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GENERAL EDUCATION AND SOCIAL JUDGMENT OF COLLEGE STUDENTS

Ronald G. Riggs

WHAT'S YOUR SCORE?

Richard S. Mitchell

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FOREWORD

This bulletin is divided into two parts: The first, GENERAL EDUCATION AND SOCIAL JUDGMENT OF COLLEGE STUDENTS was written by Dr. Ronald G. Riggs. Dr. Riggs is a graduate of the University of Minnesota from which institution he received a B.S. and M.Ed. degree. He received his Doctor of Education degree from the University of North Dakota. His teaching experience ranges from the elementary grades through high school and college. He is at present emloyed as instructor in the Social Studies Division of this college, which position he has held since 1939.

The second, WHAT'S YOUR SCORE, was written by Richard S. Mitchell, head of the college audio-visual department. He has his Doctor's degree from Teachers College, Columbia University. Before coming to St. Cloud Dr. Mitchell was engaged in activities for county schools, city schools, Columbia University, Eastern Montana College of Education, and one of the nation's leading experimental schools – the Horace Mann Lincoln School. He has also worked on film production for Encyclopedia Brittanica Classroom Films, Inc. WHAT'S YOUR SCORE is reprinted from the November 1953 issue of Audio-Visual Guide.

– FLOYD PERKINS

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General Education and the Social Judgment Of College Students

by

RONALD G. RIGGS

INTRODUCTION

Public opinion, defined in Webster's Dictionary as a manifestation of mass judgment, is a force that is studied and respected by even the most powerful dictators. It is extremely doubtful that any government in our modern world could long survive without a fair degree of cooperation from the majority of its citizens, because a system based upon fear and force alone would eventually become bankrupt. We find, therefore, that modern society places emphasis upon such terms as "public relations", "propaganda", "advertising", and other procedures for creating attitudes among the citizens that will develop a favorable public opinion.

In the United States, we have a long tradition of democracy which requires the individual citizen to assume his full share of the responsibilities of our society. We do not, therefore, accept the techniques of a dictator who expects an individual to assume a passive role, and is chiefly concerned with the control and manipulation of public opinion. To the contrary, we insist that the attitudes of the individual citizen in the United States must be respected, and that the major responsibility of our elected officials is to carry out the "will of the people".

If the above thesis is a sound one, it follows that a succesful democracy must have the type of citizens who possess the capacity for producing sound, far-sighted decisions. If the policies advocated by the people are wise and constructive, the progress of a democratic government will be continuous, but there is always the possibility that unwise decisions will present difficult obstacles. Furthermore, we have observed the failure of democratic procedures in nations where the citizens were not properly prepared to carry out their responsibilities in shaping successful policies. In the United States, therefore, we have placed great reliance upon an educational system designed to produce a high type of "average" citizen, reduce or eliminate the number of illiterate persons, and develop leaders. With such a citizenry, we may be reasonably certain that our collective attitudes will constitute an enlightened "public opinion".

There is no formula for determining the relative importance of the many factors that are involved in the process of forming public opinion. We know that a given individual's attitudes are the result of many influences, such as his family, school, community, religion and other agencies or institutions; - and his own personal interests, intelligence, age and sex. If we were to attempt a thorough analysis of any one of the above factors, however, a much more exhaustive study would be required than is contemplated in this article. A complete anyalysis of the effect of a person's formal education on his attitudes, for example, would demand a survey of the contributions of every subject from kindergarten to graduate school.

The writer is a member of the faculty at the State Teachers College, St. Cloud, Minnesota, as a teacher of the social sciences. In recent years, our curriculum has been revised to provide a sequence of social science courses for Freshmen and Sophomores. In our stated objectives for the new social science sequence, we have emphasized the necessity for assisting our students in developing habits and skills for applying objective thought to current social problems. We feel that social science teachers must assume a full share of the responsibility for developing citizens who can make constructive contributions to American "public opinion".

The purpose of this article is to present information about the philosophy and objectives of the recently revised social science program at St. Cloud State Teachers College, and the results of research aimed at testing the effectiveness of the program. Because the College built its new curriculum on the philosophy of "General Education", a brief discussion of the history and development of the movement will be included. Attention will also be given to the method used in our recent social science research. The principal emphasis of the article, however, will be devoted to our findings about the social judgment (attitudes toward social problems) of the students in the St. Cloud College, and the changes that occurred as a result of college training in our new social science sequence courses.*

*Note—For a detailed account of the statistical aspects of this article, please consult the writer's doctoral dissertation: "An Evaluation of the General Education Program in Social Science at the State Teachers College, St. Cloud, Minnesota": University of North Dakota, Grand Forks, North Dakota.

GENERAL EDUCATION

What is general education?

In spite of the fact that every college faculty tends to formulate a concept of general education which conforms to the accepted traditions and purposes of its own institution, there are certain basic principles in such programs that seem to be fundamental. Leaders in the general education movement point out the similarities between the principles of the older "liberal" and the newer "general" education, but insist that the substitution of the word *general* for *liberal* is justified if it focuses the attention of educators upon the restoration of humane values which have been neglected in recent over-specialization of curricula in colleges and universities.

One of the most commonly accepted definitions of general education was prepared by the President's Commission on Higher Education: "General education is the term that has come to be accepted for those phases of nonspecialized and nonvocational learning which should be the common experience of all educated men and women. (. . .) General education seeks to redefine liberal education in terms of life's problems as men face them, (. . . .) to invest it with content that is directly relevant to the demands of contemporary society." (1)

It is evident that general education is more readily defined in terms of purpose than in specific content and method. The program is definitely cen-

tered around the needs of the student in taking his future place in a modern, democratic society, and in giving attention to his character, ideals, and attitudes. It has come into existence as a reaction to the highly specialized nature of most college programs which emphasized the vocational training of the student at the expense of the cultural heritage. General education not only treats the student as a human being rather than as a specialist in some vocation, but also attempts to provide an integration between the various departments of a college, in order to give him an understanding of the relationships between all the fields of knowledge and culture.

Conflicting theories of general education.

One of the most recent discussions of the philosophy of general education, by Taylor (2) constitutes the basic framework for an entire volume of the subject presented as a Yearbook of the National Society for the Study of Education. Taylor classifies the theories of general education into three groups; (a) rationalism, (b) neo-humanism, and (c) instrumentalism. The first theory, rationalism, holds that "the work of the classical thinkers contain a set of objective principles and of absolute values which reflect factors inherent in the universe and inherent in the relations of man to nature." The neo-humanism approach places emphasis upon a study of Western culture in order to develop ideas and values compatible with democracy. The theory of instrumentalism puts its chief emphasis upon individual experiences, and works outward to "concepts and facts which are continuously reaffirmed or denied by subsequent experiences".

Outstanding general education programs.

A study of the curricular developments of American institutions of higher learning reveals many extremely interesting programs of general education. The University of Chicago made a radical departure from tradition when it established "The College" in 1930, thus including the last two years of high school and the first two college years in a general education program. The University of Minnesota's General College was inaugurated in 1932, and has been an outstanding force in the general education movement. Among other leading pioneers in developing general education programs are the following: Stephens, Sarah Lawrence, St. Johns of Annapolis, Bennington, Harvard, Wisconsin and Michigan State.

The social sciences in general education.

Although the term "social studies" is probably more appropriate, the term "social sciences" is more common in current general education programs. In actual usage, the term "social science" includes the fields of economics, sociology, and political science, thus permitting considerable integration of the three areas.

The most ambitious study concerning general education to date, is the Comparative Study in General Education conducted by the American Council on Education during 1939-44. More than twenty colleges participated in the study. The Social Studies portion of the study prepared the following list of objectives for their program of general education: (3)

1. To provide a genuine understanding of the society within whose framework we live.
2. To exhibit those conflicts of value which underlie all political and economic decisions.
3. To provide the social knowledge which is a prerequisite to wise decisions of social policy.
4. To enlarge social sensitivity in those areas in which institutional change is desirable.
5. To prepare and encourage the individual toward intelligent social action.

General education program at St. Cloud State Teachers College.

A general education program was put into operation at St. Cloud State Teachers College in the fall of 1950. A definite statement of philosophy for the College was formulated, and has since been published in the annual Catalog. In line with the stated philosophy, the following objectives of the general education program were prepared: (4)

1. To provide information, theory, and skill pertinent to liberal education.
2. To encourage the development of creative thinking and discerning judgments and to stimulate intellectual curiosity.
3. To foster the growth of ideas leading to wholesome and productive citizenship.
4. To develop the ability to communicate effectively.
5. To encourage the development of sound mental, moral, and physical health.

The theory of general education employed at St. Cloud State Teachers College, in terms of Taylor's framework, most resembles the approach of "*instrumentalism*". There is no reference in the statement of objectives to the emphasis which the "rationalists" place upon the classics. There seems to be a similar rejection of the "neo-humanist" approach, with its emphasis upon the development of Western culture. It is quite clear, however, that such references in the St. Cloud objectives as "creative thinking", "citizenship", "mental, moral and physical health", "communication", etc., are in harmony with Taylor's statement that "the instrumentalist philosophy of education puts its chief emphasis on the *uses* of knowledge". (5)

The social sciences in the St. Cloud program of general education.

When the general education program at St. Cloud was prepared, the Social Studies Division was assigned the responsibility for organizing a sequence of three courses in the social sciences, each of which was to be a three-credit course. These courses, as currently administered, may be taken in any convenient order, but must be completed by all students during their first two years of residence.

The social science sequence in general education is described in the College Catalog as follows: (6)

Social Science 101, 102, 103

A study of the social political, and economic problems affecting the individual or group in daily life. Course 101 is economic; 102, political; 103, sociological. The approach is personal, and endeavors, through the study and analysis or problems, to lead the student to an essential understanding of, and an insight into, the ever-increasing social-economic-political complexities and responsibilities of day by day living in the modern world.

Attention is given such problems as those involving intercultural relations, dating and courtship, inter-personal relationships, ownership of property, taxes, insurance, family consumption, family budgets, voting, health and safety, social security, and many others

The above description may be summarized into the following statement of objectives for the social science sequence in general education at St. Cloud State Teachers College:

1. The material is organized around current socio-economic-political problems typical of those faced by the average citizen in modern society.
2. Students are encouraged to develop a critical point of view toward social problems.
3. Understanding of society and culture is emphasized, along with analysis of the inter-relationships between the individuals, groups, and society as a whole.
4. Citizenship in a democracy is understood to carry both responsibilities and privileges.

Formal integration of the material covered by the Economic, (101) Politcal (102), and Sociological (103) Aspects has not been attempted. The departmental viewpoint has favored an organization of the sequence into three courses, each one built around a single aspect of current social problems. It should not be assumed, however, that the three courses in the sequence are compartmentalized in the traditional manner, and that there is no integration between courses. Each of the three courses is a "new" organization of material, prepared by the department for incorporation in the general education program. The traditional courses (Introduction to Sociology, Principles of Economics, and American National Government) are still offered at the Sophomore level, and are required of all social science majors and minors. All faculty members who teach the social science sequence subjects agree with the philosophy that social problems must be considered from various angles, and are using the resources of the entire social science area in presenting their courses. Further integration is furnished by the fact that three of the five instructors in charge of the classes are assigned to teach more than one of the "Aspects".

THE MEASUREMENT OF ATTITUDES

Values and attitudes defined.

According to Thurstone, (7) an attitude is the "sum total of man's inclinations and feelings, prejudice or bias, preconceived notions, ideas, fears, threats and convictions about any specific topic." An attitude is a tendency to *act*, or stated more specifically, a "state of readiness which exerts a directive, and sometimes a compulsive, influence upon an individual's behavior." (8) An attitude may be either general or specific. For example, a person who has a general attitude of liberalism may behave in a highly conservative manner in a specific situation when his personal welfare is involved.

Social *values* are defined as the objects toward which attitudes are held, (9) - such as the sanctity of the home, women's rights, freedom of speech, and democracy.

Inventory of social attitudes.

An inventory of social attitudes is not a test, and is not constructed with the objective of securing right and wrong answers. It consists of a series of statements about social problems, selected so as to constitute a cross-section of typical attitudes. The student is free to express his own reactions (agree-undecided-disagree) to the various statements without fear of being marked "wrong". In order to establish a criteria for judging the accuracy of the student responses, the inventory may be submitted to a group of experts. After the ratings of the experts are tabulated, it is then possible to establish a "consensus" agreement as to the best decision for each statement in the inventory.

"Inventory of Student Attitudes"

The writer prepared an "Inventory of Student Attitudes" for his testing program at the St. Cloud State Teachers College. There were 100 statements in the Inventory, containing approximately the same number of statements from each of the following categories:

1. Domestic minorities and race relations.
2. Internationalism versus political nationalism.
3. Understanding democratic principles.
4. Imperialism.
5. Labor problems.
6. Government versus private enterprise.
7. Economic nationalism.
8. Religion.

The eight categories were chosen so as to provide a cross-section of current problems of a socio-political-economic nature, in accord with the stated objectives of the general education program in social sciences at St. Cloud.

The students, in responding to the various statements in the Inventory, were provided with a five-way choice for their reactions. The statements were

arranged as shown in the following exerpt:

1. We should end discrimination against the Negro in hotels, restaurants, and places of amusement. A B C D E

Machine scoring was used, so the students marked their responses on a separate answer sheet, according to the following key:

A - strongly agree with statement
B - agree with statement
C - undecided
D - disagree with statement
E - strongly disagree with statement

The "Board of Judges".

Eleven experienced social science teachers at the University of North Dakota, Moorhead and St. Cloud State Teachers Colleges, and South Dakota State College cooperated with the writer by serving as a "Board of Judges". A concensus of their responses to each of the 100 statements was used as the standard for judging the accuracy of the student responses.

Administration of the Inventory.

625 students at St. Cloud State Teachers College responded to the Inventory statements during the first week of the Fall quarter of 1951-52. These students were enrolled in (a) twelve sections of the social science sequence courses, (b) four sections of a Freshman History course, and (c) various social science courses for upperclassmen. The distribution was as follows:

Table 1

STUDENTS INCLUDED IN THE FIRST SAMPLE
CLASSIFIED BY COLLEGE CLASS, SEX, AND TYPE OF COURSE

Course	Freshmen		Sophomores		Juniors		Seniors		All		
	M	W	M	W	M	W	M	W	M	W	
Social Science	35	124	36	78	1	8	5	2	77	212	(289)
History 141	25	45	25	23	4	3	1	0	55	71	(126)
Advanced	3	0	9	55	48	15	59	21	119	91	(210)
Totals	63	169	70	156	53	26	65	23	251	374	
	232		226		79		88		625		

The total coverage of the first sample was 625 students, or slightly more than 50% of the fall enrollment at the College in 1951. There were 251 men and 374 women, which corresponded closely to the proportions of men and women for the entire college. The number of Freshmen in the first sample was 66% of the number enrolled in the college. Other classes were represented at a lower percentage.

In the original study, the writer's principal objective was to discover the changes that occurred in the student attitudes as the result of college training.

For this reason, the Inventory was given *again* to the *same* students at the *end* of the Fall Quarter. The History 141 and Advanced groups were used as "control" groups, in order to see if the students in the Social Science sequence courses registered more of a gain in social judgment than was true of other students.

Scores on first and second tests.

A comparison of the scores for the two "tests" reveals the fact that there was a gain on the second test, as follows:

Table 2

SCORES OF STUDENTS ON FIRST AND SECOND TESTS

Groups	Mean, 1st test	Mean, 2nd test	Gain
Social Science	48.1	50.9	2.8
History 141	48.6	50.7	2.1
Advanced	52.6	54.9	2.3

It is encouraging to note in the above statistics, that there was a definite gain on the second test, thus indicating that the three month period of college training between the two tests had resulted in at least a slight modification of previously held attitudes on social problems. The statistics also present convincing evidence that the social science sequence is making progress in achieving its objectives, since the gain of the Social Science group was greater than that of the two "control" groups. If we may assume that the attitudes of all of the students received the same influence from other college courses, press, radio, television, movies, friends, religion, etc., we are justified in crediting the greater gain of the Social Science group to the fact that they alone had received the extra benefit of a college course designed to improve their social judgment.

Elaborate statistical devices were used in determining the significance of the gain made in the second test. For the purposes of this report, however, it will be sufficient to state that the gain was found to be *highly significant* for the number of students tested.

FACTORS AFFECTING SOCIAL JUDGMENT

College social science teachers often become discouraged over the difficulties of effecting appreciable changes in the attitudes of their students. On this point, however, the writer would like to suggest that they are probably justified in taking encouragement over any evidence, even slight, that their students are becoming more objective in their thinking about social problems. We must remember that our students have lived for at least eighteen years before they reach our classes, and that their attitudes are deeply embedded in their personalities. We must also remember that attitudes on social problems have emotional aspects which give rise to strong prejudices that are not easily changed. Let us now examine some of the factors that affect social judgment, in order to suggest effective procedures in our difficult task.

Sex.

The scores in this study indicated that men enter college with a higher degree of social judgment than women. Since we know that women are the equal of men in native intelligence, and that women usually get higher school grades than men, we must conclude that there are other factors contributing to the situation. There are at least two possible explanations for the superiority of the men in social judgment; in the first place, pre-college men are undoubtedly more interested in economic and political affairs than is the case with women of the same age; secondly, the women who enter St. Cloud State Teachers College are almost two years younger than the men. (This has been true in recent years, probably because of military service for men.) In addition to having greater interest in socio-political-economic affairs, the pre-college man has had more experience than the women in actual first-hand participation in such matters.

It was interesting to note, however, that the women students made a greater *gain* on the second test than the men, and that the scores of Senior women were on a par with those of the Senior men. These facts should impress the college social science teacher with the opportunity he has for making a constructive contribution to the social judgment of the women students in his Freshmen and Sophomore classes. The statistics also present a warning that there is danger of the college men reaching a plateau in their social judgment during their Junior and Senior years.

College aptitude.

In 1951, scores on the A.C.E. Psychological Examination were available for most of the students enrolled in St. Cloud State Teachers College. These scores were converted into percentile ranks which indicated the probable college aptitude of the individual student. In an effort to determine the relationship between the college aptitude of the individual and his social judgment, the writer worked out statistical correlations between the percentile ranks on the A.C.E. test and the scores on his own Inventory of Student Attitudes. The correlations were found to be (plus) .38 and .41 on the first and second tests respectively, thus indicating that there is a strong relationship between the two factors. It is interesting to note that the correlation was even higher on the second test than on the first, - after three additional months of college training.

Since intelligence is a prominent factor in determining success in a scholastic aptitude test, it would appear that sound social judgment is closely associated with the intelligence of the individual, other factors being equal. Most modern social problems are highly complex, thus presenting situations that are not easily analyzed. It is not surprising, therefore, that the individual who is capable of following a logical thought pattern will develop more accurate social judgment than is typical for persons who have been less fortunately endowed with intelligence.

Age.

The common assumption that the judgment of most humans is more sound with increasing maturity was given convincing support in the scores of St.

Cloud college students in this study. The scores for the first test are shown below:

Table 3

SCORES ON FIRST TEST: BY AGE-GROUPS

Age-groups	Number	Mean score
17-18	252	47.5
19	151	49.9
20	70	51.2
21-25	109	52.15
26-30	26	52.7
over 30	17	53.0

The statistics in Table 3 reveal a definite improvement in social judgment as the chronological age of the students advanced, although the amount of increase was reduced in the groups above 20 years of age. While it is obvious that the older students had probably received more college training than the younger ones, and would receive higher scores for that reason, it was most interesting to discover that a less pronounced relationship between age and social judgment was definitely indicated when the scores were analyzed by college classes. (Freshmen, Sophomores, etc.)

Correlations between the scores on the Inventory and the age-groups were found to be (plus) .21 and .16 for the first and second tests respectively. We may conclude, therefore, that (a) there is a strong relationship between age and social judgment, and that (b) the relationship is reduced by additional college training. The latter conclusion is due to the fact that younger students make a greater *gain* in social understanding as a result of additional college training than is the case for older students.

College class.

College social science instructors would be dismayed, to state it mildly, if the social judgment of their students diminished with each additional year of college training. It is therefore encouraging to find that the scores of students in this study increased in direct relationship to the amount of college training, as is shown in Table 4.

Table 4

SCORES ON FIRST TEST: BY COLLEGE CLASS

Class	Number	Mean score
Freshmen	232	46.8
Sophomores	226	50.2
Juniors	79	51.2
Seniors	88	54.9

The correlations between the college class of the students and their scores on the Inventory were (plus) .27 and .265 for the first and second tests respectively. These correlations indicate that (a) the social judgment of college students has a positive relationship to the amount of college training, and that (b) this relationship remains the same after an additional three months of college work.

High School rank.

We have indicated in previous sections that we can gain helpful information about the social judgment of college students by referring to facts about their sex, age, college aptitude, and college class. Does the rank a student achieved in his high school class give an indication of his social judgment? If his scholarship in high school placed him in the upper 25% of his class, will he also score in the upper 25% in an "attitude inventory"? The answers to these questions appear to be affirmative, because the correlations between high school rank and scores on the Inventory were (plus) .17 and .22 for the first and second tests respectively.

Two conclusions may be drawn from the above correlations: (a) there is a definite relationship between the high school ranks of college students and their social judgment; (b) the relationship becomes stronger during a three month period of college training. A possible explanation of the latter conclusion is the well-known fact that many young people do not put forth their best efforts when engaged in scholastic pursuits. The students who ranked low in high school might, therefore, fail to apply themselves in a college social science class, thus failing to make as much of a *gain* in the second test as the more earnest students. The correlation between high school rank and the scores on the second test, therefore, showed a highar relationship than was true of the first test.

College marks.

Another possible predictive device for measuring social judgment is an analysis of college marks. In order to check the relationship between college marks and the scores received on the Inventory, statistics were tabulated for 74 students who received a "B" average during the term in which the study was conducted. Similar statistics were tabulated for 62 students who were placed on probation at the end of the same term because of poor scholarship. The mean score on the first test for the "Superior" students was 54.0; for the "Probation" group, 43.2. These scores take on significance by comparison with the mean score for the entire group of 625 students, which was 49.7. It is clear, therefore, that the social judgment of the "Superior" college students was definitely above the average for all college students tested, and that the "Probation" group was definitely inferior in social judgment.

While it would be unwise to predict college success on the basis of achievement on an inventory of social understanding, there is convincing evidence in the above figures that there is a positive relationship between social understanding and the probability of outstanding success (or possible failure) in college. There is similar evidence that the college student who receives average

"C" marks in college is also about average in his social judgment as shown by the type of Inventory used in this study.

Size of home town.

One of the many interesting aspects of college life is the series of never-ending arguments between students about the relative merits of their "home-towns". In order to get specific information on the effect of the *size* of the "home-town" upon social judgment, the students' scores on the first test were classified according to the 1950 census figures. The results of the grouping, however, were not productive of any significant facts to indicate that the size of the "home-town" is an important influence on social judgment. While the scores of students from villages with *less* than 1000 population were lower than the other groups, there were no appreciable differences in the various groups from cities having a population of *more* than 1000. (33% of the students in the tested group came from villages containing less than 1000 persons, and 20% from places with 1000-2499 population.)

The reason for the lower scores of the students from small villages probably lies in such factors as age, sex, and college class, since a disproportionate number of the small town students were; (a) Freshmen and Sophomores, (b) women, and (c) young in chronological age. It is logical to assume, therefore, that our efficient and wide-spread system of modern communication has largely eliminated any important differences in social judgment between small and large cities in a given area.

County of home residence.

Many counties of Minnesota are known to have pronounced nationality and religious characteristics. Since the above factors in family and community environment are known to be important in shaping social attitudes, it seemed advisable to tabulate the scores on the basis of the county of home residence and investigate the results. There were some variations in the scores from different counties, but the differences were not significant enough to justify any conclusions as to the effect of a county environment upon social judgment.

It is likely that our modern Minnesota citizens are no longer motivated to an appreciable degree by the traditions or boundaries of *counties*. The use of the automobile has greatly extended our "living area" without regard to county lines, and the major influences on our thinking about social problems come from sources far wider in scope than the county.

Other factors of importance to social judgment.

Space does not permit more than a passing mention of a number of additional factors that enter into the formation of the attitudes of college students. The family, for example, provides the background for many of the student's attitudes about such matters as marriage, divorce, alcoholism, political parties, civic responsibility, religion, and many others. The church which the student's family has adopted for him may play a profound influence in his outlook on

practically all social problems. If a student believes deeply in the Christian religion, he will undoubtedly be disturbed by the presence of poverty-stricken, sickly or handicapped fellow-citizens; - or at least, he is more apt to be aware of the obligation of society toward the unfortunate persons in our midst than would be expected if he had little or no Christian philosophy.

The natural talents and interests of a college student must also be considered in relation to his attitudes on social questions because he will devote a great deal of time and energy to the type of activity that interests him the most. If his (or her) interests encourage close attention to such social problems as world peace, slum clearance, mental health, and others, he is much more likely to develop an accurate viewpoint on such matters than would be true if his interests led him in other directions. It is also true that a student's choice of vocation will be reflected in his social judgment because of the differences in training required in the various areas. For example, we might expect the prospective social science teacher to be better informed on the causes of high governmental costs than the seminary student; although we would expect the reverse situation when religious problems were involved.

There are other influences in attitude formation which we have not attempted to analyze in this study because they do not lend themselves to the type of large-group research we were conducting. Such factors as the color of a student's skin, his nationality background (including whether foreign or native-born, and skill with English language), his physical and mental health, and his status with fellow-students (particularly with the opposite sex), are all vitally important in the development of attitudes.

ATTITUDES: - CAN THEY BE CHANGED?

Evidence has been presented earlier in this article to support an affirmative response to the question; "Can attitudes be changed?" We have also indicated, however, that the process of change must necessarily be a gradual one because the new thought patterns must become an integral part of the individual's personality. In the Inventory of Student Attitudes used in this study, there were eight categories of statements concerning current social problems. The student responses to the statements in each category were given detailed study, in order to discover the areas where the students were particularly strong or weak, and to point out the areas where the greatest gain was made during the three month interval between the first and second tests. Our findings in each of the eight categories will be presented in the following pages.

Labor unions.

There were eleven statements about labor unions in the Inventory, one of which is listed below: (Rating of judges in parenthesis)

86. "Most labor unions leaders are a bunch of racketeers". A B C (D E)

On the first test, only 46% of the Social Science group agreed with the judges, (that they disagreed with the statement), but the percentage rose to 54% on the second test. The low percentage of students who agreed with the judges

on the above statement may seem surprisingly low, but it is really a typical illustration of the situations one encounters in studying attitudes.

It was in the "labor union" category that the greatest gain was made in the scores of the second test, as compared with the earlier test scores. (The gain was 5.7%) This may be due to the fact that the majority of the Freshmen students had been raised in small Minnesota cities or villages, and had not been in close contact with members of labor unions. Because many students lack information on the objectives and organizational pattern of labor unions, the social science instructors found it possible to modify some of the prejudice that apparently existed toward unions. (Note that 54% of the students, when first tested, *did not disagree* with the statement that "most labor union leaders are a bunch of racketeers".)

Domestic minorities and race relations.

There were fourteen statements in the Inventory about "domestic minorities and race relations", of which the following statements are typical: (Judges ratings in parenthesis)

13. "We should end discrimination against the Negro in schools, colleges and universities." (A) B C D E

79. "'Objectionable traits of minority groups are found to disappear as friendships and associations are built between groups." (A B) C D E

The student responses to the above statements were somewhat disappointing, although 75% joined the judges in *strong* agreement with No. 13, and 82% were with the judges in approving No. 79. The disappointing aspect of the responses was the slight *loss* on the second test, instead of the gain that would be anticipated after additional college training had been received.

This area is undoubtedly one of the most difficult in the social science field because of the deep-seated prejudices which interfere with objective attitudes toward persons with a different colored skin or religion from our own. In Minnesota, the number of colored persons is not large, although there are groups of Negroes in the Twin Cities, Indians in the northern counties, and Mexicans in the Red River Valley. In spite of the small number of colored people in Minnesota, however, there is ample evidence of hostile attitudes on the part of the whites. The tenacity with which our people retain their attitudes, in spite of college training, is shown by the fact that 625 students in State Teachers College showed *no change* in their responses to fourteen statements about "domestic minorities and racial relations" after three additional months of training.

Understanding democratic principles.

Thirteen items in the Inventory dealt with the category of "understanding democratic principles". In this area, the gain (1%) shown on the second test was also disappointingly small, although the point should again be made that a gain, however slight, should be interpreted as an encouraging symptom of successful work in the area of attitudes.

One example of the unexpected reactions of students is shown by the following statement: (Judges' rating in parenthesis)

34. "Any nation that does not have free elections from time to time is undemocratic." (A B) C D E

All eleven of the Judges agreed with the above statement (six agreed *strongly*) but only 65% of the students were in agreement with the Judges. While it may be true that the students who did not agree with the statement would not support a proposition that it would be possible to maintain a democratic government *without* free elections, it is quite clear that they were deficient in their understanding of democratic principles. In fairness to the students, however, it must be admitted that many of the statements in this category involved concepts of democratic principles that are not commonly understood by persons who have not devoted considerable study to political science. The average American citizen confines his participation in democratic government to an occasional vote for candidates who run for office, and gives little thought to the underlying principles of our theory of government. This fact (although important in understanding attitudes toward government) does not justify social science teachers, however, in adopting a complacent policy; but should stimulate them to use every resource at their command to develop a constantly increasing number of citizens who have a thorough understanding of democratic principles.

Student responses for two other statements in the category we have been discussing brought out an interesting example of an inconsistent application of attitudes. The two statements are shown below: (Judges' rating in parenthesis)

24. "It is undemocratic to spend taxes collected from the people of New York State for public education in Georgia." A B C (D E)

53. "We must attempt to equalize social services (such as education, health, housing, etc.) in the various regions of the United States." (A B) C D E

While 85% of the students agreed with statement No. 53, only 67% of them *disagreed* with No. 24. In other words, 18% of the students demonstrated a lack of consistency in applying an attitude in two contradictory statements, because they failed to recognize the fact that social services can not be equalized unless the wealthier states are taxed to share the burden of the poorer ones. Once more, however, it is possible that many students do not understand our taxing system clearly, and may not even know that New York is considered to be wealthy, and Georgia poor; - so their apparent inconsistency may be due to inadequate knowledge, and nothing else.

Government versus private enterprise.

"Government versus private enterprise" has been one of our most controversial topics in the last twenty years since the New Deal embarked in many activities that had previously been left to private enterprise. The strength of the convictions held by college students on this subject is shown by the fact that there was almost no gain in the scores of the second test over those of the first test. Since the federal government has not developed any large-scale

operations in Minnesota, it is probable that our students at St. Cloud are not as favorably disposed to such activities as would be the case for students in states like Tennessee or Washington. The occupations of the parents of our students might also be influential in building conservative attitudes toward governmental activities.

It is this area that the cry of "socialism" is most pronounced, and the social science instructor finds himself in highly controversial situations in bringing the issues before his classes. One example from the Inventory will illustrate the point: (Judges rating in parenthesis)

80. "The socialization of medical and hospital services should be encouraged". A B (C) D E

On this statement, the Judges disagreed with each other; - four expressed *agreement*, three *disagreement*, and the other four "*undecided*". (Their group rating, therefore, was "*undecided*".) Only 20% of the students were "undecided" on the above statement in either test, but we can only speculate about the relative proportions who agreed or disagreed, because the scoring methods did not disclose the nature of "wrong" responses.

Economic nationalism.

The statements included in this category were concerned with such matters as tariffs, international trade agreements, and national self-sufficiency. The scores for the eleven statements in this category showed a gain of less than 1% on the second test, but this result is not surprising or disappointing, since the issues involved in this category are complex and difficult for students with "average" training. Two statements from the Inventory will illustrate this points: (Judges rating in parenthesis)

22. "Any increase in the standards of living abroad will be at the expense of the standard of living in our own country." A B C (D E)

97. "By raising the standard of living in backward countries, we can increase trade with them and raise our own standard of living." (A B) C D E

Ten of the Judges disagreed with No. 22, and all eleven disagreed with No. 97, thus illustrating a consistent position. The scores of the students were not so consistent, however, since only 69% disagreed with No. 22, and 87% agreed with No. 97. This brings up a situation similar to the one reported earlier, where 18% of the students did not keep a consistent viewpoint in two contradictory statements. In the examples given above, it seems clear that many of the students were guilty of "crooked" thinking.

Internationalism versus political nationalism.

If this category had been named "internatalism versus isolationism", it would have stated the issue in conformity with common usage. Student reactions to the statements in this category indicate that Minnesota citizens are becoming more internationally minded than has been commonly supposed in recent years. Attitudes on "internationalism" are not as rigid as those in some of

the other areas we have reported; - there was a gain of 2.5% in the scores of the second test. There is also considerable evidence that the level of understanding in this area is reasonably high.

American experiences in recent years have undoubtedly caused many midwesterners to become more open-minded in considering our relations with other countries. This attitude is reflected in the evident willingness of college students to give earnest thought to the activities of the United Nations, including UNESCO, the Security Council, and other related organizations. In this area, therefore, we will find college students eager for information, and without hard and fixed prejudices that hinder them in adopting new attitudes.

Religion.

Religion is given consideration in some of the social science courses at St. Cloud State Teachers College because of its importance in modern life, and its influence in specific social problems. The faculty does not attempt to provide any semblance of religious instruction along the pattern followed by various denominations, in fact there is no effort to interfere with the religious beliefs of the students. In discussing the effect of various religious groups upon society, the objective is to develop fair-minded, tolerant attitudes that are compatible with the principles of democracy.

The scores of the students on the first and second tests indicated that their attitudes on religion were *unchanged* during the three month interval between tests. This fact should be reassuring to parents who fear that the religious beliefs of their children might be weakened by attendance at a state college.

Imperialism.

Student responses to ten statements concerning "imperialism" indicated that attitudes in this area are not rigid. (There was a gain of 3.2% on the second test.) Typical statements under consideration in this category are illustrated by the following exerpts: (Judges ratings in parenthesis)

41. "There should not be any territorial changes made that do not accord with the freely expressed wishes of the peoples concerned." A B (C) D E

72. "The lives and property of American citizens must be protected, with severe measures if necessary, in all parts of the world." A B (C D) E

Any trained social scientist would recognize the existence of many possible ramifications in the above statements, and it is not surprising that the Judges expressed an "undecided" reaction. Since most of the students had received a limited amount of training in the social sciences, they had a tendency to agree or disagree with the statements, especially on the first test. It is interesting to note that the students became more "undecided" after an additional three months of college training which included a social science course.

CONCLUSION

In this article we have presented a brief discussion of recent experiences in teaching the social sciences at St. Cloud State Teachers College. We have stressed the aspects of our work that are most important in influencing the attitudes of our students toward modern social problems. Perhaps it is advisable to state at this time, however, that we do not emphasize attitudes as such, but use them as a motivating influence in stimulating the thinking of our students. In other words, it is not our purpose to tell the students *what* they must think; - but to assist them in developing the skills and habits of learning *how* to think. Most of our time in the classroom is spent with the presentation of the known facts about the subject, and it is from these facts that the students are expected to form conclusions.

As a result of the study that formed the basis for this article, the writer formed the following conclusions:

1. A significant gain in social understanding was made by the students who partcipated in the two tests, using an Inventory of Student Attitudes. The members of the social science sequence courses made a greater gain than the two "control" groups. Since it may be assumed that all students in the College receive equal benefits from such courses of education as (a) other college courses, (b) newspapers, (c) radio and television, (d) public discussions, etc., the gain of the social science sequence students must have been due to the fact that they alone received the benefit of college courses definitely planned so as to develop social understandings.

2. Progress is being made in the development of habits of critical thinking, as shown by the gain in social understanding. There are some evidences, however, where the study revealed the need for greater attention to the training of students in a more consistent application of their attitudes under varying conditions.

3. The students and Social Science instructors are in general agreement that the sequence courses successfully bridge the gap between high school offerings and advanced college courses in the Social Sciences.

4. There is a definite relationship between factors such as age, sex, high school rank, college aptitude, college training, college marks, - and the social judgment of a given college student. On the other hand, there is little relationship between the social judgment of an individual and the size of his "home-town", or the county of his residence.

5. Social Science teachers should not hesitate to discuss controversial social problems, providing they emphasize objective methods of getting at the facts involved, and letting the facts speak for themselves. Attitudes can be modified, providing the student is able to locate and digest facts which prove, to the *student's* satisfaction, that his original attitude was faulty.

6. Gains in social judgment were greater in areas such as "labor unions", "internationalism versus isolationism", and "imperialism" than in the other categories used in this study. There were *slight* gains in the areas concerned with "domestic minorities and race relations", "understanding democratic principles",

and "economic nationalism", but *no change* in regard to "government versus private enterprise" and "religion". The relative gain in each of the categories is probably due in part to the amount of attention given them in college classes, and partly to the strength of the convictions held by the students.

7. An Invenory of Student Attitudes, similar to the one used in this study, is a valuable aid for all social science teachers. The data gained from this procedure would be invaluable for each instructor:

a. By showing which areas need to be given the greatest stress.
b. By revealing the degree of social understanding possessed by each student at the beginning of the course.
c. In providing an initial motivating influence for the students.
d. By providing concrete teaching material for the development of consistent social attitudes. Such material would be available if a number of contradictory statements were included in the Inventory, thus affording an opportunity for the teacher to show individual students that their responses were either consistent or inconsistent.

8. An evaluation program should be a continuous process. Each social science instructor should make constant use of his research skills in evaluating the effectiveness of his program.

9. Instruction in the social sciences is more effective if there is considerable participation by the students in classroom discussion. For this reason, large classes are not desirable and constitute a definite barrier to freedom of student expression. Where large classes are unavoidable, the instructor must rely upon the traditional pattern of "lecture-study-test", and thus be deprived of an opportunity to use more effective methods.

POSTSCRIPT

My colleagues in the Social Studies Division have been most cooperative in helping me in this study. They should not be held responsible for any statements in this article with which the reader may disagree. This statement is made because of the use of the words "we" and "our" in various portions of the article. "*We*" accept full responsibility for the article, because "we" in this case means "*me*"! R.G.R.

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What's Your Score?

RICHARD S. MITCHELL

Here's a test to improve your projector-operating skill.

WHAT type of test can be made to improve the work of school movie projectionists?

A test of projector-operating skill for student projectionists, audio-visual class members, teachers perhaps, and others, should provide objective observation and scoring of *performance*, reveal clearly the standards of measurement, and encourage the projectionist to engage in self-improvement to attain skills and habits that will mean good picture projection under typical operational conditions. We hope we have here such a test to encourage the projectionist with a flair for precision and perfection of good performance.

If you have a test like this, we hope you will share it with us. If you use or improve this test of ours, please let us know how you have changed or used it. We shall be grateful for your ideas.

Our test instructions may look long. We hope they are also exact. Students use these printed test instructions and the projector-operation test-score sheet to guide and self-test their projector-operation practice. These printed instructions enable students to test each other during projection-practice periods. Thus practice periods are used more intensively and effectively. This test used by students to challenge self-improvement in their projection techniques, saves instructors' time for more rewarding tasks.

You will see that the test includes two steps, two and nine, which require threading the projector while being timed. This timed test is thus repeated because we feel it is important that there be a second chance to show this valuable projection skill. The start and end of the timed parts of the test are defined in the test instructions to increase the objective scoring which should result from use of the test. On modern projectors, designed for simple threading, most of those whom we test can earn the full number of points allowed on these timed parts of the test.

Bonus points are given to students who prepare themselves to try the test on an early date rather than procrastinating until late in the afternoon of final exam day. Bonus points are given too if the student is trying the test for the first time. These bonus points may offset the advantage otherwise gained by the student who has tried and experienced the test previously. Of course, students can self-test themselves or each other in projector operation as many times as they wish before having their test before a regular examiner, such as the instructor of the audio-visual methods-of-education class.

The number of points assigned to individual test items was based on the need to encourage self-improvement most in those aspects of projection in which the greatest carelessness had been noted, and to reflect the difficulty of the individual task in the total projector operation act.

Some students are tested on projectors which can not show stopped single

frames or reverse. Usually the simpler threading of these projectors enables the typical student nevertheless to score as high on the total test as he would have scored on a projector with stop and reverse projection features. However, the brand of projector and model is noted on the test-score sheet.

This test has helped some of our college teachers who were guilty of careless projection practices, such as showing the numbers on the film leader and assuming that bad sound synchronization is always the fault of the film producer.

We recognize that while projection services will often be supplied by student operators, there are times when a teacher needs to know and wants to know the *how* of good film projection. We also know that *teaching* with a film and *projecting* a film are two different tasks. In a classroom the second has little purpose without the first. But sometimes unsolved problems of projecting a film will reduce the teaching effectiveness that can be secured from a film's use.

This test has given in-service teachers a standard by which to self-measure their projection techniques. Teachers who regularly allowed the screen to "go white" because they failed to turn off the illumination lamp at the end of a film, or who did not know kow to regulate the framing control or even that such control was there, have now used this test to check their projection skill and challenge themselves to form better habits for correct projection of motion pictures.

At the end of a film showing, test instructions call for immediate rewind of film or cooling of the projector illumination bulb by brief operation of the motor and its fan while the bulb is turned off. We emphasize that cooling the bulb thus to prolong its life is done only when this will not impair discussion or teaching effectiveness of the film, and films should not be rewound if they are to be sent back to a film library which prefers to rewind returned films during inspection.

To improve audio-visual equipment operation practices, we would like your help in improving this test and in devising similar tests for other types of equipment.

Please share your audio-visual test ideas with us!

16mm Projector Operation Test Instructions

Your ability to efficiently operate a 16mm sound motion-picture projector will be observed and scored to help you improve your skill as a projectionist.

There are no "tricks." Simply do your best to demonstrate orderly and accepted procedures by performing the steps outlined on this instruction sheet. You may omit any of those steps which can not be performed on the projector on which you are being examined. If for this reason you omit any of the test steps, tell the examiner that you are necessarily omitting these test steps. You may assume that the projector has been oiled, although you will be asked to show that you know how it should be oiled.

16mm Projector Operation Test Score Sheet

Test of ..... Projector ..... Date .....

BRING this sheet with you to the test with your name already entered at the upper-left. Hand this sheet to examiner before you start test so that he may score your work.

	Points	Notes
Bonus points for first test scheduled for examinee	5	
Bonus for taking test on early date	5	
Performs on projector of examiner's choice	5	
Changes illumination bulb	3	
Shows how to change exciter lamp	1	
Shows where to oil	1	
Cleans lenses, including condenser, both sides	2	
Cleans film-gate area (Removes parts if necessary)	2	
Cleans film path thru other parts of projector	1	
Checks projector aim before threading	1	
Checks lens focus before threading film	1	
Uses focus lens set screw	1	
Uses best size of take-up reel	1	
Threads projector correctly and quickly (Time Score: 15 minus 2 x number of minutes used)	13	
Checks by feeling film position on toothed wheels	1	
Uses hand-turned thread-check knob (clutch out)	2	
Warms amplifier while threading film	1	
Checks reverse and speed (silent-sound) controls	1	
Has no light on screen before title	2	
Has no sound on before title	1	
Has room lights off at correct time	1	
Has projector light on for film title	2	
Has sound on for title	2	
Uses both tone and volume controls	1	
Adjusts for exact focus before title's end	2	
Checks film by hand for damage by projector	3	
Provides good sound synchronization	5	
Shows single frame	1	
Shows reverse correctly	1	
Uses frame adjustment control	2	
Stops film with light and sound off first	2	
Removes film efficiently	1	
Rethreads film efficiently (10 minus 2 x no. of min. used)	8	
Has sound on until end of film	3	
Has light on until end of film	1	
Has room lights on at right time	2	
Has sound off after end of film	1	
Has projector light off after end of film	2	
Leaves motor on until film is thru projector	1	
Uses correct rewind pattern	1	
Does not grab reel to stop its spinning without shutting off motor after film rewind or showing	1	
Operates motor to cool projector bulb briefly	1	
Replaces film and take-up reel where they belong	1	
Leaves projector with all power turned off	2	
Leaves projector ready for next showing with (forward/rewind) switch ready for forward projection	1	

Secure film and take-up reel from the equipment room or near the projector. Return these after the test.

Use the projector and room assigned, if possible. This entitles you to bonus points. However, it you prefer, you may elect to take the test on the projector of your choice rather than accept the bonus.

This instruction sheet should be used during the test, and the procedure which is outlined for this performance test should be followed without waiting for instructions from the examiner other than the signal to start. If the examiner wants the test to be changed or shortened he will tell you.

You should see the test scoring sheet before test time. However, neither the test scoring sheet nor projector threading diagrams should be consulted during the test.

Credit will be deducted if it is necessary for the examiner to give information during the test about projector operation. For an error which might damage film or projector, the test will have to be retaken on another day for a passing score. If the examiner assists so that loops of film are properly positioned, credit will be deducted.

Follow these ten test steps when you are told to begin:

1. Show how illumination bulb is replaced (remove it and replace it).
2. Show how exciter lamp can be removed (but do not actually remove it).
3. Show where you would oil projector and tell how much and how often.
4. Thread and begin showing of film *after* correctly making *all* pre-show checks and adjustments. From the time when you cause the film or its reel to touch the projector you will be timed until the film *title* (sound and image *correctly* adjusted) appears on the screen. You should correctly control room lighting at all times during the test or direct that this be done for you.
5. After showing first minute of film (and not more than two minutes of film), show a single frame of the film ("stopped"). Show how you would handle this procedure if it were necessary to study the same scene "stopped" for more than 15 seconds.
6. Show another thirty seconds of the film in regular forward direction, and then show about twenty seconds of the film in *reverse*. Show this part of the film again in forward direction. Continue showing film.
7. Hold a card, piece of paper, or other light-colored, flat object about two or three feet in front of the projector lens and focus the picture image clearly onto this surface. Show film clearly on this close-up for at least twenty seconds. Remove the card from in front of the projector and refocus the picture image on the screen. Continue showing film.

8. Show that you can use the framing knob by getting the picture "out of frame" and then readjust to the correct frame position.

9. Within thirty seconds of above procedure, stop the projector, remove the film from the projector, and wind the film quickly forward by motor power or by hand (whichever will be more efficient on the equipment you are using) to within two minutes of the end of the film but at least one minute from the end of the film. Rethread the film and properly show this final portion of the film.

10. Rewind and replace the film where you obtained it. Leave the projector equipment as it should be left for the next user "tomorrow".

Note: Your practice of projection procedure before test time should enable you to complete the steps of this test within twenty minutes. SHORT FORMS OF THE TEST may be given which omit steps 5, 6, and maybe 7. In addition, step 9 will be omitted if you are taking a short form of this test with a film that is 100 feet long or shorter.