothesis in this case was, "There will be no significant difference in the number of favorable responses to statement 1 (or 2, etc.) between the first and second administrations of the questionnaire." Because the data involved were non-normal, the 10 per cent level of confidence, adequate when the normal curve is assumed, allowed too great a margin of error. Therefore, the null hypothesis was rejected only at the five per cent level or better. The null hypothesis was accepted on statements 2, 7, 8, 9, 14, 15, 16, 17, 19, and 20. It was rejected on state-

ments 1 (at better than the one per cent level), 3 (at better than the one per cent level), 4 (at the five per cent level), 5 (at the two per cent level), 6 (at the two per cent level), 10 (at better than the one per cent level), 11 (at better than the one per cent level), 12 (at better than the one per cent level), 13 (at better than the one per cent level), and 18 (at better than the one per cent level).

The questionnaires were rescored in terms of the 10 statements that had shown significant change between the original and the retake. (Appendix C lists the 10 statements that showed significant change.) The same operations were performed on the scores from the 10 statements showing significant change, hereafter called the refined questionnaire, as on the scores from the 20-statement questionnaire, hereafter called the total questionnaire; and scores could be reported by individual, by section, and for the entire sample. Also, differences in change above and below the sectional mean were figured on the refined questionnaire.

The process described above was not one designed to influence findings. It was simply a step taken to determine whether change that took place was statistically significant or due to chance. Without this operation, little could have been said about the change that did occur.

Finally, two minor manipulations were performed on the data. The percentage of scores that changed favorably, unfavorably, or that did not change at all was calculated for each section of English VI and for the entire sample on both the total and refined questionnaires. Second, sectional change on the refined questionnaire was listed by instructors.

In short, these things were done: the problem was investigated and stated, the author was chosen, the text was chosen, an attitude questionnaire was constructed and administered, and the raw scores were manipulated so as to make them meaningful. The findings and conclusions of this study will be found in Chapter III.

FOOTNOTES

¹Aldous Huxley, Tomorrow and Tomorrow and Tomorrow, pp. 124-126, Harper and Brothers: New York, 1956.

²Aldous Huxley, "Foreward", Brave New World, pp. vii-viii, Harper and Brothers: New York, 1946.

³Aldous Huxley's Ends and Means, Harper and Brothers: New York, 1937, gives a full discussion of this point; in addition, it is a summation of his thought in this period.

⁴Aldous Huxley's The Perennial Philosophy, Harper and Brothers: New York, 1946, is the key to his thought in this later period.

⁵Philip E. Jacob, Changing Values in College, passim, The Edward W. Hazen Foundation: New Haven, 1956.

⁶Aldous Huxley, Ends and Means, p. 231, Harper and Brothers: New York, 1937.

⁷This information on attitude tests came from two sources: Mildred Parten's Surveys, Polls, and Samples, Harper and Brothers: New York, 1950, and Lee J. Cronbach's "Self-Report Techniques: Attitudes", Essentials of Psychological Testing, pp. 368-386, Harper and Brothers: New York, 1949.

⁸Mr. Harrison, Mr. Shane, Mr. Phillips, Mr. Davies, Miss Brown, Mr. Brickwedel, Mr. Daniel, Mrs. Nagle, and Mr. Adams.

⁹Freshman English students at South Dakota State College are sectioned into a lower level (I-II-III) sequence or an upper level (IV-V-VI) sequence. Whether a student goes into lower or upper level English is determined by his score on the English Placement Test, which is administered to all incoming freshmen. Roughly speaking, the students with the upper 35 per cent of the scores are placed in English IV-V-VI. The remaining 65 per cent are placed in English I-II-III.

¹⁰The procedure for the construction of the questionnaire follows that outlined in Mildred Parten's Surveys, Polls, and Samples, p.194. A further refinement might have been undertaken: the correlation of individual responses with the score for the questionnaire. Instead, another technique was employed; discussion

of it follows in the body of this study. It was felt that the attitude scale did not need to be a precise indicator of attitude, for this study is concerned with change in existing attitudes rather than measurement of them.

11This process is taken from Henry E. Garrett's Statistics in Psychology and Education, pp. 253-256, Longman's, Green and Company: New York, 1958.

CHAPTER III

FINDINGS, CONCLUSIONS, AND SUGGESTIONS FOR FURTHER STUDY

Findings

The findings of this study indicate that there was change overall on the total questionnaire, that there was statistically significant overall change on the refined questionnaire, and that most of the change that took place occurred below the sectional mean. "Change" here means upward or favorable change--upward movement in score indicating a favorable change in attitudes.

Although there were some striking individual cases of favorable change, the overall change on the total questionnaire was slight, less than the change in English III, where Brave New World was not studied. The overall change in English VI was 1.9; in English III it was 2.4. So there was change in the expected direction on the second administration of the questionnaire, but less overall than in English III. Some sections of English VI changed more than the sections of English III, but the only valid conclusion that can be drawn is that there was a slight upward change for the whole sample with some striking individual cases. Table I shows mean change, section by section, on the total questionnaire. (For individual cases, section by section, see Appendix E,

tables I-XV.)

TABLE I. MEAN CHANGE, SECTION BY SECTION, ON THE TOTAL QUESTIONNAIRE

Section	Original mean	Retake mean	Change
40	66.8	67.1	.3
42	71.6	71.7	.1
43	68.7	70.1	1.4
44	72.0	72.5	.5
45	69.0	71.7	2.7
46	73.3	73.1	-.2
47	69.6	73.2	3.6
48	65.5	66.7	1.2
49	66.6	70.8	4.2
50	69.1	71.2	2.1
53	68.4	72.4	4.0
54	68.8	70.4	1.6
55	71.3	75.4	4.1
3*	60.1	62.1	2.0
15*	65.0	67.8	2.8

*These are the two sections of English III.

The chi square manipulations indicate that any change on the refined questionnaire is statistically significant. Here, an overall change of 1.9 was found, and there was favorable change in all sections but one.

Table II shows mean change, section by section, on the re-fined questionnaire. (For individual cases, see Appendix E, tables XVI-XXVIII.)

TABLE II. MEAN CHANGE, SECTION BY SECTION, ON THE RE-FINED QUESTIONNAIRE

Section	Original mean	Retake mean	Change
40	33.3	34.8	1.5
42	36.7	36.6	-.1
43	33.4	35.6	2.2
44	35.3	35.4	.1
45	34.0	36.8	2.8
46	35.8	37.0	1.2
47	32.8	36.7	3.9
48	31.9	32.6	.7
49	32.3	35.2	2.9
50	33.7	36.6	2.9
53	33.9	35.5	1.6
54	35.4	36.8	1.4
55	36.3	39.1	2.8

Rescoring in terms of scores below and above the sectional mean showed that there was more change below the mean than above. Scores above the sectional mean, favorable already, tended to be stable, changing very

little; but there was a marked increase in the scores below the mean. Table III shows below mean difference on the total questionnaire, below mean difference on the refined questionnaire, above mean difference on the total questionnaire, and above mean difference on the refined questionnaire, section by section. (For individual cases, section by section, see Appendix E, tables I-XIII and XVI-XXVIII.)

In summary, there was an overall change on the total questionnaire of 1.9; the change below the sectional means was 3.6; and the change above the sectional means was .7. On the refined questionnaire there was an overall change of 1.8; the change below the sectional means was 3.0; and the change above the sectional means was .65. The change on the total questionnaire can not be called significant; it is merely measurable. The change on the refined questionnaire is, however, statistically significant. Most of the change, no matter how the questionnaires were scored, took place in cases which originally fell on or below the sectional mean.

The percentages of cases that changed favorably, unfavorably, and not at all are as follows: the overall percentage of cases of favorable change on the total questionnaire was 56; the percentage of cases of unfavorable change was 30; 12 per cent did not change. On the refined questionnaire, 65 per cent of the cases showed

TABLE III. DIFFERENCES BELOW AND ABOVE THE SECTIONAL MEANS ON THE TOTAL AND REFINED QUESTIONNAIRES

Section	Below mean difference-total	Below mean difference-refined	Above mean difference-total	Above mean difference-refined
40	2.1	3.3	-1.6	-.4
42	.5	.4	-.5	-.5
43	2.2	3.5	.3	1.3
44	1.2	1.2	-.5	-.9
45	3.9	4.1	1.6	1.8
46	.9	1.2	-1.1	1.0
47	5.2	6.2	1.0	.4
48	2.0	1.3	-1.0	-.5
49	3.4	3.0	5.2	2.8
50	5.2	5.0	-.5	-1.6
53	3.8	2.2	2.3	.9
54	3.4	2.0	.3	1.1
55	7.2	4.7	1.9	1.4

favorable change, 22 per cent showed unfavorable change, and 13 per cent did not change.

Table IV shows percentages of favorable change, unfavorable change, and unchanged scores, section by section, on the total questionnaire.

TABLE IV. PERCENTAGES OF CHANGE--TOTAL QUESTIONNAIRE

Section	Favorable change percentage	Unfavorable change percentage	Unchanged percentage
40	50	36	14
42	47	48	5
43	47	38	15
44	50	37	13
45	70	21	9
46	46	45	9
47	56	22	22
48	45	45	10
49	86	14	0
50	64	27	9
53	68	14	18
54	53	31	16
56	79	7	14

Table V shows percentages of favorable change, unfavorable change, and unchanged scores, section by section,

on the refined questionnaire.

TABLE V. PERCENTAGES OF CHANGE--REFINED QUESTIONNAIRE

Section	Favorable change percentage	Unfavorable change percentage	Unchanged percentage
40	68	18	14
42	37	47	16
43	69	19	12
44	42	37	21
45	87	13	0
46	67	17	16
47	72	17	11
48	55	25	20
49	79	7	14
50	73	27	0
53	64	27	9
54	70	18	12
55	79	7	14

Conclusions

The problem that this study set out to solve was whether the study of a specific work of literature would have a statistically significant effect upon the attitudes of students toward the problems dealt with in that work.

The findings of the study indicate that there was significant change in the attitudes of the students, but it would be fallacious to state that the study of Brave New World caused the change. Instead, it will be inferred here that if similar students study Brave New World under similar circumstances and the same testing procedures are employed, it is probable that there will be an overall upward change in score. In addition, given similar circumstances and students, it is probable that most of the change will occur below the mean of the scores.

Because it is impossible, within the scope of this study, to test these inferences against experience, they are advanced as hypotheses, not as facts or generalizations, and like all hypotheses, they are tentative, they need further testing against experience, and they seem to be fruitful of further hypotheses.

It would seem, in terms of the Jacob-Eddy controversy, that the findings of this study support, at the same time, both views. Viewed from one angle, the findings seem to support Jacob's stand; from another, it appears that they support Eddy.

One important point that Jacob makes is that student values tend to be similar. Roughly 75 per cent of them hold the same views on a given subject.¹ The grouping of scores in the sample employed in this study tends to support Jacob's findings. The lowest possible score on the

total questionnaire was 20. The highest was 100. There were no scores below 40. Between 40 and 49 there was one score, or in round figures, zero per cent; between 50 and 59 there were 26 scores, or 10 per cent; between 60 and 69 there were 102 scores, or 41 per cent; between 70 and 79 there were 103 scores, or 41 per cent; between 80 and 89 there were 21 scores, or eight per cent; and between 90 and 100 there was one score, or zero per cent. The homogeneity of the scores in this study would certainly seem to support Jacob's view.

The finding of Jacob's study, and the major point of interest, is that college work does not change student values to any appreciable degree. College may have some effect, he states, but that effect is very slight.² In this study, there was a significant change overall, but it was a slight one--1.9 on the total questionnaire and 1.8 on the refined questionnaire.

On the basis of overall figures, then, the findings of this study seem to support Jacob's position on the ineffectiveness of college as a changer of values.

But in another way, the findings of this study support Eddy's position, which is that college can have a profound effect upon student character, given sufficient student interest, a competent faculty, and the proper environment.³

A quick glance at any of tables I-XIII in Appendix

2 will show an individual case that showed favorable change of nine or more points. In no section was there less than this amount of change for some individual. Some scores went up 15 or more points. Perhaps in the cases of these students there was sufficient student interest, competent faculty, or proper environment.

Another support for Eddy's view is one that has not been reported previously because of its subjective nature. At the end of the unit on Brave New World, the students were asked to present an unsigned statement in which they reported whether they thought that Brave New World ought to be retained as required reading for English VI in the future and why they thought what they thought. Eighty-three per cent of the responses indicated that Brave New World ought to be retained. The reasons which they gave were surprisingly similar: nearly all stated that the study of Brave New World, after they had recovered from the initial shock, had stimulated an interest in society and its end, had presented viewpoints of which they had not been aware. The general reaction to the study of the book, then, seemed to be a "good" one.

It might seem unreasonable, at first glance, that the findings of this study would support two apparently diverse views of the same subject. The reason, it seems, is that Jacob worked with large samples; he was concerned with overall, not individual, change. Eddy, on the other

hand, worked only with individuals. He used interviews with individuals and small groups, while Jacob used objective tests on large groups.

It is in the overall findings that this study supports Jacob's position; where individuals are concerned, it supports Eddy.

In brief, the findings of this study would seem to support the view held by many teachers that, though they may not have a profound effect upon a whole class, they can and do have a profound effect upon some individuals.

Suggestions for Further Study

One problem that might be interesting and fruitful, and that this study could not encompass, would be to attempt to discover whether change is primarily the result of the teaching method, the teacher's personality, the text, or the students' beginning attitudes. (The variation of the sectional means would indicate varying degrees of initial favorable response, which might well have affected the amount of change.) What the individual instructor emphasized as well as how he emphasized it might have had some bearing on the amount of change. If neither of these factors seems to have a bearing on change, it might be possible to assign responsibility for change to the text. Further work on these problems would serve to eliminate variables which could not be controlled

for this study.

Table VI shows sectional mean change on the refined questionnaire by instructors.

TABLE VI. MEAN CHANGE, BY INSTRUCTORS, ON THE REFINED QUESTIONNAIRE

Instructor	Original mean	Retake mean	Difference
1	35.4	36.8	1.4
1	34.0	36.8	2.8
2	32.3	35.2	2.9
2	36.3	39.1	2.8
3	31.9	32.6	.7
3	33.7	36.6	2.9
4	36.7	36.6	-.1
4	35.8	37.0	1.2
5	33.3	34.8	1.5
5	32.8	36.7	3.9
6	33.4	35.6	2.2
7	35.3	35.4	.1
8	33.9	35.5	1.6

Another problem, and a very important one, in terms of the implications of this study, is whether the change found is permanent or temporary. The same questionnaire might be administered, for example, six months or a year after the original sampling.

The testing of some other relationships could conceivably be undertaken: Do the students' religious preferences have any bearing on the amount of change? Is there a relationship between intelligence quotient and change? Do students from urban areas change more than those from rural areas? Do liberal arts students change more than engineering students, for example? Two texts that deal with similar problems might be employed in an experiment and the amount of change for each recorded.

This whole area is a new one, full of unsolved problems, and dependable information in it should be of interest and value to educators in any field or on any level.

FOOTNOTES

¹Philip E. Jacob, Changing Values in College, p. 14, The Edward W. Hazen Foundation: New Haven, 1956.

²Ibid., p. 40.

³Edward D. Eddy, The College Influence on Student Character, pp. 175-180, American Council on Education: Washington, D. C., 1959.

- Alexander, Sidney, "Huxley: the Infant in the Power-house", The Nation, vol. 181, 46-48, Nation Associates, Incorporated: New York, 1955.
- Atkins, John, Aldous Huxley, Roy Publishers: New York, 1956.
- Bennett, M. E., College and Life, Mc Graw-Hill Book Company: New York, 1933.
- Briggs, LeBaron Russel, School, College and Character, The Riverside Press: Cambridge, Massachusetts, 1901.
- Cass, Cashenden, "Irascibility in Love with Love", The New Republic, vol. 133, 16-17, New Republic: Washington, D. C., 1955.
- Catlin, George, "Time and Aldous Huxley", The Saturday Review of Literature, vol. 21, 5, Saturday Review, Incorporated: New York, 1940.
- Charters, W. W., The Teaching of Ideals, The Macmillan Company: New York, 1928.
- Cole, Luella, The Background for College Teaching, Farrar and Rinehart, Incorporated: New York, 1940.
- Cowley, Malcom, "Mr. Huxley's New Jerusalem", The New Republic, vol. 93, 315-316, New Republic: Washington, D. C., 1938.
- Cronbach, Lee J., "Self-Report Techniques: Attitudes", Essentials of Psychological Testing, pp. 368-386, Harper and Brothers: New York, 1949.
- Daiches, David, "The Novels of Aldous Huxley", The New Republic, vol. 100, 362-365, New Republic: Washington, D. C., 1939.
- Eddy, Edward D., The College Influence on Student Character, American Council on Education: Washington, D. C., 1959.
- Esty, William, "Competitive Co-existence in Aldous Huxley", The New Republic, vol. 135, 18-19, New Republic: Washington, D. C., 1956.

Freemantle, Anne, "Huxley's Mysticism", The Commonweal, vol. 40, 519-520, Commonweal Publishing Company, Incorporated: New York, 1944.

Garrett, Henry E., Statistics in Psychology and Education, Longmans, Green and Company: New York, 1958.

Giddings, Franklin Henry, The Mighty Medicine, The Macmillan Company: New York, 1929.

Hausermann, Hans W., "Aldous Huxley as Literary Critic", P M L A, vol. 48, 908-918, Modern Language Association of America: New York, 1933.

Hook, Sidney, "The 'Signs' of Aldous Huxley", The Saturday Review of Literature, vol. 28, 12-13, Saturday Review, Incorporated: New York, 1945.

Huxley, Aldous L., Along the Road, George H. Doran Company: New York, 1925.

_____ Crome Yellow, Chatto and Windus: London, 1925.

_____ Those Barren Leaves, Harper and Brothers: New York, 1925.

_____ "The Outlook for American Culture", Harper's, vol. 155, 265-272, Harper and Brothers: New York, 1927.

_____ Point Counterpoint, Harper and Brothers: New York, 1928.

_____ Proper Studies, Doubleday, Doran and Company, Incorporated: Garden City, 1928.

_____ Do What You Will, Chatto and Windus: London, 1929.

_____ Vulgarity in Literature, Chatto and Windus: London, 1930.

_____ Music at Night, Chatto and Windus: London, 1931.

_____ Antic Hay, Random House: New York, 1932.

_____ "The Problem of Faith", Harper's, vol. 166, 211-216, Harper and Brothers: New York, 1933.

_____ Texts and Pretexts, Harper and Brothers: New York, 1933.

_____ Beyond the Mexique Bay, Harper and Brothers: New York, 1934.

_____ Eyeless in Gaza, Harper and Brothers: New York, 1936.

_____ Ends and Means, Harper and Brothers: New York, 1937.

_____ After Many a Summer Dies the Swan, Harper and Brothers: New York, 1939.

_____ Grey Eminence, Harper and Brothers: New York, 1941.

_____ Time Must Have a Stop, Harper and Brothers: New York, 1944.

_____ Brave New World, Harper and Brothers: New York, 1946.

_____ The Perennial Philosophy, Harper and Brothers: New York, 1946.

_____ Science, Liberty and Peace, Harper and Brothers: New York, 1946.

_____ Verres and a Comedy, Chatto and Windus: London, 1946.

_____ The Olive Tree, Chatto and Windus: London, 1947.

_____ Ape and Essence, Harper and Brothers: New York, 1948.

_____ Jesting Pilate, Chatto and Windus: London, 1948.

_____ On the Margin, Chatto and Windus: London, 1948.

_____ Themes and Variations, Harper and Brothers: New York, 1950.

_____ The Devils of Loudon, Harper and Brothers: New York, 1952.

_____ The Doors of Perception, Harper and Brothers: New York, 1954.

- _____ The Genius and the Goddess, Harper and Brothers:
New York, 1955.
- _____ Heaven and Hell, Harper and Brothers: New York,
1956.
- _____ Tomorrow and Tomorrow and Tomorrow, Harper and
Brothers: New York, 1956.
- _____ Brave New World Revisited, Harper and Brothers:
New York, 1958.
- _____ Collected Short Stories, Harper and Brothers:
New York, 1958.
- Jacob, Philip E., Changing Values in College, The Edward
W. Hazen Foundation: New Haven, 1956.
- Justman, Joseph, and Wais, Walter H., College Teaching:
Its Practice and Its Potential, Harper and
Brothers: New York, 1956.
- Maurois, Andre, Prophets and Poets, pp. 285-312, Harper
and Brothers: New York, 1935.
- Parmenter, Ross, "Huxley at Forty-three", The Saturday
Review of Literature, vol. 17, 10-11, Saturday
Review, Incorporated: New York, 1938.
- Parten, Mildred, Surveys, Polls, and Samples, Harper and
Brothers: New York, 1950.
- Pickrel, Paul, "The Home Life of the Amphibian and Unal-
lied Subjects", Harper's, vol. 213, 86, Harper
and Brothers: New York, 1956.
- Rolo, Charles J., "Introduction", The World of Aldous
Huxley, pp. xii-xxv, Harper and Brothers: New
York, 1947.
- Spencer Theodore, "Aldous Huxley: the Latest Stage",
Atlantic Monthly, vol. 165, 407-409, Atlantic
Monthly Company: Boston, 1940.
- Stevens, George, "Aldous Huxley's Man of Good Will",
The Saturday Review of Literature, vol. 14, 3-4,
Saturday Review, Incorporated: New York, 1936.
- Swinnerton, Frank, The Georgian Literary Scene, pp. 344-
353, Farrar, Straus and Company, Incorporated:
New York, 1949.

- Tead, Ordway, College Teaching and College Learning, Yale University Press: New Haven, 1949.
- Tindall, W. Y., "The Trouble with Aldous Huxley", The American Scholar, vol. 12, 452-464, United Chapters of Phi Beta Kappa: Washington, D. C., 1942.
- Trilling, Diana, "The Faith of Aldous Huxley", The Nation, vol. 159, 270-271, Nation Associates, Incorporated: New York, 1944.
- Wilson, Edmund, "Aldous Huxley and the World Beyond Time", Classics and Commercials, pp. 209-215, Farrar, Straus and Company: New York, 1950.
- Woodburn, John, "Depraved New World", The Saturday Review of Literature, vol. 31, 8, Saturday Review, Incorporated: New York, 1948.
- Woodcock, George, "Five Who Fear the Future", The New Republic, vol. 134, 17-19, New Republic: Washington, D. C., 1956.

APPENDICES

APPENDIX A

Sample of the Questionnaire Administered to English II

Circle the answer that most nearly agrees with your reaction to the statement.

Key: SA--strongly agree
 A--agree
 U--undecided
 D--disagree
 SD--strongly disagree

- SA A U D SD 1. The United States is the most democratic country in the world.
- SA A U D SD 2. This country needs more and stronger leadership.
- SA A U D SD 3. A brand product is a better product.
- SA A U D SD 4. The most important goal in life is security.
- SA A U D SD 5. Science is the "railroad of progress."
- SA A U D SD 6. A policeman should be able to question anyone who looks suspicious.
- SA A U D SD 7. One should do all he can to avoid his military obligation.
- SA A U D SD 8. Science courses should be emphasized at all school levels.
- SA A U D SD 9. A person should not buy a new car every year, even though he can afford it.
- SA A U D SD 10. Science will never solve all of man's problems.
- SA A U D SD 11. Russia is the most materialistic of the major nations of the world.
- SA A U D SD 12. Although the faculty is very important in education, it is the physical plant which is most important; for even the best faculty cannot operate properly in poor surroundings.

- SA A U D SD 13. Neither Socialism nor Communism is fundamentally anti-American.
- SA A U D SD 14. An extrovert is a more normal person than an introvert.
- SA A U D SD 15. The skills of modern science are so far advanced that if we apply them we can solve all of our problems.
- SA A U D SD 16. An understanding of art would be of no help in making people better.
- SA A U D SD 17. We should accept as right what older people say and do.
- SA A U D SD 18. Beethoven contributed more to civilization than Henry Ford.
- SA A U D SD 19. If all men were well provided for, our problems would disappear.
- SA A U D SD 20. Freedom from pain and worry should not be our main goal in life.
- SA A U D SD 21. A course in chemistry is more valuable than a course in art appreciation because it has more practical application.
- SA A U D SD 22. A normal person would never want to be alone.
- SA A U D SD 23. Individual freedom is less important than the success of the nation.
- SA A U D SD 24. Communism should never be taught in our colleges.
- SA A U D SD 25. We should have a system for determining what a student can do well and educate him to do it.
- SA A U D SD 26. Free enterprise enables all to get ahead.
- SA A U D SD 27. Even if a student does not do well in college, he should not be dropped.
- SA A U D SD 28. You can't afford not to dress well.

- SA A U D SD 29. One of the least valuable things about a college education is that it enables a graduate to attain greater financial security.
- SA A U D SD 30. One who does not attend church services is an atheist.
- SA A U D SD 31. The federal government should pay for the education of all students.
- SA A U D SD 32. Laws governing sexual offenses are not strict enough.
- SA A U D SD 33. Newspapers and magazines report news fairly and accurately.
- SA A U D SD 34. The object of a college education is to be able to make a good living.
- SA A U D SD 35. It is always foolish to criticize a teacher.
- SA A U D SD 36. In the long run, the safest thing to do is to pay one's taxes.
- SA A U D SD 37. Our only hope for survival is to put our faith in science.
- SA A U D SD 38. A school board should hire only active church members of accepted denominations as teachers.
- SA A U D SD 39. When the founders of the American way of life endorsed competition, they did not mean price competition.
- SA A U D SD 40. A business man has no obligation to his community and thus need not join and support a club such as the Elks or the American Legion.
- SA A U D SD 41. General Motors is less important to our happiness than the Princeton Institute for Advanced Study.
- SA A U D SD 42. People who would disrupt society should not be interfered with.
- SA A U D SD 43. Artists contribute more to human happiness than scientists.

- SA A U D SD 44. It is always wrong to disobey the government.
- SA A U D SD 45. Painters tend to be immoral and lazy.
- SA A U D SD 46. A normal person would rather have an income of \$10,000 guaranteed him than peace of mind.
- SA A U D SD 47. One should never hunt or fish out of the legal season.
- SA A U D SD 48. Everyone ought to read at least one book each week.
- SA A U D SD 49. Material plenty and the absence of mental strife or pain constitute happiness.
- SA A U D SD 50. Thomas Edison contributed more to human happiness than Rembrandt.
- SA A U D SD 51. The study of arts is abstract.
- SA A U D SD 52. The study of science is practical.
- SA A U D SD 53. Perry Como and Bing Crosby are excellent singers because they have pleasant, smooth voices.
- SA A U D SD 54. Mass education and communication are advances for which we should be grateful.
- SA A U D SD 55. Only a person who works within the social framework can make a valuable contribution to civilization.
- SA A U D SD 56. Our standard of living in America does not indicate that we are superior to other people.
- SA A U D SD 57. The consumption of alcohol is good in that it reduces tension.
- SA A U D SD 58. The use of tranquilizers should not be allowed.
- SA A U D SD 59. Americans, in general, tend to accept authority too easily.
- SA A U D SD 60. A man's worth can be judged by how well he gets along with people.

- SA A U D SD 13. We should have a system for determining what a student can do well and educate him to do it.
- SA A U D SD 14. Our only hope for survival is to put our faith in science.
- SA A U D SD 15. When the founders of the American way of life endorsed competition they did not mean price competition.
- SA A U D SD 16. Even if a student does not do well in college, he should not be dropped.
- SA A U D SD 17. The object of a college education is to be able to make a good living.
- SA A U D SD 18. Thomas Edison contributed more to human happiness than Rembrandt.
- SA A U D SD 19. A man's worth can be judged by how well he gets along with people.
- SA A U D SD 20. Our standard of living in America does not indicate that we are superior to other people.

APPENDIX C

List of 10 Statements Which Elicited Significant Change

- SA A U D SD 1. If all men were well provided for, our problems would disappear.
- SA A U D SD 3. The most important goal in life is security.
- SA A U D SD 4. The United States is the most democratic country in the world.
- SA A U D SD 5. An understanding of art would be of no help in making people better.
- SA A U D SD 6. The skills of modern science are so far advanced that if we apply them we can solve all of our problems.
- SA A U D SD 10. Communism should never be taught in our colleges.
- SA A U D SD 11. A course in chemistry is more valuable than a course in art appreciation because it has more practical application.
- SA A U D SD 12. A normal person would never want to be alone.
- SA A U D SD 13. We should have a system for determining what a student can do well and educate him to do it.
- SA A U D SD 18. Thomas Edison contributed more to human happiness than Rembrandt.

APPENDIX D

Common Teaching Materials

Sample of the Assignment Sheet

ENGLISH 6 ASSIGNMENT SHEET

Spring Quarter, 1959

Texts: Watt, An American Rhetoric
 Bartel, Johnson's London
 Sophocles, Three Theban Plays (Banks translation)

- | | |
|------------------|---|
| March 31-April 3 | 1. Introduction |
| | 2. Watt, Chapter 11, pp. 368-379 |
| April 6-10 | 3. Watt, Chapter 11, pp. 379-391 |
| | 4. Theme 1 |
| | 5. Huxley, <u>Brave New World</u> |
| April 13-17 | 6. <u>Brave New World</u> |
| | 7. <u>Brave New World</u> |
| | 8. <u>Brave New World</u> |
| April 20-24 | 9. <u>Brave New World</u> |
| | 10. Theme 2 |
| | 11. Test over <u>Brave New World</u> |
| April 27-May 1 | 12. Research paper, <u>Johnson's London</u> |

Sample of the Suggestion SheetENGLISH 6--BRAVE NEW WORLD

David Adams

It seems to me that a consideration of these topics in Brave New World might be of value:

1. The Victorian Weltanschauung and Huxley's reaction to it
2. Huxley's satire--irony, distortion, and enlargement.

How successful is it? Would a consistent method have been better? Is the book all satire? Would it have been better if it had been all satire?

3. The significance of the character's names
4. Huxley's theories of economics: the relationship of population growth to industrialism. Subpoint--leisure and its uses.
5. Huxley's theories of aesthetics: Why are the high arts, all intellectual pursuits in fact, absent from the Brave New World.
6. Huxley's religious views--the relationship between God and man.
7. The foreward, which reduces the central idea of the book to a clearly stated dilemma on the last page.
8. Factors in our society that are portents of the Brave New World. Subpoint--are there or what are the factors that indicate that the Brave New World will not come about?

Partial Sample of the Unit Test

II. Choose the best answer for each of the following:

16. The word queer as used in Brave New World society indicates (a) admiration, (b) indifference, (c) something strange, (d) condemnation.
17. Brave New Worlders love (a) the countryside, (b) old things, (c) pure science, (d) elaborate games.
18. The Brave New World society does not eliminate (a) most diseases, (b) suffering, (c) death, (d) poverty.
19. When John and Helmholtz throw away the soma pills and urge the Deltas to free themselves, the Deltas (a) feel hopeful for the first time, (b) are horrified, (c) run away, (d) have no reaction.
20. In Brave New World society there is high regard for (a) history, (b) Shakespeare, (c) science, (d) contentment.
21. Linda is particularly offensive to Brave New Worlders because she (a) is ill-dressed, (b) is so ignorant,

- (c) appears not to be youthful, (d) is forward.
22. Conversation in Brave New World society consists primarily of (a) unoriginal thinking, (b) hypnopædic proverbs, (c) complaining, (d) atheistic philosophy.
 23. The Fordson Community Singery Corresponds to (a) a gathering place of a group of singers, (b) a sort of church, (c) a political rally, (d) none of these.
 24. Which of the following is most nearly sane, according to present-day standards? (a) John, (b) Lenina, (c) Mustapha Mond, (d) Linda.
 25. Huxley's attitude toward the Brave New World is one of (a) repugnance, (b) hopeful anticipation, (c) unconcern, (d) none of these.
 26. Huxley himself is (a) a cynic, unconcerned with the future of mankind, (b) a humanist, deeply concerned with man's future, (c) a neo-fascist, who would enjoy seeing an all-powerful state, (d) an anarchist, who would like to see society crumble.
 27. Reuben Rabinovitch, a child of Polish speaking parents, was instrumental in the discovery of (a) electromagnetic gold, (b) hypnopædia, (c) centrifugal bumble-puppy, (d) ectogenesis.
 28. The high arts are absent from the Brave New World because (a) they were lost during the nine years war, (b) the feelies and synthetic music proved superior, (c) high art demands great upheavals, (d) no potential artists were produced.
 29. The Brave New Worlders do not practice chastity because (a) it would upset the social order, (b) they are immoral, (c) Huxley believes in free love, and he satisfies his own desires through his characters, (d) chastity itself is wrong.
 30. Helmholtz Watson could not write poetry because (a) he lacked talent, (b) there was no instability in society, (c) poetry-writing was forbidden, (d) the language had degenerated.

III. Follow the directions of your instructor concerning the following essay questions:

1. In a standard paragraph explain why poetry and pure

science are "dangerous" in the Brave New World.

2. In a standard paragraph explain why you think/
don't think the Brave New World will become a
reality. Be specific.
3. In a standard paragraph explain how the Brave New
World robs man of his dignity. Be specific.

APPENDIX E

Tables Showing Individual Cases

This appendix consists of 28 tables. Tables I through XV show individual cases on the total questionnaire, section by section. Tables XVI through XXVIII show individual cases on the refined questionnaire, section by section. Scores on the first administration are listed under "Original," and scores on the second administration are listed under "Retake."

Also, each table divides the scores into two groups. Scores which originally fell on or below the sectional mean are listed a second time under "Below mean." Scores that fell above the sectional mean are listed a second time under "Above mean." The scores on the second administration are listed after each score under "Retake." Each table gives a sectional mean for each category.

These tables, then, enable one to compare individual change from the first to the second administrations of the total questionnaire as well as the refined questionnaire. In addition, one can see the amount of change between administrations for the whole section--overall, below the sectional mean, and above the sectional mean.

TABLE I. ENGLISH VI, SECTION 40

Case	Original	Retake	Below mean	Retake	Above mean	Retake
1	74	76			74	76
2	73	71			73	71
3	73	74			73	74
4	73	71			73	71
5	72	73			72	73
6	72	69			72	69
7	71	70			71	70
8	71	74			71	74
9	70	54			70	54
10	69	71			69	71
11	68	66			68	66
12	66	67	66	67		
13	66	71	66	71		
14	66	71	66	71		
15	66	69	66	69		
16	66	66	66	66		
17	65	65	65	65		
18	59	58	59	58		
19	59	61	59	61		
20	57	66	57	66		
21	57	56	57	56		
22	57	57	57	57		
Total	1470	1476	684	717	786	769
Mean	66.8	67.1	62.2	64.3	71.5	69.9

TABLE II. ENGLISH VI, SECTION 42

Case	Original	Retake	Below mean	Retake	Above mean	Retake
1	84	85			84	85
2	84	82			84	82
3	84	76			84	76
4	82	89			82	89
5	82	81			82	81
6	79	74			79	74
7	78	79			78	79
8	77	83			77	83
9	76	73			76	73
10	71	66	71	66		
11	70	67	70	67		
12	69	69	69	69		
13	69	72	69	72		
14	66	71	66	71		
15	66	63	66	63		
16	63	64	63	64		
17	57	56	57	56		
18	56	57	56	57		
19	48	55	48	55		
Total	1361	1362	635	640	726	722
Mean	71.6	71.7	63.5	64.0	80.7	80.2

TABLE III. ENGLISH VI, SECTION 43

Case	Original	Retake	Below mean	Retake	Above mean	Retake
1	79	73			79	73
2	77	77			77	77
3	76	78			76	78
4	75	72			75	72
5	75	75			75	75
6	74	70			74	70
7	73	75			73	75
8	72	81			72	81
9	71	74			71	74
10	71	74			71	74
11	70	69			70	69
12	70	69			70	69
13	69	64	69	64		
14	69	69	69	69		
15	69	74	69	74		
16	69	68	69	68		
17	68	64	68	64		
18	65	60	65	60		
19	65	64	65	64		
20	63	70	63	70		
21	63	63	63	63		
22	63	65	63	65		
23	62	65	62	65		
24	62	68	62	68		
25	61	69	61	69		
26	56	72	56	72		
Total	1787	1822	904	935	883	887
Mean	68.7	70.1	64.6	66.8	73.6	73.9

TABLE IV. ENGLISH VI, SECTION 44

Case	Original	Retake	Below mean	Retake	Above mean	Retake
1	89	93			89	93
2	84	83			84	83
3	84	86			84	86
4	81	82			81	82
5	78	75			78	75
6	76	81			78	81
7	78	74			78	74
8	75	71			75	71
9	74	73			74	73
10	74	74			74	74
11	74	72			74	72
12	72	73	72	73		
13	71	69	71	69		
14	71	71	71	71		
15	68	66	68	66		
16	69	70	69	70		
17	68	72	68	72		
18	67	65	67	65		
19	66	67	66	67		
20	66	63	66	63		
21	65	70	65	60		
22	61	61	61	61		
23	58	62	58	62		
24	57	66	57	66		
Total	1728	1739	859	875	869	864
Mean	72.0	72.5	66.1	67.3	79.0	78.5

TABLE V. ENGLISH VI, SECTION 45

Case	Original	Retake	Below mean	Retake	Above mean	Retake
1	82	84			82	84
2	76	78			76	78
3	76	79			76	79
4	75	73			75	73
5	74	80			74	80
6	74	73			74	73
7	74	75			74	75
8	74	82			74	82
9	74	73			74	73
10	73	73			73	73
11	72	70			72	70
12	71	74			71	74
13	72	74			72	74
14	68	68	68	68		
15	66	69	66	69		
16	65	70	65	70		
17	64	69	64	69		
18	63	68	63	68		
19	63	68	63	68		
20	61	66	61	66		
21	61	64	61	64		
22	58	57	58	57		
23	52	61	52	61		
Total	1588	1648	621	660	967	988
Mean	69.0	71.7	62.1	66.0	74.4	76.0

TABLE VI. ENGLISH VI, SECTION 46

Case	Original	Retake	Below mean	Retake	Above mean	Retake
1	93	92			93	92
2	88	88			88	88
3	87	86			87	86
4	83	62			83	62
5	79	80			79	80
6	78	84			78	84
7	78	81			78	81
8	77	75			77	75
9	75	75			75	75
10	75	77			75	77
11	75	78			75	78
12	74	79			74	79
13	74	65			74	65
14	71	67	71	67		
15	71	70	71	70		
16	71	69	71	69		
17	69	64	69	64		
18	69	71	69	71		
19	68	71	68	71		
20	65	68	65	68		
21	63	68	63	68		
22	62	61	62	61		
23	60	74	60	74		
24	54	50	54	50		
Total	1759	1755	723	733	1036	1022
Mean	73.3	73.1	65.7	66.8	79.7	78.6

TABLE VII. ENGLISH VI, SECTION 47

Case	Original	Retake	Below mean	Retake	Above mean	Retake
1	81	81			81	81
2	81	81			81	81
3	78	79			78	79
4	75	75			75	75
5	73	78			73	78
6	73	80			73	80
7	73	67			73	67
8	70	87	70	87		
9	69	67	69	67		
10	67	67	67	67		
11	67	65	67	65		
12	67	67	67	67		
13	67	76	67	76		
14	66	77	66	77		
15	65	67	65	67		
16	62	73	62	73		
17	61	69	61	69		
18	57	61	57	61		
Total	1252	1317	718	776	534	541
Mean	69.6	73.2	65.3	70.5	76.3	77.3

TABLE VIII. ENGLISH VI, SECTION 48

Case	Original	Retake	Below mean	Retake	Above mean	Retake
1	84	83			84	83
2	84	77			84	77
3	82	81			82	81
4	77	81			77	81
5	71	63			71	63
6	68	64			68	64
7	68	76			68	76
8	67	68			67	68
9	65	71	65	71		
10	64	61	64	61		
11	63	59	63	59		
12	61	61	61	61		
13	61	71	61	71		
14	61	68	61	68		
15	60	60	60	60		
16	58	61	58	61		
17	55	54	55	54		
18	55	52	55	52		
19	55	62	55	62		
20	50	60	50	60		
Total	1309	1333	708	732	601	593
Mean	65.5	66.7	59.0	61.0	75.1	74.1

TABLE IX. ENGLISH VI, SECTION 49

Case	Original	Retake	Below mean	Retake	Above mean	Retake
1	80	85			80	85
2	73	75			73	75
3	72	81			72	81
4	71	77			71	77
5	69	77			69	77
6	69	70			69	70
7	67	71	67	71		
8	66	67	66	67		
9	66	63	66	63		
10	64	69	64	69		
11	63	62	63	62		
12	61	69	61	69		
13	57	63	57	63		
14	55	62	55	62		
Total	933	991	499	526	434	465
Mean	66.6	70.8	62.4	65.8	72.3	77.5

TABLE X. ENGLISH VI, SECTION 50

Case	Original	Retake	Below mean	Retake	Above mean	Retake
1	82	80			82	80
2	78	81			76	81
3	72	69			72	69
4	71	72			71	72
5	71	73			71	73
6	71	65			71	65
7	68	68	68	68		
8	64	74	64	74		
9	63	66	63	66		
10	61	72	61	72		
11	61	63	61	63		
Total	760	783	317	343	443	440
Mean	69.1	71.2	63.4	68.6	73.8	73.3

TABLE XI. ENGLISH VI, SECTION 53

Case	Original	Retake	Below mean	Retake	Above mean	Retake
1	85	83			85	83
2	78	76			78	76
3	76	76			76	76
4	74	77			74	77
5	74	82			74	82
6	74	75			74	75
7	74	86			74	86
8	74	72			74	72
9	73	78			73	78
10	72	72			72	72
11	69	71			69	71
12	67	69	67	69		
13	65	70	65	70		
14	64	64	64	64		
15	64	75	64	75		
16	63	64	63	64		
17	62	64	62	64		
18	62	65	62	65		
19	62	64	62	64		
20	60	64	60	64		
21	57	69	57	69		
22	56	56	56	56		
Total	1505	1592	682	724	823	848
Mean	68.4	72.4	62.0	65.8	74.8	77.1

TABLE XII. ENGLISH VI, SECTION 54

Case	Original	Retake	Below mean	Retake	Above mean	Retake
1	79	76			79	76
2	75	72			75	72
3	75	72			75	72
4	74	70			74	70
5	74	75			74	75
6	73	76			73	76
7	71	75			71	75
8	70	74			70	74
9	70	74			70	74
10	70	68			70	68
11	67	66	67	66		
12	66	66	66	66		
13	66	80	66	80		
14	63	56	63	56		
15	63	63	63	63		
16	58	69	58	69		
17	57	64	57	64		
Total	1169	1196	440	464	729	732
Mean	68.8	70.4	62.9	66.3	72.9	73.2

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TABLE XIII. ENGLISH VI, SECTION 55

Case	Original	Retake	Below mean	Retake	Above mean	Retake
1	88	95			88	95
2	78	78			78	78
3	78	68			78	68
4	76	76			76	76
5	76	79			76	79
6	74	78			74	78
7	73	81			73	81
8	72	75			72	75
9	70	72	70	72		
10	67	75	67	75		
11	67	70	67	70		
12	65	68	65	68		
13	63	72	63	72		
14	51	69	51	69		
Total	998	1056	383	426	615	630
Mean	71.3	75.4	63.8	71.0	76.9	78.8

TABLE XIV. ENGLISH III, SECTION 3

Case	Original	Retake	Above mean	Retake	Below mean	Retake
1	73	73			73	73
2	73	73			73	73
3	71	73			71	73
4	65	71			65	71
5	64	63			64	63
6	63	62			63	62
7	62	60			62	60
8	62	60			62	60
9	61	61			61	61
10	60	52	60	52		
11	60	66	60	66		
12	59	67	59	67		
13	58	66	58	66		
14	57	63	57	63		
15	55	53	55	53		
16	55	58	55	58		
17	54	54	54	54		
18	51	56	51	56		
19	51	64	51	64		
20	49	51	49	51		
Total	1201	1242	609	650	592	592
Mean	60.1	62.1	55.4	59.1	65.8	65.8

TABLE XV. ENGLISH III, SECTION 15

Case	Original	Retake	Below mean	Retake	Above mean	Retake
1	74	80			74	80
2	74	76			74	76
3	72	74			72	74
4	72	68			72	68
5	66	75			66	75
6	66	69			66	69
7	65	65	65	65		
8	63	64	63	64		
9	62	68	62	68		
10	62	69	62	69		
11	62	61	62	61		
12	62	65	62	65		
13	62	69	62	69		
14	60	66	60	66		
15	59	49	59	49		
16	59	67	59	67		
Total	1040	1086	616	643	424	442
Mean	65.0	67.8	61.6	64.3	70.7	73.7

47:

TABLE XVI. ENGLISH VI, SECTION 40

Case	Original	Retake	Below mean	Retake	Above mean	Retake
1	35	27			35	27
2	33	36	33	36		
3	29	29	29	29		
4	31	35	31	35		
5	33	35	33	35		
6	38	37			38	37
7	35	39			35	39
8	39	40			39	40
9	38	39			38	39
10	32	38	32	38		
11	34	35			34	35
12	30	36	30	36		
13	28	36	28	36		
14	30	36	30	36		
15	28	28	28	28		
16	34	30			34	30
17	37	38			37	38
18	36	34			36	34
19	34	35			34	35
20	31	33	31	33		
21	30	30	30	30		
22	38	40			38	40
Total	733	766	335	372	398	394
Mean	33.3	34.8	30.5	33.8	36.2	35.8

TABLE XVII. ENGLISH VI, SECTION 42

Case	Original	Retake	Below mean	Retake	Above mean	Retake
1	43	39			43	39
2	34	28	34	28		
3	34	34	34	34		
4	43	43			43	43
5	34	35	34	35		
6	41	48			41	48
7	25	27	25	27		
8	33	35	33	35		
9	33	31	33	31		
10	43	40			43	40
11	43	41			43	41
12	45	41			45	41
13	38	40			38	40
14	24	28	24	28		
15	38	35			38	35
16	30	33	30	33		
17	35	34	35	34		
18	41	43			41	43
19	40	40			40	40
Total	697	695	282	285	415	410
Mean	36.7	36.6	31.3	31.7	41.5	41.0

TABLE XVIII. ENGLISH VI, SECTION 43

Case	Original	Retake	Below mean	Retake	Above mean	Retake
1	36	36			36	36
2	34	38			34	38
3	32	32	32	32		
4	37	41			37	41
5	37	39			37	39
6	36	38			36	38
7	30	35	30	35		
8	35	39			35	39
9	36	35			36	35
10	29	32	29	32		
11	35	36			35	36
12	35	33			35	33
13	35	34			35	34
14	36	42			36	42
15	30	33	30	33		
16	33	35	33	35		
17	32	32	32	32		
18	37	40			37	40
19	37	40			37	40
20	30	35	30	35		
21	29	30	29	30		
22	38	37			38	37
23	35	36			35	36
24	37	33			37	33
25	23	33	23	33		
26	25	31	25	31		
Total	869	925	293	328	576	597
Mean	33.4	35.6	29.3	32.8	36.0	37.3

TABLE XIX. ENGLISH VI, SECTION 44

Case	Original	Retake	Below mean	Retake	Above mean	Retake
1	44	46			44	46
2	35	35	35	35		
3	31	33	31	33		
4	34	33	34	33		
5	38	32			38	32
6	29	32	29	32		
7	26	25	26	25		
8	33	35	33	35		
9	32	34	32	34		
10	36	35			36	35
11	36	35			36	35
12	42	39			42	39
13	38	38			38	38
14	29	30	29	30		
15	40	41			40	41
16	29	34	29	34		
17	33	35	33	35		
18	33	35	33	35		
19	36	35			36	35
20	37	35			37	35
21	40	40			40	40
22	35	32	35	32		
23	39	39			39	39
24	41	41			41	41
Total	846	849	379	393	467	456
Mean	35.3	35.4	31.6	32.8	38.9	38.0

TABLE XX. ENGLISH VI, SECTION 45

Case	Original	Retake	Below mean	Retake	Above mean	Retake
1	28	27	28	27		
2	34	39	34	39		
3	29	35	29	35		
4	33	35	33	35		
5	36	39			36	39
6	31	37	31	37		
7	41	42			41	42
8	40	36			40	36
9	43	44			43	44
10	35	38			35	38
11	37	40			37	40
12	36	38			36	38
13	37	42			37	42
14	35	36			35	36
15	35	41			35	41
16	36	33			36	33
17	24	28	24	28		
18	34	35	34	35		
19	30	37	30	37		
20	31	38	31	38		
21	34	38	34	38		
22	27	32	27	32		
23	37	40			37	40
Total	783	846	335	381	448	469
Mean	34.0	36.8	30.5	34.6	37.3	39.1

TABLE XXI. ENGLISH VI, SECTION 46

Case	Original	Retake	Below mean	Retake	Above mean	Retake
1	36	39	36	39		
2	50	44			50	44
3	39	43			39	43
4	32	31	32	31		
5	35	36	35	36		
6	42	46			42	46
7	29	29	29	29		
8	33	35	33	35		
9	39	40			39	40
10	28	34	28	34		
11	34	31	34	31		
12	42	43			42	43
13	39	39			39	39
14	34	35	34	35		
15	23	26	23	26		
16	31	31	31	31		
17	40	42			40	42
18	35	38	35	38		
19	34	37	34	37		
20	35	35	35	35		
21	41	42			41	42
22	37	39			37	39
23	40	41			40	41
24	33	32	33	32		
Total	861	888	452	469	409	419
Mean	35.8	37.0	32.3	33.5	40.9	41.9

TABLE XXII. ENGLISH VI, SECTION 47

Case	Original	Retake	Below mean	Retake	Above mean	Retake
1	37	36			37	36
2	32	36	32	36		
3	36	36			36	36
4	30	37	30	37		
5	33	47	33	47		
6	27	30	27	30		
7	40	41			40	41
8	36	39			36	39
9	36	34			36	34
10	31	32	31	32		
11	29	39	29	39		
12	27	35	27	35		
13	37	39			37	39
14	33	32	33	32		
15	24	36	24	36		
16	32	39	32	39		
17	29	32	29	32		
18	41	41			41	41
Total	590	661	327	395	263	266
Mean	32.8	36.7	29.7	35.9	37.6	38.0

TABLE XXIII. ENGLISH VI, SECTION 48

Case	Original	Retake	Below mean	Retake	Above mean	Retake
1	27	28	27	28		
2	29	28	29	28		
3	36	30			36	30
4	41	41			41	41
5	28	33	28	33		
6	32	34	32	34		
7	31	29	31	29		
8	30	27	30	27		
9	29	33	29	33		
10	35	31			35	31
11	41	41			41	41
12	25	26	25	26		
13	27	29	27	29		
14	28	34	28	34		
15	35	40			35	40
16	35	37			35	37
17	29	30	29	30		
18	47	47			47	47
19	29	30	29	30		
20	24	24	24	24		
Total	638	652	368	385	270	267
Mean	31.9	32.6	28.3	29.6	38.6	38.1

TABLE XXIV. ENGLISH VI, SECTION 49

Case	Original	Retake	Below mean	Retake	Above mean	Retake
1	26	30	26	30		
2	30	35	30	35		
3	34	37			34	37
4	31	34	31	34		
5	31	31	31	31		
6	35	37			35	37
7	39	43			39	43
8	31	29	31	29		
9	36	41			36	41
10	31	34	31	34		
11	29	32	29	32		
12	32	38	32	38		
13	37	37			37	37
14	30	35	30	35		
Total	452	493	271	298	181	195
Mean	32.3	35.2	30.1	33.1	36.2	39.0

TABLE XXV. ENGLISH VI, SECTION 50

Case	Original	Retake	Below mean	Retake	Above mean	Retake
1	39	40			39	40
2	35	36			35	36
3	34	36	34	36		
4	44	37			44	37
5	29	46	29	46		
6	33	32	33	32		
7	32	35	32	35		
8	34	33	34	33		
9	28	36	28	36		
10	30	38	30	38		
11	33	34	33	34		
Total	371	403	254	293	118	113
Mean	33.7	36.6	31.6	36.6	39.3	37.7

TABLE XXVI. ENGLISH VI, SECTION 53

Case	Original	Retake	Below mean	Retake	Above mean	Retake
1	35	38			35	38
2	37	45			37	45
3	26	35	26	35		
4	45	46			45	46
5	29	28	29	28		
6	33	36	33	36		
7	40	38			40	38
8	31	30	31	30		
9	38	36			38	36
10	31	32	31	32		
11	37	35			37	35
12	36	36			36	36
13	31	39	31	39		
14	29	32	29	32		
15	30	31	30	31		
16	41	39			41	39
17	37	41			37	41
18	30	30	30	30		
19	33	34	33	34		
20	34	36	34	36		
21	34	36	34	36		
22	28	29	28	29		
Total	745	782	399	428	346	354
Mean	33.9	35.5	30.7	32.9	38.4	39.3

TABLE XXVII. ENGLISH VI, SECTION 54

Case	Original	Retake	Below mean	Retake	Above mean	Retake
1	32	30	32	30		
2	38	39			38	39
3	37	39			37	39
4	38	42			38	42
5	38	37			38	37
6	31	35	31	35		
7	39	41			39	41
8	36	38			36	38
9	29	29	29	29		
10	29	34	29	34		
11	39	39			39	39
12	38	43			38	43
13	38	33			38	33
14	36	37			36	37
15	37	38			37	38
16	33	36	33	36		
17	33	35	33	35		
Total	601	625	187	199	414	426
Mean	35.4	36.8	31.2	33.2	37.6	38.7

TABLE XXVIII. ENGLISH VI, SECTION 55

Case	Original	Retake	Below mean	Retake	Above mean	Retake
1	40	41			40	41
2	33	35	33	35		
3	25	33	25	33		
4	32	34	32	34		
5	41	41			41	41
6	44	49			44	49
7	41	41			41	41
8	40	45			40	45
9	37	39			37	39
10	34	39	34	39		
11	30	35	30	35		
12	38	41			38	41
13	34	40	34	40		
14	39	34			39	34
Total	508	547	168	216	320	331
Mean	36.3	39.1	31.3	36.0	40.0	41.4

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