STUDENT PERCEPTIONS OF FRESHMAN

SOCIAL SCIENCE COURSES

by

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CHAPTER I

INTRODUCTION

The Oklahoma Panhandle region is a sparsely populated area, pri-
marily agrarian in its history. The people of the area are often des-
cribed as conservative on political and economic issues. The only four-
year college located in the region is Panhandle State University. Most
of the student body come from a one hundred mile radius around the Uni-
versity, located near the center of this Oklahoma region. All students
attending the University are required to enroll in a minimum of three
social science courses to meet the general education requirements (1).
The freshman college students enroll in one or more social science
courses in slightly more than eighty percent of the course schedules
approved in winter semesters (2), so a large sampling of the sophomore
class would be meaningful in terms of the regional student needs.

Statement of the Problem

A common complaint of college and university social science pro-
fessors is that high school graduates who enter freshman and sophomore
courses in social science in college are poorly prepared. Poorly pre-
pared ususally means the student does not have the information or
analytical skills necessary to perform well either in the higher educa-
tion classroom or on the national assessment tests students are

required to take prior to college admittance. There is some evidence
to support this claim (3).

The student adjustment required throughout elementary school, high
school, and college within the social studies division is often diffi-
cult. Some of the difficulty is due to the transformation of social
studies to social sciences. Welton and Mallan (4) suggest that when
the social science disciplines are simplified and taught as the social
studies the emphasis in most schools is placed on the product or find-
ings of a social science discipline. As the student moves into the
social science courses, the emphasis shifts to the process or proce-
dures of the discipline, creating some confusion for the student. To
a great degree much of the burden of adjustment has been required of
the student. This period of transition results in student frustration,
teacher criticism of students' preparedness, duplication of content
material that is boring and time consuming, and voids that are defined
as important by someone. This study proposes to take a micro look at
this problem. Specifically, this study proposes to investigate the
nature and quality of social science preparation of public school stu-
dents in the Panhandle region of Oklahoma. The major research questions
are: (1) How do college students perceive the quality of their social
science courses as preparation for college, and (2) How does student
perception of their high school preparation relate to their performance
in college classes in the social science subjects.

Hypotheses

H_o: There is no significant difference in the student ranking of
high school preparedness for college freshman social science courses

among college students receiving grades of A, B, C, D, or F.

H_1: There is significant difference in the student ranking of high school preparedness for college freshman social science courses among college students receiving grades of A, B, C, D, or F.

The Kruskal-Wallis one-way analysis of variance by ranks, a non-parametric statistical test, will be used to test the hypotheses. The level of significance must be .05 or less before a null hypothesis may be rejected.

The Need for the Study

A longitudinal study from the ACT history file of students was reported by Ferguson and Maxey (5) in 1976 in which the trends of grades and ACT scores were compared. This study is restricted to cognitive achievement, but is correlated with high school and college grades. The social studies segment shows significant changes in both grades and ACT scores from the 1966-67 year to the 1972-73 year. The mean high school social studies grade increased from 2.79 to 2.99 in the seven year per-iod, while the ACT scores decreased for the college bound students from 20.5 to 18.1. Changes in this same direction were also found for college freshman students. Their first semester overall grade point average increased from 2.09 to 2.46 in this same time period. The college enrolled students had a higher set of ACT scores than did the college bound students for the years this information was reported, 1970-1975, however, the ACT scores of this group also were declining. Because the ACT measures knowledge areas and does not attempt to evaluate changes in attitudes and values, a complete picture of the social studies learning is not given from this study, only that a negative change in knowledge

achievement has occurred. At least three broad explanations for the changes are possible. First, teachers are more lenient in the evaluation of student performance; second, teachers are placing more emphasis on affective learning and less on cognitive skills; or third, a change in the college bound population has taken place as the less well prepared are now included. Because of the negative change in ACT achievement and the increase in the grade point average, it is increasingly evident that some changes are occurring in the social studies areas. The reasons for the changes are not conclusively understood. Student opinions are one additional information source that might bring some illumination to the seemingly contradictory situation.

This particular study is needed to provide the student opinion to guide both secondary and college faculty in curriculum planning. Secondary teachers and college faculty in the social sciences have proceeded in curriculum planning as if neither group existed and as if the student's perception of his own needs were unimportant. This study should provide a first step in creating awareness of the perceived needs of students for both secondary school and college faculty. Using students, who have completed college social science courses as experts, strengths and weaknesses of the curriculum will be identified. College course material can be adjusted to adapt to these needs and high school social studies teachers can also be informed of the regional student evaluations. This awareness should improve curriculum planning.

Locally, the division chairman in charge of the teacher education program at Panhandle State University (6) stated that more student input is needed for additional curriculum strength at the college level and further that this is a criticism of the teacher program by North

Central Accrediting of Teacher Education in a review of Panhandle State University. This criticism was made even though a well organized student input plan had been implemented with student involvement at many levels of curriculum organization. It would seem that more student influence is needed as viewed by teachers, administrators, and accrediting agencies. The methods of student involvement are many, but a more successful system must be developed if the educational process is to respond more effectively.

The most immediate and pressing need of this study will be to provide specific information in each discipline for curriculum planning for the social science program at Panhandle State University.

It is hoped that secondary school faculty in the region will be assisted by the findings of this study and that they can direct their curriculum reform efforts more specifically toward students' perceived needs. Including students' perceived needs in the curriculum planning should motivate students and create a more successful transition between high school and college. Student apathy, a current problem, thus can be dealt with effectively by utilizing the students own interest. These interests will be reflected through the Delphi process.

This is a timely study in the sense that there is a national and local concern with curriculum development in this area, needs assessment, and competency based education. Both on the secondary and college level, the teachers of the Oklahoma Panhandle have been struggling with needs assessments, developing measurable objectives, and program development. This study should provide an orderly and empirical base of information from students, which should be helpful in these tasks.

Purpose of the Study

The purpose of this study is to achieve a consensus of opinion of college sophomores, who have completed social science courses, concerning the strengths and weaknesses of their background preparations.

In the Panhandle region there is a close personal interaction among educators, primarily due to the fact that the college teacher education program involves practically every public school in the area. This encourages an exchange of ideas and a sharing of the area's educational problems, with the university acting as a central hub in this total process. The next step is simply to include more student involvement with the Delphi technique. This research procedure, the Delphi technique, will effectively reduce the time lag and provide information to ease the transitional process required of students in the social science disciplines.

Assumptions

1. Students are capable of, and in fact do, rate their perceptions sincerely.

2. The respondents are a representative sample of the population.

3. A reduction in rating variance of the skills needed is an indication of convergence of students' perceived needs.

4. The high schools of the area want to prepare some percent of their students for college.

5. The social science courses at Panhandle State University are representative of the disciplines in terms of knowledge and skills they emphasize.

Limitations of the Study

The study was limited to a sample of the sophomore class attend-
ing Panhandle State University in the two winter terms of the 1976-77
year. All regional sophomores had an equal opportunity to be included
in the study. A second limitation was that only college student per-
ceptions were used in evaluating the secondary school experiences. A
third limitation concerns the accuracy of students' perceptions as they
relate to the high school curriculum with the college requirements.

Concerning this last limitation, a research study by Holen and
Newhouse (7) of Kansas State University found student self-evaluation
to be as reliable as any other performance predictive device (e.g.
high school grade average, college grade average, CEEB or ACT scores)
and significantly better than most predictors. Self-evaluation relia-
bility indicates students know something about their own preparation or
achievement not accounted for by their other educational history. The
study concludes that students do have the ability to evaluate their
past and predict their future educational performance and these stu-
dents can provide highly individual input not available from other
sources.

Since student input is unique and also as accurate as other methods
in evaluating the past in terms of future performance, the Delphi tech-
nique of student generated instruments would seem a likely method to
gain insight as sophomore level students evaluate their precollege prep-
aration for the social science courses in the freshman college year.

Definition of Terms

Sophomore Population - those students enrolled at Panhandle State

University and classified as sophomores by the Registrar in the

1976-77 fall semester.

Regional Secondary Schools - the secondary schools with former students

now attending Panhandle State University and located within the

one hundred mile radius of the university.

Social Science Curriculum - those courses taught at Panhandle State

University within the disciplines of economics, geography, his-

tory, political science, psychology, and sociology.

Well Prepared Areas - one of the two general classification terms used

to solicit information from students in reference to their high

school preparation.

Least Prepared Areas - the other general classification term used to

solicit information from college students in reference to their

high school preparation.

New Areas - components of a college discipline suggested by students

that should be included in the college course.

Areas of the Discipline - this refers to any course, part of a course

or a combination of courses which are now a part of the social

science curriculum at Panhandle State University, and is used

interchangeably with the term factors of the discipline. Both

terms were used to avoid inhibiting student response and to

improve clarity.

Ranking Scale Terms

Ranking Scale - an 11-point continuum ranging from a numerical

value of one to eleven.

Best Prepared - this is the verbal description indicated by a numerical value ranging from 1.0 to 5.54.

Least Prepared - this is the verbal description indicated by a numerical value ranging from 6.55 to 11.0.

Neutral or Non-Directional - this is the verbal description indicated by a numerical value ranging from 5.55 to 6.54.

Well Prepared - synonymous with best prepared, but on a different ranking continuum.

Not Well Prepared - synonymous with least prepared, but on a different ranking continuum.

Most Important - synonymous with best prepared, but on a different ranking continuum.

Least Important - synonymous with least prepared, but on a different ranking continuum.

Methodology

The Delphi technique, developed by the Rand Corporation, was employed for this study (8). The Delphi technique encourages a great deal of subject input and minimizes the pre-determined directional influence of the researcher. The college sample subjects evaluated their own experiences, which they had previously expressed. The process involves getting individual reaction to specific questions or statements, organizing these reactions, and once again asking the population to individually rank and review the findings, until a priority of order is determined through a convergence of opinion.

The relationship between the student perception and the ranking of these perceptions was then related to their college freshman grades

in specific social science courses through the use of the Kruskal-Wallis one-way analysis of variance. This procedure is a student input analysis of the high school curriculum as preparation for the freshman college year.

CHAPTER II

REVIEW OF THE LITERATURE

An assessment of the transition between the high school and higher
education in social sciences can be based on several central themes.
Among these are performance, as measured by grades or standardized
testing, social adjustment of the student, curriculum specialists, who
set standards often accepted as the final word, and student opinion.
The last concept, student opinion, has often been viewed as one with
much potential, but very weak in reliability. The unreliable reputa-
tion is two-fold. The manner in which student input is gathered, and
secondly, the use of this information after it is available. The
second problem of use is immaterial unless the first problem of obtain-
ing reliable information has been dealt with effectively. The Delphi
technique can be the means of obtaining more reliable information.

Studies Using the Delphi Technique

The Delphi technique was used in a study of adult educational needs
for Oklahoma by Collins (9) in 1974. In this study, 75 adult educators,
who were described as having expertise in the field, expressed opinions
to seven open-ended statements concerning adult education programs.
After their responses were consolidated from the first correspondence,
a second correspondence sheet was prepared. It consisted of their
original responses along with the request to rank each statement on an

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11-point continuum. A third correspondence was then made and sent to
each respondent to indicate the total group's average ranking, along
with an opportunity to change the ranking of any or all of the state-
ments if desired. A consensus was reached among these experts about
the future desired actions of adult education. In total, fourteen
recommended actions were agreed upon through this successful study.
The study followed a general format of using experts in a collective
way, without bringing them together in a face-to-face encounter, which
can precipitate personality conflicts.

In an attempt to determine the permanency of the opinions of the
Delphi participants, a study of Uhl (10) reissued the same questionnaire
one year later. This study centered on the identification of educational
goals and objectives for higher education as viewed by twenty-six faculty
members in different institutions. Specifically, each faculty member was
asked to express their perceptions of their institution's goals and to
rank the degree of importance they thought should be attached to each
goal. In the analysis of both questionnaires, administered one year
apart, the ratings were found to be very similar. The question of per-
manency is not answered in a final sense, however, the indication of con-
sistency is evident, suggesting the Delphi technique has underlying
strengths that allow the participants to repeat with consistency.

While the Delphi technique was developed for the purpose of future
forecasting by the Rand Corporation (8) in the early 1950's, it has been
used in modified forms for educational research since the middle 1960's.
In a study by Eure (11) at the University of Alabama the Delphi tech-
nique was used among faculty members to identify and arrange a rank order
for the goals of a core curriculum. The process was summarized as a

useful procedure in the identification and ranking of goals, and also
was useful in assisting the respondents in moving toward a consensus
view of these goals in succeeding rounds of evaluation.

In a review of the Delphi technique for the purpose of developing
a modified Delphi process to obtain a consensus on the priorities for
research and development funds, Hughes (12) explores both the strengths
and weaknesses of the Delphi technique alternatives. Among the conclu-
sions of this study is that a process of simply rating factors by
assigning a numerical value is more economical if a large number of
factors or statements are to be ranked. However, including a scale for
each item is preferred if the number of items will not dictate that the
questionnaire become too lengthy. A second important conclusion was
that the inclusion of the term "medium importance" was to be avoided
as it discouraged discrimination in the low range of rankings. If
"medium" was placed above the center of "4-5" on a 10-point scale, few
respondents ranked below this level. A final conclusion was that the
administration of the third round of the Delphi correspondence obtained
an approximately optimum efficiency and dependability when evaluated in
terms of probability that the observed ranks represent the "true"
(universe) ranks.

The Oklahoma State Department of Vocational and Technical Education
used the Delphi technique to determine their goals for the 1970's. One
hundred and three selected leaders from local, state, and national
authorities were the designated respondents, and were asked to state
opinions about directing the use of resources and personnel energies.
This study by Hopkins, Ritter and Stevenson (13) received a 61 percent
return to the first correspondence. This was categorized, and a second

correspondence sheet was sent to the participants to rank the statements
on an 11-point continuum. A 90 percent response was received on the
second round of inquiry. These returns were ranked and formed the core
for a third correspondence sheet, in which the respondents were asked to
review the rankings and make any changes in the rankings that they
believed were not correct. An awareness of factors and areas of impor-
tance in future planning was thus obtained and used in the plans for the
1970's.

The Value of Social Studies

The social studies curriculum is of critical importance to a siz-
able proportion of students as they continue from high school to college.
In 1974 Fidler and Burnett (14) analyzed in some detail a questionnaire
prepared by the American Council of Education. It found 13.1 percent of
the nation's university students were social and behavioral science
majors. This rate was exceeded only by math and science with 16.8 per-
cent and business majors with 13.2 percent. The study, made in the fall
of 1973, obtained data from 579 institutions of higher education.

The large number of students majoring in the social sciences is
not surprising, for the recognized value of this area of study has been
evident to a large number of students for a lengthy time span. In 1941,
Evans (15) reported on a survey of the high school graduates of Indiana-
polis, Indiana where English and social science courses were listed as
the courses most helpful. Nearly 25 percent of these graduates had
attended some college. A current study in 1975 by Berryman (16)
compared high school seniors' perception of social studies with other
courses. He found eight high-rated advantages for social study courses,

the most notable being: (1) more interesting, (2) having more practi-
cal value, and (3) requiring more student decision making. This study
involved 797 students in 19 high schools. These students also indi-
cated the direction of the future curriculum is toward career prepara-
tion, and the social studies were contributing as much as other courses
in this preparation. The conclusions of this study are not without
exceptions, as exemplified by Fernandez and others (17) who found in
1976 students believed that social studies ranked behind math and
English for entry into occupational futures. The Fernandez study
suggests,

> The basic social skills that are supposed to be taught
> in social studies are either not being communicated to
> the students or the students are not perceiving them
> as important for their futures....it would appear from
> our findings that teachers of social studies have ser-
> ious problems (p. 56).

Remy (18) proposes that the primary contribution of the social
studies courses in preparing the college-bound, middle-class high
school senior for a future is to teach them how to analyze and evaluate
political, social, and economic problems of national and global magni-
tude. This is the conclusion Remy reached upon analyzing a question-
naire given to high school seniors representing all fifty states
attending a special political educational program in Washington, D.C.
in 1971. He further states that we know little about what students
think about civics and government courses for rarely have they been
consulted about their preferences, attitudes and needs.

Goals of Social Studies

The National Assessment of Educational Progress collects informa-
tion in ten learning areas, one being the social studies (19). The two

age groups assessed that are of interest to this study are the 17-year-olds and the adults (ages 26-35). A sample of approximately 2500 persons is used as representative for each age group for the nation. A selected group of experts in social studies, composed of educators, scholars, and lay persons, select objectives in social studies they feel Americans should achieve. Testing for results toward these objectives is undertaken every five years. Because the national assessment includes all citizens, the program has an overriding impact on all educational efforts.

The social studies objectives are broadly described as:

1. Have curiosity about human affairs;

2. Use of analytic-scientific procedures effectively;

3. Are sensitive to creative-intuitive methods of explaining the human condition;

4. Have knowledge relevant to the major ideas and concerns of social scientists;

5. Have a reasoned commitment to the values that sustain a free society (20).

Exercises used to measure these objectives can be classified as skill exercises, knowledge exercises, and attitudinal exercises. The results of 157 different exercises for the two age groups (17-years and 26-35-years) given in the 1971-72 year show a median skill score ranging from 70 to 80 percent for the three areas evaluated (19).

In a discussion of the goals of the social sciences, Savage and Armstrong (21) conclude a review of present guidelines leads to more confusion rather than enlightenment for the teacher or administrator. To reduce this confusion they do combine several studies to arrive at

a complex of target areas to be covered in the social sciences. Three

of the eight target areas involve direct personal student input, how-

ever, the student's role is left rather vague. The decision-making

process about the instructional program needed by a student is shared

by teachers, the principal, and the student in a series of National

Institute of Education supported programs operating in more than 1100

schools across the country (22). The National Institute of Education

administers the federal effort in research and development. The

inclusion of the student input in these efforts is indicative that

student evaluation of past educational efforts must be given serious

consideration in future curriculums.

Curriculum Development

It is necessary to determine the number of students who will bene-

fit by a high school curriculum that is oriented toward college prepara-

tion, if such revision is to be of value. Bruce Kramer (23, p. 229)

states that "In the 1970's it is almost impossible to find follow-up

studies of high school graduates in the published literature." This is

in reference to occupations of earlier graduates. While the high school

graduate may not currently be under study with regard to his job, he is

certainly being watched closely by the college administrators, and those

servicing the college and university needs.

In a nationwide sample study of career development sponsored by ACT,

Prediger, Roth, and Noeth (24) found 63 percent of eighth grade and 64

percent of eleventh grade students plan to take two or more years of

college. This study, made in 1973, covered 200 schools and had some

32,000 students in the sample group. Better career guidance planning

was the focal point of the study, however, it is significant that over
60 percent include college planning. A study by Ash (25) of 1,058
graduates of Carrollton High in Michigan between 1964 and 1975 found
that 55 percent of their graduates answering continued a college
education. They received replies from 60.5 percent of their grad-
uates. While it is currently popular to berate the secondary school
for their "failure" to offer adequate terminal career training, these
studies support the belief that a large number of high school students
do continue education at a college or university. One final study
must be mentioned for it indicates that financial needs and probable
success attitudes are important factors that may limit many from con-
tinuing education after high school. An experimental college bound
curriculum enrolled 11,000 students from poverty areas of New York
City. A random sample consisting of 1,285 students of the special
college bound curriculum enrollees completed a questionnaire at the
conclusion of the study in 1973, showing 98.1 percent were admitted
to college. In addition, 65 percent of these students felt they were
better prepared for college than the non-enrolled, indicating improved
self-concept (26).

An innovative approach that has been suggested, because of the
uncertainty in what and how to teach social studies, is offered by
Anthony (27). He suggests an interdisciplinary approach that places
emphasis on five different options. These are: traditional survey,
problem-solving, cross-disciplinary, community service, and independent
study. For the urban or metropolitan setting this might be a solution,
but for the small, rural communities, it would appear prohibitively
costly. A more serious consideration would be the still existing

problem of the best preparation. A suggestion that would delight most

social studies teachers, at least in the shortrun, is made by Vonk (28).

He suggests the environmental crisis to man dictates an urgency to re-

order the social studies classroom so it would become the nerve center

of investigation for the whole school. Vonk insists that only through a

massive and immediate redirecting of man's activities can we avoid pass-

ing beyond a population-nonrenewable resource conflict point that will

seal man's fate irrevocably (28). The curriculum, by necessity, would

be problem-centered participation and action. He does not differentiate

between the school and college curriculum as it would appear to be a

moot question. A more moderate call for reassessment of the high school

curriculum comes from Korfmacher (29, p. 154), when he states, "For it

is difficult to imagine anything of more dis-service to today's teen-

agers than an education oriented primarily, even exclusively, to con-

temporary society." His caution is less directionally selective, but

perhaps it reflects the view of many when he suggests pertinence is

important in education for today, tomorrow, and the day after.

In an attempt to rekindle some thoughts on curriculum development

in the high school social studies, Perrone and Thompson (30) from the

University of North Dakota, state that the usual starting place for a

serious study of social studies is with some specific body of knowledge

which usually does not consider the interests of either students or

teachers. Much research has been conducted concerning student prefer-

ence, but little is known concerning the degree of satisfaction of stu-

dents with their current state of preparation in the social sciences.

William Wilen (31) adds that educators have expressed their views as

to instructional approaches and most desired classroom climate, however,

student preference in the social sciences has not been ascertained.
He further suggests that we have underestimated the value of the student's opinion.

Relationship of High School Preparation
to College Achievement

A study by Ashcraft (32) in 1968 on the effect of the high school curriculum upon college achievement showed no significant difference in college performance between those students who had a college preparatory curriculum and those who did not have the college preparatory courses. This study was conducted over an eight semester period. The college drop outs could, and probably did, affect the results considerably. Ashcraft also adjusted the raw college grades of these two groups on the basis of their ACT scores, using the ACT as an indicator of cognitive ability. The raw grade scores were significantly higher for those with the college prepared high school curriculum (2.20 compared to 1.44 for the non-college curriculum in the first semester of college) but when adjusted to the ACT scores there was no significant difference. This study was made prior to the recent emphasis on vocational-career job preparation in high school, when little difference existed between the college preparation courses and other curriculum. It does indicate that considerable leeway may exist in defining what a good college preparation is. Also, this study only attempted to evaluate cognitive preparation and achievement.

A related type study by Jacob (33) in 1962, designed to specifically evaluate selected factors affecting history and political science course performance for Oklahoma State University, found that the general

ability entrance tests were significantly correlated to college course grades. The Ashcraft study agreed with this fact for the first college semester. Then, according to Ashcraft, the predictive value of the ACT scores declined. Jacob also found the students' high school teachers' preparation was significantly correlated with students' college grades, but there was no significant correlation between the college grade point average and the number of courses taken in history or government while in high school.

This last result is emphasized by Chapin and Gross (34). They write:

> Because typical students within a few weeks forget as much as 80 percent of the facts they have learned in the usual content-oriented social studies class, it is time to recognize the comparative inefficiency of the traditional approaches to our subject matter (p. 8).

Another similar study by Hensel (35) in 1962 also found significant correlations between high school math and English grades, ACT scores and college grades. While these and other studies do show high relationships, it becomes evident that a deeper understanding is needed before adequate curriculum changes can be undertaken with any certainty that the changes will be an improvement.

Another approach to linking high school and college curriculum was undertaken in the state of Montana and reported in 1974 (36). A commission study, designed to analyze the relationship between secondary and post-secondary institutions, was made with the emphasis on the competency of career and academic counseling. Both high school and college students were among the population contributing input data concerning knowledge of: testing out of college courses, time shortened degrees, concurrent enrollment, and improving relations. This commission study

did not consider the question of the student's view of their past prep-
aration. It would seem the Carnegie Commission on Higher Education was
a guiding influence for the above study, for the areas explored at
Montana are included in the recommendations for school-college coopera-
tion in Continuity and Discontinuity (37).

Students as Evaluators

"Course and Instructor Evaluation" by Finkbeiner, Lathrop, and
Schuerger (38) shows a high correlation between five specific student
factors and the course rating by college students. The study was
conducted to determine the factor structure of the instrument being
used at Cleveland State University, and to provide a means of revising
the content of the instrument. A course and instructor evaluation
questionnaire was administered to 1,616 subjects at the academic cen-
ters and to 6,352 subjects at the main campus. The data were factor
analyzed and yielded five rotated factors in each group, accounting
for approximately fifty percent of the total variance. The factor
matrices for the two groups were found to be significantly congruent,
which is interesting as the subjects were young freshmen on campus and
older part-time students at the academic centers. The five factors
were interpreted as General Course Attitude, Attitude toward Examina-
tions, Attitude toward Method, Instructor/Student Rapport, and Attitude
toward Work Load. A multifactor model of course attitudes was supported
over a simplistic two-factor model.

Peter Frey (39, p. 48) states, "I have found that students can
provide a general estimate of how much they have learned in the course,"
in his discussion of research involving 72 students' ratings of biology

and chemistry. Frey contends that the presentation-clarity and work-load traits taken in combination were the best predictors of good teaching, as they are not as apt to be contaminated by a student's own value system.

Grush and Costin (40, p. 55) concluded, "College students are objective consumers of the teaching process and their judgements should be solicited to identify variables important for teaching effectiveness." This study at the University of Illinois involved some 93 classes and 1,378 students enrolled in education and social science courses. The research was to determine whether effectiveness of graduate assistants as teachers was related to the student's own personality or biases.

On-going student evaluation was used in developing a Computer Assisted Remedial Education program in Pennsylvania (41). This novel program was based in a mobile unit and staffed by two full-time assistants. Student attitudes were used to revise and improve the physical conditions as well as the computer program. An analysis of the students' suggestions was made at each of three successive locations and it was determined that the students' attitudes had progressed positively as the suggestions at each location had been used to make improvements.

Research in Utah suggests how an instructor might improve his rating by students, thus again implying a high degree of reliability in student evaluations when viewed by administrators (42). Other variations of student's opinion studies have been used to gain support for humanizing the school. Car M. Foster (43) reports on the drastic changes for the Louisville Public Schools inaugurated in 1969 to attack the steadily worsening school problems that they faced. One of their changes

incorporated student input to create a more humane atmosphere. The purposes of another study by Hartley and Hogan (44) was to change the course evaluation from the course-instructor complex to the student's estimate of self-development as a result of the course. Or, they state, "...the focus was changed from process of education to student estimates of outcomes" (p. 248). The present study proposes to take this one step further by including a measure of how the student actually does perform after completing their high school courses, and relating this achievement to their perceptions of the high school preparation for college social science disciplines.

An investigation of course evaluation by Cronen and Price (45) suggests an area of study might involve freshman judgments as it is related to the trends in secondary school education. However, it seems questionable that students at this level would be aware of educational trends. Cronen and Price state that the specific purpose for their study was to identify the dimensions of judgment students use to evaluate courses of instruction at four stages in the process of undergraduate education. They conclude that different levels of students used different criteria in making judgmental decisions.

Prediction of academic performance by students has been found to be significantly accurate. Keefer (46) found that self-estimates were better predictors of college achievement that either ACT scores or high school grades. While this does not agree with several other studies summarized by Pazandak (47) that conclude the high school grade is the best predictor of college performance, Keefer's study does signify that student perception of their preparedness is significant. The Pazandak study (47) was designed to measure the correlation

of achievement with the self estimate of student level of effort. The results of this study indicate correlations of .53 to .66 between achievement in high school and college with the students' estimate of how hard they believed they have worked in the past. While the usual student opinion is not restricted to the level of effort required in past school experiences, the effort required would seem to be one factor of influence. Dear (48), in a somewhat similar type study of students, at a Northern Illinois University in 1974 found significant correlations between college grade point average and student perception of the positive importance of high school preparation. This study also included two other important factors, reading and writing abilities.

In his paper, "Transcendence and the Curriculum," Philip Phenix (49) describes one dimension of transcendence as the extension of the curriculum in both a time frame and in its inclusiveness. To attain an educational process that transcends, Phenix suggests "real" dialogue is necessary in an open-ended manner to allow teachers to enter the minds of students, and thus be more aware of their expectations and in turn develop a sympathetic relationship. This process will allow the growth of the education to continue and results in a more meaningful advance, hence, transcendence.

While a formal method of inquiry may not seem to live up to the humanistic vision of a Philip Phenix inspired relationship between the student-teacher, the formal process does have the potential for gaining insight into the aggregated needs, goals, and evaluations of students in view of past educational experiences.

Summary

The Delphi technique has been used in the past to determine educational curriculum needs as perceived by faculty and administrators. High school and college students see the social science discipline as important to their careers and personal life goals, yet students have been neglected in the determination of their needs and preferences. The goals of the social sciences are broadly described for national planning, but become less meaningful for each institution, where the specific student population needs must be considered. Student input is generally viewed as a desired way of determining the precise local needs and interests, yet is usually neglected.

The direction in which the social science disciplines should be pointed is not clear nor agreed upon by current authorities, and the inclusion of student perception is often mentioned as desirable for future curriculum planning. Students as course evaluators for future revision are recommended by some researchers.

A student input process does appear to appeal to educators, possibly because it might create interest among students and because it can be an educational process of value in itself.

CHAPTER III

METHODS AND PROCEDURES OF STUDY

Population

The sophomore class at Panhandle State University in the 1976-1977
year who had been enrolled as freshmen at Panhandle State University in
the 1975-1976 year were selected as the population. International stu-
dents were excluded as they would not have had high school preparation
in the Panhandle area. The availability of students with recent exper-
iences as freshmen at Panhandle State University was a prime considera-
tion in selecting the population. The names of the 272 students who
were classified as freshmen in the 1975-1976 year were obtained from
the Dean of Instruction at Panhandle State University. The names were
checked against the student's enrollment in the spring 1977 semester.
The names of these 137 sophomores became the population per se.

Seventy names were drawn randomly from the 137 remaining students.
A random number table was used to minimize the possible bias with regard
to the sample subjects selected. The sample size used was to be 50 per-
cent of the remaining sophomores, or 25 percent of the original freshman
class. The sample size was reduced to 68 as one subject withdrew from
college after the sample names were drawn and another student was found
to be an international student and not representative of the population.

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Procedure of the Study

With the assistance of various members of the social science
faculty at Panhandle State University, broad statements were formulated
which were believed would elicit responses from the sample subjects in
regard to their perceptions of their preparation in high school for the
freshman social science courses at Panhandle State University. In addi-
tion the subjects were asked to recommend new areas to be covered in the
freshman social science courses to improve the social science curricu-
lum. Thus, the Delphi technique, originally designed for future fore-
casting, was modified to gain student consensus for curriculum planning.

Three separate instruments of the Delphi technique were used to
gather the information. The subjects were contacted through twelve
faculty members who had the subjects in classes in the 1977 spring
semester, and the instruments were distributed through these classroom
contacts. The following detailed explanation of the instruments and
of the techniques used to administer them is necessary to understand
the value of the Delphi technique in obtaining information that is
often viewed as biased by factors such as grades, instructors, and
persuasive peer members.

Pilot Study of Open Form Questionnaire

A pilot study was used with the first correspondence letter and
the open form questionnaire. Twelve subjects were randomly selected
from the 142 students in the researcher's classes in sociology and
economics for the pilot sample subjects. The original letter and open
form questionnaire were given to these students on January 28, 1977.
One week later they were asked to make verbal comments about the clarity

of the letter and to suggest improvements of the instrument. Two

alterations were made from these suggestions. An area for additional

comments was added to the instruments, and a statement was included

in the subject's letter stating that the individual's statements would

be considered confidential. Specifically, these students were asked

if they understood the directions, the examples given, and if they

believed students would respond to this type of inquiry. Ten subjects

of the pilot sample were present and expressed opinions that the method

and instrument were acceptable, with the two previously mentioned

additions.

Delphi Technique

Correspondence Number One

The information contained in the first contact with the sample

subjects consisted of (1) a cover letter of introduction and an expla-

nation, and (2) four copies of Instrument Number One, which was used to

collect the student's responses. These were distributed through twelve

faculty members who were found to have all of the sample subjects in

their classes. These faculty members were contacted individually and

the first instrument form explained to them. They were asked to dis-

tribute the student's letter and instrument forms to the individuals

in their classes. A notation, listing the students' names, the course

numbers and the class meeting time, was given each cooperating faculty

member. In addition, a letter of explanation was given to each faculty

member to act as a guide for any student questions they might receive.

They were cautioned against helping students in the interpretation of

the instrument. The subjects were instructed to return the instrument

to the researcher at his office, which was well known, but his office number was also given verbally in each class. If a student questioned the faculty member about the student's letter or the type of information the researcher desired, the faculty members were instructed to read their letter to the student and suggest the subject see the researcher or telephone him. There were no reported difficulties by faculty in this phase of the research. A follow-up letter was distributed to those subjects who had not responded within two weeks from the distribution of the first correspondence (see Appendix A).

Included as a part of Instrument Number One was the student's name, the name of the high school where the student graduated, and the grade the student received in his freshman social science course. The information was needed for analysis of the subjects' responses by the degree of success they actually obtained in their college freshman courses. To clarify the open form statements to the subjects, an example of responses for biology, a non-social science course, was used. A social science course example was not used to avoid biasing the subjects' responses in a particular subject area.

With the responses from Instrument Number One, the information was available for the construction of Instrument Number Two in five of the six social science subject areas used on Instrument Number One. One subject area, sociology, received only one completed response, indicating this area is not often taken at the freshman level. It was omitted from future analysis.

Ten days after the follow-up letter was distributed, responses had been received by 49 (72 percent) of the 68 subjects in the sample.

Correspondence Number Two

The responses from Instrument Number One were analyzed and used as the factors on Instrument Number Two in as nearly the original form as possible. Some responses were altered slightly for reasons of clarity, but this was minimal because of the importance that the subjects recognize their earlier contribution and gain confidence that their responses were important. The factors were then arranged in alphabetical order.

The second correspondence contained (1) a cover letter explaining the procedure for each subject to follow and (2) Instrument Number Two for each course the sample subject had taken as a freshman (see Appendix B). This instrument was used for the subjects to rate their responses. The distribution was through the faculty members with the exception of six students who were contacted individually. The individual contact was necessary for these subjects because of their irregular class schedule. The letter of explanation and Instrument Number Two was distributed to the 49 subjects who had responded to Correspondence Number One, with the exception of one subject who had not taken any social science course in the freshman year. The subjects were asked to rate each factor on the appropriate Correspondence Number Two on an 11-point continuum, according to the degree of preparedness they attached to each factor. They were asked to rate the factors under New Areas to be Covered according to the degree of importance on an 11-point continuum. Finally, they were asked to rate the factor, high school preparation for college, according to the degree of preparedness they believed they had for each course area they had experience with as a college freshman on an 11-point continuum. By the end

of two weeks, responses had been received by 44 (92 percent) of the
remaining 48 sample subjects. The remaining four were contacted
individually by a student secretary and all but one were returned
within one more week. One response was eliminated because it was
too late to include, so 47 responses were used for Correspondence
Number Three.

Correspondence Number Three

The total groups responses to Correspondence Number Two were
analyzed by course category, a mean rank score was determined, and the
factors placed in rank order. These rankings were the basic informa-
tion of Correspondence Number Three.

The third correspondence contained a cover letter explaining the
directions for further subject participation and Correspondence Number
Three for each course area the sample subject had previously been
reporting in the research process. This third instrument was designed
to see if a consensus of the ranking order had been reached (see Appen-
dix C).

Correspondence Number Three was distributed through cooperating
faculty members and a student secretary. The sample subjects were
asked to examine the rankings that had been made. If the subject did
not believe any significant changes were needed, they need not return
the correspondence sheet. Of the 47 remaining subjects, 18 verbally
expressed to the researcher that no changes were necessary. Four
returned the correspondence with some suggested changes.

Subdividing the Sample

Before an analysis of the data was undertaken, the total subject responses were divided into sub-groups. Five major sub-classifications of social science courses were identified as having generated enough data for analytical purposes. These sub-classifications were: (1) economics, (2) geography, (3) history, (4) political science, and (5) psychology. The number of completed responses for each discipline was:

Economics – 15	Political Science – 28
Geography – 5	Psychology – 21
History – 31	Sociology – 0

Sociology was dropped in the study after the first round of correspondence as only one respondent had taken this course while a freshman. Thus, the response to correspondence one determined the sample size for each discipline.

The responses were arranged into three alphabetical groups. The three groupings were (1) factors students suggested as important areas which were perceived as being well prepared to understand the freshman college courses; (2) factors students suggested as important areas but were perceived as being least prepared to understand the freshman college course; and (3) factors students suggested as important but not covered in the freshman college course.

With each factor was an 11-point continuum for the subjects to rate. The continuum for well prepared factors were described as best (1) to least prepared (11). The continuums for least prepared factors were described as best prepared (1) to least prepared (11). The continuums for new areas to cover were described as most important (1) to least important (11). The number of factors suggested for each

discipline is shown in Table I. This ordering of factors formed the

information for Correspondence Number Three

TABLE I

NUMBER OF FACTORS BY PREPAREDNESS GROUPING FOR
EACH DISCIPLINE, AND NEW AREA SUGGESTIONS

Discipline	Well Prepared Areas	Least Prepared Areas	New Areas
Economics	18	16	5
Geography	15	12	4
History	23	21	23
Political Science	22	19	21
Psychology	16	20	15

Duplication of Responses

The responses gathered from Instrument Number One and listed on

Instrument Number Two had some areas of duplication. This was possible

as some subjects would list a response in the well prepared category,

while others would list the same response in the least prepared category.

These overlapping responses were allowed to remain to permit the sub-

jects to identify their own responses. It was also believed that due

to the variability in the students' high school experiences, some fac-

tors were likely to appear in both categories. The number of times an

item appeared in each of the two categories was compared to determine the extent of this conflict.

The Relationship Between High School Preparedness and the College Course Grade

A test for independence among grade groups was used to determine if the subjects ranked their perception of high school preparation for college significantly different. In collecting the raw data the sequencing of when the student recorded the information was considered important. On the first instrument, the student recorded his grade in his college freshman course in a particular discipline. He also described his perceptions of the areas of the course where he felt best prepared, least prepared, and recommended additional areas to be included in college courses. Upon receiving Correspondence Number Two four weeks later, he reviewed the areas of the discipline he had contributed, as well as other descriptive factors contributed by the other subjects. These subject-initiated components of a discipline focus his attention on the discipline area itself in terms of how well prepared he had been in each area, as he rated each factor on a scale of 1 to 11. At this point he was asked to reflect on his high school preparation for college and rate this particular subject perception. The researcher believes this sequencing would contribute to a more meaningful relationship between his rating of the factors and his rating of high school preparedness. The idea of reviewing the weak and strong preparation components of a discipline survey course was intended to lead through a more thoughtful, and hence, objective position for the subject before he considered the question of high school preparation for his college course.

A sample checking of the grades reported by students on the research instruments with the official grades revealed an error of grade reporting, ranging from 12 to 18 percent for the five disciplines. So, the grades of the subjects were obtained from official records for this phase of the analysis.

The Kruskal-Wallis one-way analysis of variance by ranks, a nonparametric statistical test, was used to test the hypotheses. Some advantages of the nonparametric statistical test are: (1) probability statements obtained from most nonparametric statistical tests are exact probabilities, regardless of the shape of the population distribution from which the randon sample was drawn and (2) nonparametric statistical tests are available to treat data which are inherently in ranks. According to Siegel (50) such data cannot be treated by parametric methods unless unrealistic and hazardous assumptions are made about the underlying distribution. The hypothesis pertaining to k independent samples were tested for significance. According to Siegel (50) the Kruskal-Wallis one-way analysis of variance may be used to test the null hypothesis, that the samples came from the same or identical population. The rationale for the test is that when all scores are ranked, disregarding the groups, from highest to lowest, then the average sum of the ranks for each group should be roughly the same if there is no difference among the groups represented. In this study the groups are determined by the college course grade.

If the samples are from the same population, or from identical populations the H (the statistic used in the Kruskal-Wallis test) is distributed as chi-square with df = k - 1. To compute the value of

this statistic the following formula is used,

$$H = \frac{12}{N(N+1)} \sum_{j=1}^{k} R_j^2 - 3(N+1)$$

where

k = number of samples

n_j = number of cases in jth sample

N = n_j, the number of cases in all samples combined

R_j = sum of ranks in jth sample (column)

$\sum_{j=1}^{k}$ = directs one to sum over the k samples (columns)

The chi-square table was used to determine the level of significance (50).

Data Grouping for Analysis

The factors of well prepared areas, least prepared areas, and new areas to cover were each divided into three sets of factors based on the mean rank assigned by the subjects. The numerical range for each set of factors is: best prepared and most important sets (1.0 to 5.54), neutral or non-directive sets (5.55 to 6.54), least prepared and least important sets (6.55 to 11.0). The difference in factor rankings was noted and an explanation of the different sets of factors explained when possible.

Summary

The population for the study was the 1976-77 sophomore class at

Panhandle State University. Twenty-five percent of the original class

was used for the sample subjects to determine the student perception

of high school preparedness for social science courses in college. The

Delphi technique was used to gain the subject's perceptions free from

peer or faculty influence. The Delphi technique employs a series of

correspondence with the subjects, resulting in a set of responses that

are summarized and returned to the subjects through a series of three

or more rounds of correspondence, until a consensus is reached. Forty-

seven of the subject responses were completed and used in the study.

The subjects responded in significant numbers in the disciplines

of economics, geography, history, political science, and psychology.

Sociology was omitted at this point due to the lack of responses for

this discipline.

Subjects ranked their perception of their high school preparedness

for college. These rankings were tested for a significant relationship

with the grade the subject received in college.

CHAPTER IV

ANALYSIS AND PRESENTATION OF THE DATA

Introduction

The purpose of this study was to provide information to strengthen
the social science curriculum at Panhandle State University. Specific-
ally, student input was solicited using the Delphi technique, to deter-
mine how students perceive their preparation for the freshman social
science courses at Panhandle State University. This study should pro-
vide a first step in creating awareness of the perceived needs of stu-
dents by both secondary and college faculty. Such awareness should
assist in curriculum planning by specifying the weaknesses in the
courses content.

The relationship between students' perceived high school prepara-
tion and their performance in social science college courses was deter-
mined for the sample subjects through the Kruskal-Wallis one-way
analysis of variance.

Overall Factor Rating

The subjects listed the factors under two general categories,
well prepared and least prepared areas. Then next, rated these
factors on the scale of 1 to 11. The researcher classified the
factors for each discipline into three general categories of factors
where students believed they were best prepared, non-directional,

and least prepared. Factors receiving a mean rank of 1.0 to 5.54 were

generalized as being best prepared, while factors receiving a mean rank

of 6.55 to 11.0 were generalized as areas described as least prepared.

Factors with a mean rank of 5.55 to 6.54 were considered as non-

directional or neutral in regard to student perception of college fresh-

man courses in a given discipline. Table II lists the number of factors

classified within these three categories for each of the disciplines

covered in the study.

TABLE II

THE NUMBER OF FACTORS BY DISCIPLINE DESIGNATED
AS WELL PREPARED, NEUTRAL,
AND LEAST PREPARED

Areas	Mean Ranking Range for the Three Ranking Categories		
	1.0–5.54	5.55–6.54	6.55–11.0
Economics			
Well Prepared	5	5	8
Least Prepared	7	1	8
Geography			
Well Prepared	15	0	0
Least Prepared	10	2	0
History			
Well Prepared	17	4	2
Least Prepared	12	7	2
Political Science			
Well Prepared	18	3	1
Least Prepared	10	4	5
Psychology			
Well Prepared	10	5	1
Least Prepared	3	10	7

Economics

Economics was the social science discipline ranked by the students as the discipline they were least prepared in high school for their freshman college course. Fifteen of the forty-nine responding subjects had taken economics as a freshman, slightly more than thirty percent of the responding subjects. The overall ranking of the social science disciplines in high school preparedness shows economics with a mean rank of 7.333 on the 11-point scale indicating they do not believe they were well prepared.

Factors Students Classified as Well Prepared in Economics

The subjects suggested 18 areas of economics in which they thought they were well prepared. These factors were rated from 4.333 to 8.133 on an 11-point continuum ranging from best prepared (1) to least prepared (11). Five of these factors were rated within the range of 1.0 to 5.54. These five factors are shown in Table III. These factors are the most elemental of economic concepts.

Five factors were ranked within the range 5.55 to 6.54, and designated as being neutral or non-directive indicators of the degree of preparedness. These factors are shown in Table IV and reflect a continuation of basic economic concepts.

Eight of the eighteen factors received a mean rank of 6.5 or greater, indicating a significant number of subjects responding in economics ranked these as least prepared on the 11-point continuum. While no central themes are discernible within this group of factors,

they are basic concepts that are helpful to the comprehensive under-

standing of economic systems. These factors are shown in Table V.

TABLE III

WELL PREPARED AREAS SUGGESTED BY STUDENTS
RANKED WITHIN THE RANGE 1.0-5.54

Rank No.	Factor	Group Average
1.	Supply and Demand	4.333
2.	Monopoly	5.000
3.	Personal Finance	5.143
4.	Business Operations	5.400
5.	Price System	5.533

TABLE IV

WELL PREPARED AREAS SUGGESTED BY STUDENTS
RANKED WITHIN THE NEUTRAL OR
NON-DIRECTIVE RANGE
OF 5.55-6.54

Rank No.	Factor	Group Average
6.5	Monetary Systems	5.667
6.5	Taxation	5.667
8.	Depression and Recession	6.133
9.	Resource Use	6.214
10.	Labor Unions	6.467

TABLE V

WELL PREPARED AREAS SUGGESTED BY STUDENTS
RANKED WITHIN THE RANGE 6.55-11.0

Rank No.	Factor	Group Average
11.	Capital	6.846
12.	Utility	6.929
13.	Collective Bargaining	7.133
14.5	Diminishing Returns	7.400
14.5	Economic System	7.400
16.	Mercantilism	7.769
17.	Graphics	7.786
18.	Economic History	8.133

Factors Students Classified as Least

Prepared in Economics

Seven factors suggested in the least prepared areas of economics
were ranked within the limits of the 1.0 to 5.54 as shown in Table VI.
While these seven factors were suggested by some subjects as areas of
least preparedness, the mean rank of the responding subjects would
indicate that, when taken as a group, these students believed them-
selves well prepared. The different high school background of stu-
dents would result in students diverse views.

Only one factor, charts, was listed under least prepared area of
economics and ranked in the neutral range of 5.55 to 6.54. This is
considered to be non-directive.

Eight factors were ranked above 6.55 under the least prepared
classification within the discipline of economics. These eight areas

are those students suggested in which they felt most inadequately prepared, but were important in their college freshman experience in economics. They are shown in Table VII, and can be generalized as concepts that are complex in the introduction of either micro-economics or in macro-economics in high school.

TABLE VI

LEAST PREPARED AREAS SUGGESTED BY STUDENTS
RANKED WITHIN THE RANGE 1.0-5.54

Rank No.	Factor	Group Average
1.	Money	4.467
2.	Interest	5.133
3.	Consequences of Inflation	5.400
5.5	Changes in Supply and Demand	5.467
5.5	Costs of Production	5.467
5.5	Use of Economics in Day to Day Living	5.467
7.	Depressions	5.533

A Comparison of Factors Listed as Both Well

Prepared and Least Prepared Areas

of Economics

Six factors were listed within both classifications of well prepared and least prepared in the economics discipline. These factors and their numerical rank are shown in Table VIII. The factor descriptions are identical in two cases and similar in the remaining four. The mean rank difference for any one pair of factors was less than

1.5 points, thus indicating the consistency of the ranking assignment

by the subjects.

TABLE VII

LEAST PREPARED AREAS SUGGESTED BY STUDENTS
RANKED WITHIN THE RANGE 6.55-11.0

Rank No.	Factor	Group Average
9.	Government Spending	6.600
10.5	Business Cycles	6.667
10.5	Taxation	6.667
12.	Schedules	6.923
13.5	Elasticity	7.067
13.5	Graphs	7.067
15.	Economic History	8.214
16.	Underdeveloped Countries	8.500

Preparedness in High School for

College Economics

The mean ranking of high school preparedness for college economics

was 7.333, falling within the range of not well prepared as perceived

by students. The Kruskal-Wallis one-way analysis of variance by rank

was used to determine if the subjects ranked their preparedness signifi-

cantly different from others, based upon the college grade they received.

Students receiving an A in economics were thus compared with the B, C,

D, and F performing students. The students ranked their own prepared-

ness on a scale of 1 to 11 as shown in Table IX. These were reranked

into a total ranking order from 1 to 15 as directed by the Kruskal-

Wallis statistic and appear in Table X.

TABLE VIII

A COMPARISON OF FACTORS LISTED IN BOTH THE WELL
PREPARED AND LEAST PREPARED AREAS IN
THE DISCIPLINE OF ECONOMICS

Factor	Well Prepared	Least Prepared
Supply and Demand	4.333	
Changes in Supply and Demand		4.467
Monetary System	5.667	
Money		4.467
Taxation	5.667	6.667
Depression and Recession	6.133	
Depression		5.553
Graphics	7.786	
Graphs		7.967
Economic History	8.133	8.214

The observed value of H is 3.935, while the value of H at the .05

level of significance with 4 df is 9.49, indicating the ranking of high

school preparedness for college is not significantly different for the

various grade achievement groups.

TABLE IX

STUDENT NUMERICAL RANK OF HIGH SCHOOL
PREPAREDNESS FOR COLLEGE BY COLLEGE
GRADE GROUP IN ECONOMICS

	Grade Achievement in College Economics				
	A	B	C	D	E
	2	9	5	8	8
Numerical	11	5	5	11	
Rankings	10	9			
Value	9	5			
	7	6			

$n_1 = 5 \qquad n_2 = 5 \qquad n_3 = 2 \qquad n_4 = 2 \qquad n_5 = 1$

$N = 15$

TABLE X

RERANKING OF NUMERICAL SCORES IN A
SINGLE SERIES FOR ECONOMICS

	Reranking by Grade Achievement in College Economics				
	A	B	C	D	F
	1.0	11.0	3.5	8.5	8.5
Numerical	14.5	3.5	3.5	14.5	
Series	13.0	11.0			
Rank	11.0	3.5			
	7.0	6.0			

$R_1 = 46.5 \qquad R_2 = 35.0 \qquad R_3 = 7.0 \qquad R_4 = 23 \qquad R_5 = 8.5$

Observed $H = 3.935*$ (df = R − 1 = 4)

*P > .05

New Factors Recommended for Inclusion

in College Economics

Five factor areas were suggested as important for inclusion in

the freshman economics course. All received a ranking of most impor-

tant, falling within the 1.0 to 5.54 range. These factors and their

mean ranking are shown in Table XI.

TABLE XI

NEW AREAS SUGGESTED AS IMPORTANT BUT NOT
COVERED IN THE FRESHMAN COLLEGE
ECONOMIC COURSE, AND THE
MEAN RANK OF SUBJECTS

Rank No.	Factor	Group Average
1.	Using Economics in Daily Living	1.867
2.	Wages	2.800
3.	Labor Unions	4.200
4.	Salesmanship	4.267
5.	Economics of Other Nations	5.000

Geography

The number of subject responses in the discipline of geography was

small, with only five of the forty-nine indicating they took geography

as a freshman in college. The overall ranking of the social science

discipline in high school preparedness shows geography with a mean rank

of 4.20, the lowest numerical ranking of the five disciplines, indicating

students believed they were better prepared in geography than any other social science discipline.

Factors Students Classified as Well
Prepared in Geography

All fifteen factors that students suggested as areas of well preparedness were ranked from 2.4 to 5.4, falling within the limits of the best prepared category. No factor suggested as well prepared was thus classified as being neutral or non-directive, nor were any factors designated as being least prepared in high school for college freshman geography. A review of the factors in which students believed they were well prepared indicates these are basic geography concepts that are generally introduced early in their education, either before or during the junior high level. Table XII lists the well prepared factors, all of which students believed were best prepared in high school for college.

Factors Students Classified as Least
Prepared in Geography

Ten factors suggested in the least prepared areas of geography were ranked within the limits of 1.0 to 5.54, as shown in Table XIII. These ten factors were suggested by some subjects as areas of least preparedness, however, the mean rank of the responding students would indicate that, as a group, they believed themselves well prepared. The different high school backgrounds of the subjects would result in diverse views.

Only two factors were ranked in the neutral range. These were: Life Styles in Different Geographic Regions (5.600) and World Geology (6.000). No additional factors were suggested.

TABLE XII

WELL PREPARED AREAS SUGGESTED BY STUDENTS
RANKED WITHIN THE RANGE 1.0-5.54

Rank No.	Factor	Group Average
1.	Oceans	2.400
2.	Nations	2.600
3.	Capitols	2.800
4.	U. S. Geography	3.000
5.5	Gravity	3.400
5.5	Mountain Ranges	3.400
7.5	Rivers	3.600
7.5	World Geography	3.600
9.	Planets	3.800
10.	Sun	4.000
11.	Map Reading	4.200
12.	Glaciers	4.400
13.	Lakes	4.600
14.	Land Formations	4.800
15.	Plateaus	5.400

TABLE XIII

LEAST PREPARED AREAS SUGGESTED BY STUDENTS
RANKED WITHIN THE RANGE 1.0-5.54

Rank No.	Factor	Group Average
1.	Countries	2.800
2.	Rivers	3.200
3.	Mountains	3.600
4.	Nations and Capitols	4.200
6.	Climatic Areas of the World	4.400
6.	National Geology	4.400
6.	Soils	4.400
8.	Earth Quakes	4.800
9.	Types of People	5.200
10.	Minerals	5.400

A Comparison of Factors Listed as Both Well

Prepared and Least Prepared Areas

of Geography

Four factors were listed in both the well prepared and least pre-
pared sets, indicating that different types of high school preparation
do occur within the region. These four factors are nations, capitols,
mountain ranges, and rivers. While the factors are considered areas of
well preparedness and also least preparedness, the group numerical
mean rank appears to be similar as shown in Table XIV.

TABLE XIV

A COMPARISON OF FACTORS LISTED IN BOTH THE
WELL PREPARED AND LEAST PREPARED AREAS
IN THE DISCIPLINE OF GEOGRAPHY

Factors	Well Prepared	Least Prepared
Nations	2.600	
Capitols	2.800	
Nations and Capitols		4.200
Mountain Ranges	3.400	
Mountains		3.200
Rivers	3.600	3.200

The factors were not identical in every case. The pairs being
described separately as nations and capitols under well prepared areas

and then described as one factor of nations and capitols under least prepared factors. Mountains were also described differently, but again the descriptions appear to be similar.

Preparedness in High School for College Geography

The mean ranking of high school preparedness for college geography was 4.200. This falls in the range of being well prepared, as perceived by students. The Kruskal-Wallis one-way analysis of variance by ranks was used to determine if the grade groupings of students was significant at the .05 level and discern if the subjects represent different populations as defined by their course grade. Table XV contains the ranking by each student of preparedness in high school for his freshman course in geography. The students ranked their own preparedness on a scale of 1 to 11. These were reranked into a total order from 1 to 5 for the small sample as directed by the Kruskal-Wallis statistic and are in Table XVI. Due to the small size and the distribution the probability cannot be tested at the .05 level, however, the ranking of preparedness is significant at the .30 level.

New Factors Recommended for Inclusion in
College Geograhy

Only four new areas were recommended for inclusion in the freshman college geography course. These areas are shown in Table XVII with the average rank indicated for each.

TABLE XV

STUDENT NUMERICAL RANK OF HIGH SCHOOL
PREPAREDNESS FOR COLLEGE BY
GRADE GROUPS IN GEOGRAPHY

	Grade				
	A	B	C	D	F
Student Rank on a Scale 1 to 11	5	4	3 5 4	–	–

TABLE XVI

RERANKING OF NUMERICAL SCORES IN A
SINGLE SERIES FOR GEOGRAPHY

A	B	C	D	F
4.5	2.5	1.0 4.5 2.5	–	–

$R_1 = 4.5$ $R_2 = 2.5$ $R_3 = 8.0$

Observed H = 35.83*   1-1-3 small sample distribution*

*Due to the small sample size, the probability of .05 cannot be tested, however, it is significant at the .30 level.

TABLE XVII

NEW AREAS SUGGESTED AS IMPORTANT BUT NOT
COVERED IN THE FRESHMAN COLLEGE
GEOGRAPHY COURSE, AND THE
MEAN RANK OF SUBJECTS

Rank No.	Factor	Group Average
1.	Compare U. S. Geography to Other Areas of the World	2.6
2.	Tornadoes	3.0
3.	Earth Quakes	3.2
4.	Solar System	4.6

Two of the recommended areas, solar system and earth quakes, also appear in the factors listed as least prepared areas. Because each of the four factors are ranked numerically in the 1.0 to 5.4 range on the 11-point continuum, they are classified as most important by students.

History

The number of subject responses in history was the largest of the six disciplines considered in the study with thirty-one of the forty-nine participating subjects responding in this discipline. The over-all ranking of this social science discipline in high school prepared-ness for college shows history in the middle position with a mean rank of 4.774. In relation to the other disciplines, history was ranked by the subjects as better prepared than economics or psychology and less well prepared than geography or political science, while sociology was dropped from the study for lack of responses.

Factors Students Classified as Well

Prepared in History

Twenty-three factors were suggested by the subjects as areas of well preparedness in history. The mean rank of these factors ranged from 3.5 to 6.938 on the 11-point continuum with 1 (as best prepared) to 11 (least prepared). Seventeen of the twenty-three factors fall within the limits defined as best prepared, being ranked 5.54 or less. The seventeen factors are basic concepts often introduced in the elementary education program and re-explored several times as the student goes through high school. The central theme is the historic development of our society interrelating wars, government, and major social issues. The seventeen factors and their ranking are given in Table XVIII. Four factors were ranked in the neutral or non-directive range. These four were England, effects of the atom bomb, religion, and labor organization. Only two factors, suggested by the subjects, were ranked above the 6.5 point on the scale. This was interpreted to mean that they felt least prepared in these two areas relative to the other factor rankings. These two areas were medieval history and European history, both areas of history that are likely to not be covered in basic courses.

Factors Students Classified as Least

Prepared in History

Twenty-one factors were suggested as areas of history in which students believed they were least prepared in high school for freshman college history. The group average rankings ranged from 3.781 to 6.875, indicating some students believed they were well prepared in

some of these areas that other subjects described as least prepared

areas. Twelve of these twenty-one factors were ranked from 1.0 to

5.54, while seven are factors classified as neutral and two factors

are ranked above 6.55. These factors are shown in Table XIX and are

indications of the diverse background of the students. The description

under which the factors were solicited was areas of least preparedness.

But the ranking on the continuum from best prepared to least prepared

would indicate that twelve of the twenty-one areas were ranked in the

area of best preparedness. The factors ranked above 5.55 in Table XIX

would seem to be the important areas of history in which students

believed they had the least preparation for their college course.

TABLE XVIII

WELL PREPARED AREAS SUGGESTED BY STUDENTS
RANKED WITHIN THE RANGE 1.0-5.54

Rank No.	Factor	Group Average
1.	Explorers (early)	3.500
2.	Colonization of America	3.562
3.	Declaration of Independence (fight)	3.781
4.	Civil War	4.000
5.	Revolutionary War	4.031
6.	Slavery	4.281
7.	Historical Men	4.375
8.	Presidents (and History)	4.438
9.	Western Movement	4.516
10.	Branches of Government and Politics	4.562
11.	World War I and II	4.688
12.	Treaties	5.094
13.5	History of Early 1900's	5.188
13.5	War of 1812	5.188
15.	Depression	5.281
16.	French and Indian War	5.312
17.	Sequential Events - Pre-20th Century	5.516

TABLE XIX

LEAST PREPARED AREAS SUGGESTED BY STUDENTS

Rank No.	Factor	Group Average
	Factors in 1.0 to 5.54 Range	
1.	Discovery of America and Colonization	3.781
2.	Civil War	4.094
3.	Western Expansion	4.516
4.	World War I and II - Events	4.781
5.	Colonial Politics and Constitution	4.844
6.5	Industrial Revolution	4.906
6.5	War of 1812 and Other Wars	4.906
8.	Reconstruction	4.969
9.	Treaties and Territories	5.094
10.	Early History and Events	5.281
11.	Recent History	5.312
12.	American Indian Wars	5.344
	Factors in 5.55 to 6.54 Range	
13.	Post War Problems	5.553
14.	Depressions	5.562
15.	Government Conflicts and Structure	5.656
16.	Dates - Important	5.688
17.	Great Men - Important and Radicals	5.781
18.5	Labor Unions - Early History	6.406
18.5	Religion	6.406
	Factors in 6.55 to 11.0 Range	
20.	Foreign Policy and International Trade	6.613
21.	European History	6.875

A Comparison of Factors Listed as Both Well

Prepared and Least Prepared Areas

of History

The subjects described twenty-three factors as well prepared and
twenty-one factors as least prepared in history. Within these two
sets, twelve factors were found in both, indicating a greater than
fifty percent overlapping. Within these overlapped factor areas,
the numerical ranking is similar for the paired factors. Three of
the factors are in identical form, while nine have slightly different
descriptive expressions but are similar enough to be considered as
the same concept. The researcher recognizes the personal bias possi-
ble, but the grouping of the factors in areas of similarity is valu-
able and necessary if curriculum planning is to be pursued through
the student directed Delphi process. The twelve overlapping factors
are given in Table XX with the average ranking received in both the
well prepared and least prepared groupings. Indentions are used to
indicate the pairing of the factors when the descriptions were not
identical. The range of the pair ranking was from 1.406 for the
historical men - great men factor, to an identical ranking of 5.094
for treaties, and a second identical ranking of western expansion -
movement of 4.516.

Preparedness in High School for College History

The mean ranking of high school preparedness for college history
was 4.774. This is in the well prepared range on the 1 to 11 scale used
to indicate preparedness. The Kruskal-Wallis one-way analysis of vari-
ance by rank was used to determine if the grade groupings of students

TABLE XX

A COMPARISON OF FACTORS LISTED IN BOTH THE
WELL PREPARED AND LEAST PREPARED AREAS
IN THE DISCIPLINE OF HISTORY

Factor	Well Prepared	Least Prepared
Colonization of America	3.562	
Discovery of America and Colonization		3.781
Civil War	4.000	4.094
Historical Men	4.375	
Great Men – Important and Radicals		5.781
Western Movement	4.516	
Western Expansion		4.516
World War I and II	4.688	
World War I and II – Events		4.781
Treaties	5.094	
Treaties and Territories		5.094
War of 1812	5.188	
War of 1812 and Other Wars		4.969
Depressions	5.281	5.562
French and Indian War	5.312	
American Indian Wars		5.344
Religion	6.281	6.406
Labor Organizations	6.344	
Labor Unions – Early History		6.406
European History (early)	6.938	
European History		6.875

was significant at the .05 level, and therefore ascertain if the subjects represent different populations, as defined by their course grade. Table XXI contains the ranking made by each student of his preparedness in high school for his college course in history by his college grade achievement. The students ranked their own preparedness in high school for a specific college course on a scale of 1 to 11.

The student rankings were reranked into a total ranking order of 1 to 31 as directed by the Kruskal-Wallis statistic and appear in Table XXII. The observed value of H is 4.991 while the value of H at the .05 level of significance with 4 df is 9.49, indicating the ranking of high school preparedness for college is not significantly different for the various grade achievement groups.

New Factors Recommended for Inclusion
in College History

Student response to the opportunity to suggest new areas that need to be covered in freshman history was significant in terms of volume, with twenty-three suggestions. Nine of these appear to be similar to those factors named in areas of least preparedness. They are shown in Table XXIII along with their mean ranking of importance. The remaining fourteen areas are more specific in nature and can be generally described as recent historic events, or as a continuation of the past. These appear in Table XXIV with their mean ranking of importance.

TABLE XXI

STUDENT NUMERICAL RANK OF HIGH SCHOOL
PREPAREDNESS FOR COLLEGE BY COLLEGE
GRADE GROUPS IN HISTORY

| | Grade Achievement in College History | | | | |
	A	B	C	D	F
	1	2	3	2	4
	2	5	3	6	5
		4	8	4	
Numerical		10	5	3	
Ranking		9	4	4	
Value		4	1	8	
		3	11	7	
		8	6		
		5	3		
		4	4		

$n_1 = 2$ $n_2 = 10$ $n_3 = 10$ $n_4 = 7$ $n_5 = 2$

$N = 31$

TABLE XXII

RERANKING OF NUMERICAL SCORES IN
A SINGLE SERIES FOR HISTORY

	Reranking by Grade Achievement in College History				
	A	B	C	D	F
	1.5	4.0	8.0	4.0	14.5
	4.0	20.5	8.0	23.5	20.5
		14.5	27.0	14.5	
Numerical		30.0	20.5	8.0	
Series		29.0	14.5	14.5	
Rank		14.5	1.5	27.0	
		8.0	31.0	25.0	
		27.0	23.5		
		20.5	8.0		
		14.5	14.5		

$R_1 = 5.5$ $R_2 = 182.5$ $R_3 = 156.5$ $R_4 = 116.5$ $R_5 = 35$

Observed $H = 4.991*$ (df = R − 1 = 4)

*$\underline{P} > .05$

TABLE XXIII

NEW AREAS SUGGESTED AS IMPORTANT BUT NOT COVERED IN
FRESHMAN COLLEGE HISTORY THAT APPEAR AS
DUPLICATIONS OF FACTORS LISTED UNDER
LEAST PREPARED AREAS OF HISTORY
AND THEIR MEAN RANK

Factor	Group Average
Presidents – Terms and Accomplishments	3.935
Civil War	4.156
Bill of Rights – Constitution	4.188
Men – Famous	4.281
Religion	4.812
Western Expansion	4.844
Treaties	4.969
Depressions	5.094
Medieval History	6.875

TABLE XXIV

NEW AREAS SUGGESTED AS IMPORTANT BUT NOT COVERED IN
THE FRESHMAN COLLEGE HISTORY COURSE, AND
THE MEAN RANK OF SUBJECTS

Factor	Group Average
Current Events	3.344
Wars – Korean, World War I, Viet Nam, Napoleonic, Indian Wars	3.548
Present Problems – History	3.581
Wartime Policy vs Peacetime Policy	4.094
Modern Technology	4.097
Government Structure	4.125
State's History	4.250
Events – Watergate, Cattle Drives	4.750
Industries and Industrial Revolution	5.000
Government Ownership – Natural Resources	5.156
Black History	5.688
Migration	5.906
Hitler's Reign	6.594
Foreign History	6.903

Political Science

The number of subject responses in the discipline of political science was second only to history, with twenty-eight of the forty-nine respondents indicating they had taken their introduction to political science as a college freshman. The mean rank of political science preparation in high school for college was 4.357. This ranking places political science as number two in the social science disciplines in overall preparedness for college.

Factors Students Classified as Well
Prepared in Political Science

In total twenty-two areas were reported by students as those in which they believed they were well prepared. Of these twenty-two factors eighteen were ranked on an 11-point continuum, ranging from 1 (best prepared) to 11 (least prepared), from 3.345 to 5.483. These are shown in Table XXV. While no specific generalization can be used that includes all of the factors, the interrelationship between individual rights, the judicial system, and political representation can be viewed as a set of interwoven concepts that loosely tie the majority of these factors together.

Three of the twenty-two factors were ranked in the middle range, described as the neutral or non-directional range of 5.55 to 6.54, while only one area, court cases, ranked as an area students believed was least prepared. The neutral factors do not lend themselves to a generalized description, but might be described as general categories often introduced in an introductory government class. Table XXVI lists these factors by their student belief in preparedness ranking groups.

TABLE XXV

WELL PREPARED AREAS SUGGESTED BY STUDENTS
RANKED WITHIN THE RANGE 1.0–5.54

Rank No.	Factor	Group Average
1.	Political Parties	3.345
2.	Presidents	3.769
3.	Congress (Senate, House of Representatives)	3.966
4.	Constitution	4.000
5.	Basic Study of Government	4.069
6.	Voting Process	4.071
7.5	Amendments	4.310
7.5	Powers of Government	4.310
9.	Functions of Executive, Legislative, and Judicial Branches of Government	4.536
10.	State, Local, and National Governments	4.586
11.	Civil Rights	4.931
12.	Civics	5.034
13.	Offices of Political Men	5.036
14.	Great Men in Politics	5.069
15.	Laws	5.207
16.	History of Government	5.267
17.	Supreme Court	5.393
18.	Electoral College & Elections	5.483

TABLE XXVI

WELL PREPARED AREAS SUGGESTED BY STUDENTS
RANKED WITHIN THE NEUTRAL OR
NON-DIRECTIVE RANGE
OF 5.55–6.54

Rank No.	Factor	Group Average
19.	Procedures (Political)	5.621
20.	American Federalism	5.966
21.	Counties	6.138

Factors Classified as Least Prepared

in Political Science

Nineteen factors were listed by the subjects as areas of political science where they were least prepared for college freshman political science. The average ranking ranged from 4.069 to a high of 7.679, indicating some students believed they were well prepared in some of the areas that other students described as least prepared areas. Ten of the nineteen factors were ranked within the 1.0 to 5.54 range on the preparedness scale of 1 to 11. These areas are shown in Table XXVII.

TABLE XXVII

LEAST PREPARED AREAS SUGGESTED BY STUDENTS
RANKED WITHIN THE RANGE 1.0-5.54

Rank No.	Factor	Group Average
1.	Bill of Rights	4.069
2.	Constitutional Amendments	4.207
3.5	Presidential Rights	4.517
3.5	State and Local Government Relations	4.517
5.	Evolution of Political Parties	4.690
6.	Government and Presidential Power	4.750
7.	Political System	5.172
8.	Court System	5.321
9.	Electoral College and Elections	5.345
10.	Civil Rights	5.393

It is interesting to note the separation of bill of rights and civil rights into separate concepts. This might indicate the bill of rights is viewed as principles of democracy while civil rights could be thought of as the current application of these principles in different settings. The spread of the ranking between these two concepts is 1.324, suggesting the subjects preparedness is somewhat less for civil rights.

These ten factors are indicative of the diverse backgrounds of the student body, as the factors were in response to the request for areas of the discipline where the student felt least prepared.

The other nine factors suggested by students as areas of least preparedness were ranked numerically as neutral or non-directional or as areas of least preparedness. These factors appear to be specific in nature and might be considered as areas of political science requiring more intensive, in-depth study to acquire a feeling of competency. These nine factors are divided into two rankings, neutral or non-directional ranking where the mean rank was 5.55 to 6.54, and areas of least preparedness when the mean rank was 6.55 or greater. These factors and their mean ranks appear in Table XXVIII. Additions to the current curriculum are expected to consider these areas seriously, as these factors are important to students, while also believed by the student to be the areas of least preparedness in political science.

A Comparison of Factors Listed as Both Well

Prepared and Least Prepared Areas of

Political Science

Eleven factors were described in both the areas, well prepared and least prepared. These eleven represent fifty percent of the areas

students listed as well prepared and fifty-eight percent of the areas

students listed as least prepared areas of political science. The

duplication of factors in both categories on such a large scale

indicates a wide, divergent background among the sample subjects.

These eleven areas are given in Table XXIX along with the mean rankings

in both categories.

TABLE XXVIII

LEAST PREPARED AREAS SUGGESTED BY STUDENTS

Rank No.	Factor	Group Average
	Factors in 5.55 to 6.54 Range	
11.	Origin and Passing of Laws	5.714
12.	History of Government	5.896
13.	Political Conventions	6.034
14.	Officials and Offices	6.036
	Factors in 6.55 to 11.0 Range	
15.	National Supremacy	6.556
16.	Theories of Government	6.607
17.	Court Cases	7.034
18.	Foreign Politics	7.536
19.	Bureaucracy	7.679

In five of the areas the description is identical, while the remain-

ing six areas are described differently to some degree. Both descrip-

tions are shown in Table XXIX. Consultation among the department

faculty at Panhandle State University was used to determine if the

factors were very similar, even though they are not identical. While
these factors appeared in separate lists for students to rank during
the research process, the numerical rankings for these duplicated factors
are close together, with a spread in the ranking for the pairs of factors
ranging from .069 to 1.35, showing a high degree of consistency.

TABLE XXIX

A COMPARISON OF FACTORS LISTED IN BOTH
THE WELL PREPARED AND LEAST PREPARED
AREAS IN THE DISCIPLINE OF
POLITICAL SCIENCE

Factors	Well Prepared	Least Prepared
Political Parties	3.345	
Evolution of Political Parties		4.690
Constitution Amendments	4.000	
Constitutional Amendments		4.207
Powers of Government	4.310	
Government and Presidential Powers		4.750
State, Local and National Governments	4.586	
State and Local Government Relations		4.517
Civil Rights	4.931	5.393
History of Government	5.276	5.896
Court Cases	7.286	7.034
Electoral College and Elections	5.483	5.345
Political Procedures	5.621	
Political System		5.172
American Federalism	5.966	
National Supremacy		6.556

Preparedness in High School for College

Political Science

The mean ranking of high school preparedness for college political science was 4.357, within the range of being well prepared, as perceived by the sample subjects. The Kruskal-Wallis one-way analysis of variance by rank was used to determine if the subjects ranked their preparedness significantly different from others, based upon the college grades they received. Students receiving an A in political science were then compared with the B, C, D, and F performing students. The .05 level of significance was used to determine if the grade groupings represented different populations of students, or if the high school preparedness rankings could be considered as representative of the student population as a whole, without regarding their course grade. Table XXX contains the rankings of the subjects by grade groupings. The students ranked their own preparedness on a scale of 1 (well prepared) to 11 (not well prepared). These scores were reranked into a total ranking order from one to twenty-eight as directed by the Kruskal-Wallis statistic and appear in Table XXXI. The observed value of H is 4.215, while the value of H at the .05 level of significance with 3 df is 7.82, indicating the ranking of high school preparedness for college political science is not statistically different for the various grade achievement groups.

New Factors Recommended for Inclusion

in College Political Science

Twenty-one areas were suggested by the subjects as new areas to be covered in the freshman course and appear in Table XXXII. Eighteen

TABLE XXX

STUDENT NUMERICAL RANK OF HIGH SCHOOL
PREPAREDNESS FOR COLLEGE BY COLLEGE
GRADE GROUPS IN POLITICAL SCIENCE

	Grade Achievement in College Political Science				
	A	B	C	D	F
	2	2	3	1	–
	7	5	5		
	3	4	5		
Numerical	3	4	7		
Ranking	4	6	5		
Value	7	2	9		
	4	6	4		
		3	2		
			4		
			5		
			5		
			5		

$n_1 = 7$ $n_2 = 8$ $n_3 = 12$ $n_4 = 1$ $n_5 = 0$

$N = 28$

TABLE XXXI

RERANKING OF NUMERICAL SCORES IN A SINGLE
SERIES FOR POLITICAL SCIENCE

	Reranking by Grade Achievement in Political Science				
	A	B	C	D	F
	3.5	3.5	7.5	1.0	–
	26.0	19.0	19.0		
	7.5	12.5	19.0		
Numerical	7.5	12.5	26.0		
Series	12.5	23.5	19.0		
Rank	26.0	3.5	28.0		
	12.5	23.5	12.5		
		7.5	3.5		
			12.5		
			19.0		
			19.0		
			19.0		

$R_1 = 95.5 \qquad R_2 = 105.5 \qquad R_3 = 204.0 \qquad R_4 = 1.0 \qquad R_5 = 0$

Observed $H = 4.626^*$ (df = R – 1 = 3)

$^*\underline{P} > .05$

are classified as being most important, as they are ranked 2.586 to 5.54. Three areas are non-directional in nature. Thirteen factors, appearing as suggested new areas, also appear in the two sets of factors that describe the course being taught. The cause for this seemingly incon-sistency would encourage further inquiry to determine if it is real, the causes, and the seriousness in the educational process in this basic social science discipline.

TABLE XXXII

NEW AREAS SUGGESTED AS IMPORTANT BUT NOT
COVERED IN THE FRESHMAN COLLEGE
POLITICAL SCIENCE COURSE, AND
THE MEAN RANK OF SUBJECTS

Rank No.	Factor	Group Average
1.	Constitution	2.586
2.	President	3.036
3.	Tax Structure	3.178
4.	Electoral System and Elections	3.207
5.	Courts and Their Powers (trials)	3.586
6.	Laws – Passing and New	3.621
7.	Political Actions – Recent	3.655
8.	Declaration of Independence	3.690
9.	Civil Rights – How to Uphold	3.759
10.	Government Branches	3.793
11.	Powers of Government Branches	4.379
12.	Foreign Politics and Policies	4.586
13.	Other State Laws	4.724
14.	Vice-President (duties, etc.)	4.759
15.	History of Government	4.966
16.	Government Scandals and Propaganda	5.276
17.	Cabinet Advisors	5.393
18.	Cases	5.500
19.	Party Caucuses	5.724
20.	Teach Fewer Cases	5.929
21.	Ambassadors	6.138

Psychology

The number of subject responses in the discipline of psychology was twenty-one of the forty-nine total responses for all the social science courses, indicating nearly forty percent of the college freshmen enrolled in psychology at Panhandle State University. The overall ranking of the social science disciplines in high school preparedness shows psychology with a mean rank of 6.095 on the eleven point scale indicating this discipline is one where students do not feel well prepared. Only economics was designated as a discipline of less preparedness in the social sciences.

Factors Students Classified as Well

Prepared in Psychology

Sixteen factors were suggested by students as factors in psychology in which they thought they were well prepared. These factors were ranked from 4.0 to 7.476 on an 11-point continuum ranging from 1 (best prepared) to 11 (least prepared). Ten of these factors were ranked within the range of 1.0 to 5.5.

These ten factors are shown in Table XXXIII. A general relationship within these ten factors centers around the institutions of family and marriage as indicated by these five factors: heredity, family relationships, marriage, parents or models, and child care. The remaining five factors students believed they were well prepared in are also allied to family and marriage studies. These five factors are: conditioning, human sexuality, habit formation, self esteem, and emotions. Thus all ten factors are indicative of high school emphasis in psychology focused on the family and marriage institutions.

TABLE XXXIII

WELL PREPARED AREAS SUGGESTED BY STUDENTS
RANKED WITHIN THE RANGE 1.0-5.54

Rank No.	Factor	Group Average
1.	Heredity	4.000
2.	Conditioning	4.286
3.	Family Relationship	4.429
4.	Marriage	4.700
5.	Parents as Models	4.857
6.	Child Care	5.000
7.	Human Sexuality	5.048
8.	Habit Formation	5.143
9.	Self Esteem	5.286
10.	Emotions	5.429

Five factors were ranked within the 5.55 to 6.54 range designated as being neutral or non-directive indicators of degree of preparedness as shown in Table XXXIV. These five factors are basic concepts in psychology. They were described by the subjects as: functions of the brain, human relations, personality development, experiments in behavioral psychology, and Freud's theories.

Only one factor suggested as a well prepared area was ranked above the 6.55 level. It was history of psychology and received a mean rank of 7.476 indicating this area as one in which students felt least prepared.

TABLE XXXIV

WELL PREPARED AREAS SUGGESTED BY STUDENTS
RANKED WITHIN THE NEUTRAL OR
NON-DIRECTIVE RANGE OF
5.55-6.54

Rank No.	Factor	Group Average
11.	Functions of the Brain	5.619
12.	Human Relations	5.714
13.	Personality Development	5.810
14.	Experiments in Behavioral Psychology	5.857
15.	Freud's Theories	6.429

Factors Students Classified as Least

Prepared in Psychology

Three factors suggested in the least prepared areas of psychology were ranked within the limits of 1.0 to 5.54. These three factors were: human relations--getting along with others, human developments, and child care. While these three factors were suggested by the subjects as areas of least preparedness, the mean rank for the psychology sample subjects would indicate that the students believed themselves well prepared when taken as a group. The different high school backgrounds of the students would result in students' opinion rankings with diverse views.

Ten of the twenty factors listed under least prepared areas of psychology were ranked within the neutral or non-directional designated values of 5.55 to 6.54. These factors are neither considered as best prepared nor least prepared from the mean rank of the twenty-one

subjects. The large number of factors within the neutral range of rank-

ing of least prepared factors would indicate a large number of areas

within psychology that students are familiar with but also believe they

are least prepared in a significant way. These factors do not appear to

have any interrelated concepts, but represent a wide range of areas con-

sidered within the field of psychology. Table XXXV lists these factors

by the group mean rank.

TABLE XXXV

LEAST PREPARED AREAS SUGGESTED BY STUDENTS
RANKED WITHIN THE RANGE 5.55-6.54

Rank No.	Factor	Group Average
4.	Personality Development	5.619
5.	Relating to Others	5.714
6.5	Instinct	5.952
6.5	Mental Disorders	5.952
8.	Emotions	6.000
9.	Youth	6.048
10.5	Personal Identity Development	6.143
10.5	Psychological Distress	6.143
12.	Behaviorism	6.191
13.	Mental Illness	6.333

The factors ranked above the 6.55 mean are classified as those in

which students believed they were least prepared for college psychology.

Seven of the twenty factors described as least prepared areas fall above

the 6.55 mean and are given in Table XXXVI. These seven areas of psy-

chology were believed to be important in the freshman college psychology

experience, but received the least preparation attention in high school.

These seven factors can be generalized as some factors with theories

and methods of psychology.

TABLE XXXVI

LEAST PREPARED AREAS SUGGESTED BY STUDENTS
RANKED WITHIN THE RANGE 6.55-11.0

Rank No.	Factor	Group Average
14.	Behavioral Psychology	6.714
15.	Brain Waves	6.905
16.	Educational Psychology	7.150
17.	Theories of Psychology	7.191
18.	History of Psychology	7.238
19.	Aging	7.400
20.	Imprinting	7.714

A Comparison of Factors Listed as Both Well

Prepared and Least Prepared Areas

of Psychology

Six factors were listed as both areas of well prepared and least

prepared in the discipline of psychology. These factors are given in

Table XXXVII. The factor description was the same for five of the

factors while one factor was described somewhat differently, but similar

enough to note the conflicting views of the sample subjects. The two

similar descriptions are indicated by an indention in the table. The

mean ranking for each factor when evaluated as an area of best prepared

or least prepared is also given in Table XXXVII.

TABLE XXXVII

A COMPARISON OF FACTORS LISTED IN BOTH
THE WELL PREPARED AND LEAST PREPARED
AREAS IN THE DISCIPLINE OF
PSYCHOLOGY

Factor	Well Prepared	Least Prepared
Human Relations	5.714	4.333
Child Care	5.000	5.429
Personality Development	5.810	5.619
Emotions	5.429	6.000
Personality Development Personal Identity Development	5.857	6.143
History of Psychology	7.476	7.714

The difference in the mean rank for the factors under best prepared

and least prepared were similar with less than one point difference for

any one factor, thus indicating these factors were ranked nearly the

same by the subjects even though the factors appeared under both

descriptions.

Preparedness in High School for College

Psychology

The mean ranking of high school preparedness for college psychology

was 6.095. This is in the neutral or non-directional range of being

well prepared as perceived by students. The Kruskal-Wallis one-way

analysis of variance was used to determine if the grade groupings of

students was significant at the .05 level to determine if the subjects

represented different populations, as defined by their course grade.

Table XXXVIII contains the ranking by each student of preparedness in

high school for his college course in psychology by their college grade

achievement. The students ranked their own preparedness on a scale of

1.0 to 11.0. These were reranked into a total ranking order from 1 to

21 as directed by the Kruskal-Wallis statistic and appear in Table

XXXIX. The observed value of H is 4.626, while the value of H at the

.05 level of significance with 3 df is 7.82, indicating the ranking of

high school preparedness for college is not significantly different for

the various grade achievement groups.

New Factors Recommended for Inclusion

in College Psychology

Student response to the opportunity to suggest new factor areas

that need to be covered in the freshman course was substantial. Fifteen

additional areas were suggested, and thirteen of these were ranked with-

in the 1.0 to 5.54 range indicating these are factors considered most

important. The two additional factors were ranked within the 5.5 to 6.5

range, high enough to warrant serious consideration. The thirteen

highly ranked factors can be viewed within two central themes, family

related and student centered. These two generalized classifications are
used in Table XL to assist in organization of these suggestions as they
are considered for inclusion within the curriculum.

TABLE XXXVIII

STUDENT NUMERICAL RANK OF HIGH SCHOOL
PREPAREDNESS FOR COLLEGE BY COLLEGE
GRADE GROUPS IN PSYCHOLOGY

	Grade Achievement in College Psychology				
	A	B	C	D	F
	4	7	10	6	–
	10	6	2	7	
Numerical	7	3	6	11	
Ranking		6	4	6	
Value		10	4		
		9	4		
		5	1		

$$n_1 = 3 \qquad n_2 = 7 \qquad n_3 = 7 \qquad n_4 = 4 \qquad n_5 = 0$$

$$N = 21$$

Sociology

Only one of the sixty-eight sample subjects returned correspondence
number one in sociology. Therefore, this discipline was not continued
in the remaining portion of the study. The freshman schedule is typi-
cally made up among courses that fulfill the general education require-
ments at Panhandle State University. A close review of freshman

sociology course time schedules reveals a series of conflicts with other courses that are traditionally taken at the freshman level, such as English, speech and history. These conflicts appear to be the primary reason few freshmen enroll in sociology.

TABLE XXXIX

RERANKING OF NUMERICAL SCORE
IN A SINGLE SERIES FOR
PSYCHOLOGY

	Reranking by Grade Achievement in College Psychology				
	A	B	C	D	F
	5.5	15	19	11	–
	19	11	2	15	
Numerical	15	3	11	21	
Series		11	5.5	11	
Rank		19	5.5		
		17	5.5		
		8	1		

$R_1 = 39.5$ $R_2 = 84$ $R_3 = 49.5$ $R_4 = 58$ $R_5 = 0$

Observed $H = 4.626*$ (df = R − 1 = 3)

$*\underline{P} > .05$

Summary

Forty-nine of the original sixty-eight sample subjects responded to the Delphi statements soliciting student input about preparation for

TABLE XL

NEW AREAS SUGGESTED AS IMPORTANT BUT NOT
COVERED IN THE FRESHMAN COLLEGE
PSYCHOLOGY COURSE, AND THE
MEAN RANK OF SUBJECTS

Family Related Factors	Mean Rank
Marriage and Family	3.000
Death	3.476
Human Sexuality*	3.667
Environmental Factors and Mental Health	4.619

Student Centered Factors	Mean Rank
Dealing With Stress	3.000
Depression	3.238
Human Sexuality*	3.667
Social Pressures	3.857
Personal Social Adjustment	4.000
Available Places for Counseling	4.143
Cures for Mental Illness	4.286

Other Most Important Factors	Mean Rank
Mental Disease	4.333
Behavior Patterns	4.619
Hypnosis	5.250

*Classified as important to family and student

social science disciplines offered to freshmen at Panhandle State

University. Responses were in the form of suggested factors of each

discipline where students believed themselves well prepared, least

prepared, and new areas for future inclusion in the curriculum. The

number of subjects returning complete responses in each discipline is shown in Table XLI along with the average rank for each discipline indicating how well they were prepared in high school for each specific discipline. No analysis was made for sociology as only one response was received in this discipline.

TABLE XLI

THE NUMBER OF COMPLETED RESPONSES AND
THE MEAN RANK OF HIGH SCHOOL
PREPARATION FOR THE COLLEGE
SOCIAL SCIENCE DISCIPLINE

Discipline	Number of Responses	Mean Rank by Discipline
Economics	15	7.333
Geography	5	4.200
History	31	4.774
No Social Science Courses Taken	1	−
Political Science	28	4.357
Psychology	21	6.095
Sociology	1	−

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Review of the Study

The objective of this study was to obtain information from sopho-
mores at Panhandle State University concerning their perception of
their background preparation for college freshman social science
courses. The degree of preparedness as viewed by students was elicited
after they had completed social science freshman courses, so they would
have an objective in view, as they evaluated their high school prepara-
tion. The proposed college curriculum recommendations are modest, but
hold some potential for improvement, thus benefiting future students.
Recommendations are based upon the students' impressions of prepared-
ness when taken as a group through a consensus development procedure,
the Delphi technique. The methodology of collecting student input was a
secondary purpose of this study, used primarily to determine if the
Delphi technique would have advantages, in terms of time and quality
over the traditional student input process of course evaluation. The
development of an effective, reliable and efficient student input pro-
cess is desirable because an effective curriculum is constantly evolv-
ing. Because the transitional stage from secondary school to college
is difficult in the social sciences, the results of this study can be
beneficial to area high schools and Panhandle State University as both
attempt to serve the needs of the Panhandle area.

A consensus was reached by the sample subjects in five of the six disciplines evaluated. These were economics, geography, history, political science, and psychology. Sociology was discontinued due to a lack of responses. Information for each discipline was collected in three areas, (1) areas of well preparedness, (2) areas of least preparedness, and (3) new areas to be covered in the college courses. These information areas were ranked by the subjects in relative importance, thus giving a broad view of students' perceptions for the component areas of each discipline in terms of their own pre-college preparation.

A random sample of seventy sophomore students, who had taken freshman courses at Panhandle State University, was selected to receive three correspondence instruments, necessary in the Delphi technique. The first contact was a request for student expressions, using a minimum of researcher influence with regard to the type and content of the responses. When the first correspondence instrument was returned, the student input information was used to construct Correspondence Instrument Number Two. The subject responses were arranged alphabetically for each discipline in the three groups, well prepared, least prepared and new areas to cover. A ranking continuum for each response was placed on the instrument, ranging from (1) to (11), so each factor could be evaluated by the subjects. These were then sent to the 48 subjects who had responded to correspondence one and had taken a freshman course in the specified discipline.

The Correspondence Instrument Number Two was returned by 47 subjects with a ranking designated for each area of the appropriate discipline. These were tabulated and a rank order for each of the three

groups of responses was determined in each discipline. The rank order

for the subjects was determined by the mean response of the subjects.

The rank orders were the basis for Correspondence Instrument Number

Three. This correspondence was returned to 47 respondents. The respon-

dents were asked to review the ranking order and list any change in

the ranking with which they did not agree. They were also asked to

state reasons for the changes they made. Two of the fifteen respondents

in economics, three of the thirty-one respondents in history, two of the

twenty-eight respondents in political science, and one of the twenty-one

respondents in psychology, indicated that they did not agree with the

ranking orders. Ninety-one percent of the responding subjects did not

return Correspondence Instrument Number Three, thus indicating they

approved of the ranking order. However, forty percent of these did

give verbal confirmation that they did agree with the consensus rank-

ings. With this high degree of agreement among subjects, the corres-

pondence was concluded and summarized.

Each of the five disciplines had thus generated three sets of

factors that the participating subjects believed were important.

These sets were described as areas within a discipline, and subdivided

into three groups, based on the mean rank of each factor. Thus factors

receiving a mean rank within the range of 1.0 to 5.54 were one group,

factors ranked 5.55 to 6.54 were a second group, and those factors

ranked 6.55 to 11.0 made up a third group. In this way the areas of

a discipline that subjects ranked with the strongest consensus convic-

tions were identified for the areas of well prepared, least prepared

and new recommendations.

The Kruskal-Wallis one-way analysis of variance was used to determine if the subjects ranked their overall preparedness for each discipline significantly different based upon the college grade (a measure of accomplishment), they received in their college course.

The subjects' responses to the factors through this ranking procedure were then used as the basis for the conclusions and recommendations of the study.

<div align="center">

Students as Evaluators of High School

Preparedness for Specific

College Courses

</div>

Hypothesis One: There is no significant difference in the student ranking of high school preparedness for college freshman economics among college students receiving grades of A, B, C, D, or F. This hypothesis was not rejected on the basis of this study. The probability of the high school preparedness ranking being significantly different for the grade groups was: $.30 < \underline{P} < .50$.

Hypothesis Two: There is no significant difference in the student ranking of high school preparedness for college freshman geography among college students receiving grades of A, B, C, D, or F. This hypothesis was not rejected on the basis of this study. The probability of the high school preparedness ranking being significantly different for the grade groups was: $\underline{P} > .30$.

Hypothesis Three: There is no significant difference in the student ranking of high school preparedness for college freshman history among college students receiving grades of A, B, C, D, or F. This hypothesis was not rejected on the basis of this study. The probability

of the high school preparedness ranking being significantly different

for the grade groups was: .20 $<$ $\underline{P}$ $<$.30.

Hypothesis Four: There is no significant difference in the stu-

dent ranking of high school preparedness for college freshman political

science among college students receiving grades of A, B, C, D, or F.

This hypothesis was not rejected on the basis of this study. The pro-

bability of the high school preparedness ranking being significantly

different for the grade groups was: .20$<$ $\underline{P}$ $<$.30.

Hypothesis Five: There is no significant difference in the stu-

dent ranking of high school preparedness for college freshman psychology

among college students receiving grades of A, B, C, D, or F. This

hypothesis was not rejected on the basis of this study. The probability

of the high school preparedness ranking being significantly different

for the grade groups was: .20 $<$ $\underline{P}$ $<$.30.

Conclusions

Based on the results of this study it is concluded that students'

perception of preparedness ranking is not closely related to their

grade performance. This is possible due to the sequencing of the

activities whereby the subjects first reflected on their preparedness

of each factor before ranking their overall high school preparedness

for a particular discipline. In this way, the course grade was mini-

mized as an objective, as the subject first considered his preparedness

in each separate factor.

The ranking of high school preparedness in social science disci-

plines from best prepared to least prepared as perceived by students

was: geography, political science, history, psychology, and economics.

Students at Panhandle State University do not often enroll in sociology as a freshman. This is probably due to the scheduling conflicts of required courses.

Students do perceive their social science courses in component areas that can be generalized as well prepared areas and least prepared areas. The identification of these broad categories can be of value in curriculum planning by directing the objectives and methodology toward students' perceived weak and strong preparation areas. Specifically, well prepared areas of a discipline can be used to explore processes and analytical skills, while less prepared areas can focus on expanding knowledge and research exploration, thus providing an additional rationale for the organization of a particular course syllabus.

There is a great deal of variability among students' perception of high school preparation as evidenced by the areas suggested under both headings of well prepared and least prepared. These factors that subjects listed in both the well prepared and least prepared areas are where caution should be used in curriculum planning, as students are apt to have quite divergent background preparations.

New areas of a discipline that are deemed as important to students are indicative of student interests. A course modification might explore these areas to some extent to maintain relevancy as viewed from a student perspective.

The Delphi technique is modified to gain student opinion with little faculty or administration influence. The self-generating information procedure may have some shortcomings, however, students do sit in judgment and reflect on the introductory course requirements in view of their past preparation. Their opinions are important because

they are the people who have actually participated in the course experience.

The Delphi technique is a method of gaining student opinion, free of peer pressure. This is evident in the following student comment: "I think you all should have picked someone else to answer your questionnaire who is a lot smarter. Who can give you what you want to know." This written statement expresses such low self esteem, that it is doubtful the individual would contribute any suggestions in a face-to-face encounter process. Yet, with the Delphi technique this student did contribute input and influenced the consensus as much as any other subject. Thus, the strength of the modified Delphi technique is evident.

The Delphi technique is valuable in creating student awareness about the curriculum and the student's importance in the curriculum evaluation process. The feeling of neglect, apathy, and powerlessness is partially off set by the Delphi procedure, as information is collected from students and then shared with them in a developmental manner. This is reflected in the student comments that follow: "I was well prepared as far as events go. When I got to college more emphasis was placed on what caused those events;" or "Current events are very strongly rated number one;" or "I changed the ranking because I myself needed more background in these areas;" and finally in reference to labor unions, "This is important in my life."

Use of the Study Results

On the basis of the data obtained in this study and the review of the literature, there would seem to be some conflicts with regard

to the use of student perceptions in curriculum evaluation. The use of student input in future curriculum planning has much appeal in a world where individual recognition and contribution is viewed as the democratic way to proceed. However, the assumption of good student equals good perception, or expressed slightly differently, as real student interest equals good perception, appears to be a hazardous one. With this type of assumption pseudo-type research can result in a good technique resting upon a shaky foundation. A more rigorously designed study, or the application of accurate reliability testing, is paramount before the results of a study can be implemented with strong convictions. This study, analyzed in two parts, can be applied to curriculum revision based on the Delphi technique generated factors. As in some Delphi studies, recommendations could be made in an unqualified way, resting on the assumption that people can accurately rank their perceptions. This would appear to be a serious error in view of the second part of this researcher's results.

Using the Delphi process to focus the subjects' attention upon the component parts of a discipline, and also to allow a time lapse for reflection, and the subsidence of grade-generated emotionalism, the expectations of a close relationship between the factor rankings and the students' grade performance was not expected. This relationship did not occur in a significant way, thus indicating that course grades are not important as a goal in the students' values. It is probable that they rank the course factors according to their contribution in the understanding of the discipline.

The Delphi results do offer some insight into the teaching techniques that might be most successful within a given discipline.

Emphasis on knowledge gathering processes would likely be most appro-

priate in areas where students believe they are least prepared, while

the exploration of techniques of analysis and the consideration of

alternatives as in problem solving might be most productive in the

areas where students believed they were well prepared.

Recommendations for Further Research

A study could be designed to incorporate the perceptions of stu-

dents as in this study with the perceptions of faculty in a particular

discipline, as they think students are prepared. These could be

ranked by both groups, however, disguising the source of the suggested

areas would be desirable. A comparison could thus be made to determine

the grade group of students who most closely fit the perceptions and

ranking of the faculty. It would seem logical to assume A students

would exhibit the strongest correlation. In addition, the differences

in important areas of a discipline could be compared with regard to

student and faculty perceptions. This type of study would be based

on a triad, students, faculty, and student accomplishment, and thus

be a much stronger base upon which to build curriculum revisions.

Since student perceptions appear imprecise with regard to perfor-

mance, it would seem likely faculty perceptions are also suspect. A

better understanding between these two forces might be mutually bene-

ficial if the degree of perceptions, or lack of it, were widely known

by both parties.

Studies are needed to determine which of the important areas of

a discipline, as perceived by students, have the strongest correlation

with course achievement. The possibility exists that some student

perceptions are more valid than others, and an overall preparedness

relationship is weak due to the interaction effect of both strong and

weak relationship perceptions. In this suggested study, areas of a

discipline could be taken from the researcher's study or selected

areas of a discipline viewed as most important by faculty. If faculty

input is used, the perception of faculty might also be through a faculty

evaluated ranking order that they believe is important and correlate

these with student performance.

Another area of research suggested by this study is to relate

the self concept of students to their perception of the important

areas of a discipline. This might determine if perceptions of impor-

tant areas in a discipline and self-concept inventories are related

significantly different to grade performance.

Research comparing students' perception, arrived at through the

Delphi technique, with those of a control group who simply ranked

the same factors without using this process would be a way to deter-

mine if any significant difference exists. If perceptions are more

accurate with the Delphi technique, other modifications could be

explored to obtain even greater accuracy.

Further studies need to be made utilizing a population made up

only of a grade group, such as A students, to determine if this

selected population could arrive at a high relationship between per-

ceptions and performance through the Delphi process.

Finally, studies which attempt to correlate a set of randomly

selected areas of a discipline with performance, and the correlation

between Delphi developed factors and performance would be useful in

curriculum planning.

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APPENDIX A

CORRESPONDENCE NUMBER ONE

February 23, 1977

Dear

The Behavioral and Social Science department at Panhandle State University is now in the process of analyzing its curriculum. I believe one of the most crucial sources of untapped knowledge lies within our own students, hence, seventy of our students are being asked to assist in the process. The information you contribute will be carefully analyzed and your collective ideas used in future curriculum revisions.

The Delphi technique will be the method used to obtain your ideas, as it does not require bringing all of you together, yet it does give you a clear picture of how the other sixty-nine students respond to the same questions you will be considering. Three separate instrument forms will be used to gather and finalize your collective input, so that in the final phase a collective opinion of all seventy participants will be known.

The first instrument form is attached. I hope you will agree to participate and become a part of this effort to improve the Behavioral and Social Science Department at Panhandle State University. Your statements are considered confidential and will only be used as part of a composite total. As soon as this data is summarized I will contact you for the second phase.

Sincerely yours,

Wayne H. Tyler, Chairman
Department of Behavioral and Social
  Sciences
Room 112
Hamilton Hall
Panhandle State University

February 23, 1977

The attached names of students are enrolled in a class of yours at the time and days indicated.

Would you distribute the questionaire to these people, and ask them to fill it out and return it to me in the next few days? They are part of a random sample of students I am using to evaluate the social science curriculum.

Thanks,

Wayne Tyler
Hamilton Hall, Room 112
Home Phone: 349-2211

Name_____High School Where Graduated_____

Local Address_____

Instructions: The Behavioral and Social Science Department offers many
courses that are often taken by freshman students. Now that you are a
Sophomore, please reflect upon the social science courses you have taken
in your freshman year at Panhandle State University, then fill out a
separate sheet for each subject area you have had.

Check the subject area:
__Political Science (Government   __Economics
__History   __Sociology
__Psychology   __Geography

              GRADE RECEIVED____

Please list up to five possible areas of the subject checked above that
you believe you were well prepared in High School to understand as it
was presented in the college course.

| For example, consider the unrelated subject of Biology. You |
| might list: |
| 1. _____*cells*_____ |
| 2. _____*genetics*_____ |
| 3. _____*evolution*_____ |
| 4. _____*etc.*_____ |
| 5. _____ |

1. _____
2. _____
3. _____
4. _____
5. _____

Please list up to five possible areas of the subject checked above that
you believe you were least prepared by high school to understand as it
was presented in the college course.

| For example, consider Biology again, you might list: |
| 1. *biological populations* |
| 2. *animal behavior* |
| 3. *classification of organisms* |
| 4. *etc.* |
| 5. _____ |

1. _____
2. _____
3. _____
4. _____
5. _____

Please list up to five possible areas of the subject checked above that were not covered in the college course, but deem important to you.

For example, consider Biology again, you might list:
1. _reproduction_
2. _ecology_
3. _etc._
4. _____
5. _____

1. _____
2. _____
3. _____
4. _____
5. _____

If you have any additional comments, please state them here.

March 9, 1977

I have received nearly half of the completed questionaires as students express their opinion on student prepareoness in the social sciences. Because you are part of this special selected sample, your input is of vital importance for a valid cross-section of student views.

I will appreciate it is you would take a few minutes to jot down your views on the form you received last week, and return it to me at room 112 Hamilton Hall.

If you could possibly get it to me by Friday afternoon (March 12), it will be most helpful so I can start tabulation this weekend.

                    Thanks,

                    Wayne Tyler

P.S. If you need an extra form or have misplaced yours, I have more.

APPENDIX B

CORRESPONDENCE NUMBER TWO

April 12, 1977

Dear

Thank you for completing the first of three correspondence sheets
that I am anlyzing in order to effect improvements in the Behavioral
and Social Science Department. Your assistance in completing corre-
spondence sheet number two by April 20, will help insure the continued
success of this project.

The attached correspondence sheets contain the factors from each of
the three areas in which you were asked to assist for each social
science course you had as a freshman. In order to determine what
students think are the areas of a subject they were best prepared
for, I am asking you to rank each factor on a scale. The scale
has a range from (1) best prepared, to (11) least prepared for
the first two areas of the study. The third area, which is con-
cerned with areas of the subject not covered in your college course,
will be ranked according to how important you think the factors are.
The scale has a range from (1) most important, to (11) least
important. If I have somehow missed a factor that you consider
important, please list it on the back of the sheet and give it
the rank that you believe it deserves.

Again, I want to thank you for your time and continued assistance
in this project.

Sincerely,

Wayne H. Tyler
Head, Department of Behavioral
        and Social Science

WHT/mgd

Name_____Local Address_____

<div align="center">CORRESPONDENCE SHEET NO. 2</div>

Below are the combined factors that you and others suggested were
important areas where you believed you were well prepared in high
school to understand your freshman course in Economics. In order that
a priority can be determined in these areas, please rank each factor
on an 11 point continuum, ranging from best prepared (1) to least
prepared (11), by placing a check for each line in the appropriate box.

Example:	Best Prepared	Least Prepared
Tariffs	/ / / / / / / / / / / /	
	1 2 3 4 5 6 7 8 9 10 11	

Factors:		
Business Operations	/ / / / / / / / / / / /	
Capital	/ / / / / / / / / / / /	
Collective Bargaining	/ / / / / / / / / / / /	
Depression and Recession	/ / / / / / / / / / / /	
Diminishing Returns	/ / / / / / / / / / / /	
Economic History	/ / / / / / / / / / / /	
Economic System	/ / / / / / / / / / / /	
Graphics	/ / / / / / / / / / / /	
Labor Unions	/ / / / / / / / / / / /	
Mercantilism	/ / / / / / / / / / / /	
Monetary Systems	/ / / / / / / / / / / /	
Monopoly	/ / / / / / / / / / / /	
Personal Finance	/ / / / / / / / / / / /	
Price System	/ / / / / / / / / / / /	
Resource Use	/ / / / / / / / / / / /	
Supply and Demand	/ / / / / / / / / / / /	
Taxation	/ / / / / / / / / / / /	
Utility	/ / / / / / / / / / / /	

Would you also reflect on your preparation leading into your college
course and rank "How well you were prepared" on a scale similar to the
one you have just completed. It is possible that your preparation in
a particular discipline such as economics did not stem from a particular
high school course in economics but from other sources such as a busi-
ness course, a social studies course or even from high school exper-
iences such as class treasurer, or selling ads for a school paper. In
making the following ranking try to include the sum total of your high
school preparation for that particular course you had as a freshman in
college.

High School Preparation for College:	Well Prepared	Not Well Prepared
	1 2 3 4 5 6 7 8 9 10 11	
Economics	/ / / / / / / / / / / /	

Below are the combined factors that you and others suggested were areas where you believed you were least prepared in high school to understand your freshman course in Economics. In order that a priority can be determined on these areas, please rank each factor on an 11 point continuum ranging from the area you were best prepared (1) to the area you were least prepared (11).

	Best Prepared						Least Prepared				
	1	2	3	4	5	6	7	8	9	10	11
Business Cycles	/	/	/	/	/	/	/	/	/	/	/
Changes in Supply and Demand	/	/	/	/	/	/	/	/	/	/	/
Charts	/	/	/	/	/	/	/	/	/	/	/
Consequences of Inflation	/	/	/	/	/	/	/	/	/	/	/
Costs of Production	/	/	/	/	/	/	/	/	/	/	/
Depressions	/	/	/	/	/	/	/	/	/	/	/
Economic History	/	/	/	/	/	/	/	/	/	/	/
Elasticity	/	/	/	/	/	/	/	/	/	/	/
Government Spending	/	/	/	/	/	/	/	/	/	/	/
Graphs	/	/	/	/	/	/	/	/	/	/	/
Interest	/	/	/	/	/	/	/	/	/	/	/
Money	/	/	/	/	/	/	/	/	/	/	/
Schedules	/	/	/	/	/	/	/	/	/	/	/
Taxation	/	/	/	/	/	/	/	/	/	/	/
Underdeveloped Countries	/	/	/	/	/	/	/	/	/	/	/
Use of Economics in Day to Day Living	/	/	/	/	/	/	/	/	/	/	/

Below are the factors that you and others suggested as important but not covered in the college course of Economics.

In order to determine a priority, please rank each factor on an 11 point continuum, ranging from most important (1) to least Important (11).

NEW AREA TO COVER

	Most Important						Least Important				
	1	2	3	4	5	6	7	8	9	10	11
Economics of Other Nations	/	/	/	/	/	/	/	/	/	/	/
Labor Unions	/	/	/	/	/	/	/	/	/	/	/
Salesmanship	/	/	/	/	/	/	/	/	/	/	/
Using Economics in Daily Living	/	/	/	/	/	/	/	/	/	/	/
Wages	/	/	/	/	/	/	/	/	/	/	/

Name_____Local Address_____

CORRESPONDENCE SHEET NO. 2

Below are the combined factors that you and others suggested were impor-
tant areas where you believed you were well prepared in high school
to understand your freshman course in Geography. In order that a prior-
ity can be determined in these areas, please rank each factor on an 11
point continuum, ranging from best prepared (1) to least prepared (11),
by placing a check for each line in the appropriate box.

Example	Best Prepared					Least Prepared					
Soil Types	/	/	/	/	/	/	/	/	/	/	/
	1	2	3	4	5	6	7	8	9	10	11

Factors:											
Capitals	/	/	/	/	/	/	/	/	/	/	/
Glaciers	/	/	/	/	/	/	/	/	/	/	/
Gravity	/	/	/	/	/	/	/	/	/	/	/
Lakes	/	/	/	/	/	/	/	/	/	/	/
Land Formations	/	/	/	/	/	/	/	/	/	/	/
Map Reading	/	/	/	/	/	/	/	/	/	/	/
Mountain Ranges	/	/	/	/	/	/	/	/	/	/	/
Nations	/	/	/	/	/	/	/	/	/	/	/
Oceans	/	/	/	/	/	/	/	/	/	/	/
Planets	/	/	/	/	/	/	/	/	/	/	/
Plateaus	/	/	/	/	/	/	/	/	/	/	/
Rivers	/	/	/	/	/	/	/	/	/	/	/
Sun	/	/	/	/	/	/	/	//	/	/	/
U.S. Geography	/	/	/	/	/	/	/	/	/	/	/
World Geography	/	/	/	/	/	/	/	/	/	/	/

Would you also reflect on your preparation leading into your college
course and rank "How well you were prepared" on a scale similar to the
one you have just completed. It is possible that your preparation in
a particular discipline such as Geography did not stem from a particu-
lar high school course in Geography but from other sources such as a
business course, a social studies course or even from high school
experiences such as a class treasurer, or selling ads for a school
paper. In making the following ranking try to include the sum total
of your high school preparation for that particular course you had as
a freshman in college.

High School Preparation for College: Geography	Well Prepared							Not Well Prepared			
	1	2	3	4	5	6	7	8	9	10	11
	/	/	/	/	/	/	/	/	/	/	/

Below are the combined factors that you and others suggested were areas where you believed you were least prepared in high school to understand your freshman course in Geography. In order that a priority can be determined on these areas, please rank each factor on an 11 point continuum ranging from the area you were best prepared (1) to the area you were least prepared (11).

	Best Prepared					Least Prepared					
	1	2	3	4	5	6	7	8	9	10	11
Climatic Areas of the World	/	/	/	/	/	/	/	/	/	/	/
Countries	/	/	/	/	/	/	/	/	/	/	/
Earth Quakes	/	/	/	/	/	/	/	/	/	/	/
Life Styles in Different Geographic Regions	/	/	/	/	/	/	/	/	/	/	/
Minerals	/	/	/	/	/	/	/	/	/	/	/
Mountains	/	/	/	/	/	/	/	/	/	/	/
National Geology	/	/	/	/	/	/	/	/	/	/	/
Nations and Capitals	/	/	/	/	/	/	/	/	/	/	/
Rivers	/	/	/	/	/	/	/	/	/	/	/
Soils	/	/	/	/	/	/	/	/	/	/	/
Types of People	/	/	/	/	/	/	/	/	/	/	/
World Geology	/	/	/	/	/	/	/	/	/	/	/

Below are the factors that you and others suggested as important but not covered in the college course of Geography.

In order to determine a priority, please rank each factor on an 11 point continuum, ranging from most important (1) to least important (11).

NEW AREA TO COVER

	Most Important					Least Important					
	1	2	3	4	5	6	7	8	9	10	11
Compare United States Geography to Other Areas of the World	/	/	/	/	/	/	/	/	/	/	/
Earth Quakes	/	/	/	/	/	/	/	/	/	/	/
Solar System	/	/	/	/	/	/	/	/	/	/	/
Tornados	/	/	/	/	/	/	/	/	/	/	/

Name_____Local Address_____

CORRESPONDENCE SHEET NO. 2

Below are the combined factors that you and others suggested were impor-
tant areas where you believed you were well prepared in high school to
understand your freshman course in History. In order that a priority
can be determined in these areas, please rank each factor on an 11
point continuum, ranging from best prepared (1) to least prepared (11),
by placing a check for each line in the appropriate box.

Example	Best Prepared					Least Prepared					
Transportation Expansion	/	/	/	/	/	/	/	/	/	/	/
	1	2	3	4	5	6	7	8	9	10	11

Factors:

Branches of Government & Politics	/	/	/	/	/	/	/	/	/	/	/
Civil War	/	/	/	/	/	/	/	/	/	/	/
Colonization of America	/	/	/	/	/	/	/	/	/	/	/
Declaration of Independence (fight)	/	/	/	/	/	/	/	/	/	/	/
Depressions	/	/	/	/	/	/	/	/	/	/	/
Effects of Atom Bomb	/	/	/	/	/	/	/	/	/	/	/
England	/	/	/	/	/	/	/	/	/	/	/
European History (early)	/	/	/	/	/	/	/	/	/	/	/
Explorers (early)	/	/	/	/	/	/	/	/	/	/	/
French and Indian War	/	/	/	/	/	/	/	/	/	/	/
Historical Men	/	/	/	/	/	/	/	/	/	/	/
History of Early 1900's	/	/	/	/	/	/	/	/	/	/	/
Labor Organizations	/	/	/	/	/	/	/	/	/	/	/
Medieval History	/	/	/	/	/	/	/	/	/	/	/
Presidents (and History)	/	/	/	/	/	/	/	/	/	/	/
Religion	/	/	/	/	/	/	/	/	/	/	/
Revolutionary War	/	/	/	/	/	/	/	/	/	/	/
Sequential Events – pre 20th Century	/	/	/	/	/	/	/	/	/	/	/
Slavery	/	/	/	/	/	/	/	/	/	/	/
Treaties	/	/	/	/	/	/	/	/	/	/	/
War of 1812	/	/	/	/	/	/	/	/	/	/	/
Western Movement	/	/	/	/	/	/	/	/	/	/	/
World War I and II	/	/	/	/	/	/	/	/	/	/	/

Would you also reflect on your preparation leading into your college
course and rank "How well you were prepared" on a scale similar to the
one you have just completed. It is possible that your preparation in
a particular discipline as History did not stem from a particular high
school course in History but from other sources such as a business
course, a social studies course or even from high school experiences as
a class treasurer, or selling ads for a school paper. In making the
following ranking try to include the sum total of your high school pre-
paration for that particular course you had as a freshman in college.

High School Preparation	Well Prepared					Not Well Prepared					
For College:	1	2	3	4	5	6	7	8	9	10	11
History	/	/	/	/	/	/	/	/	/	/	/

Below are the combined factors that you and others suggested were areas where you believed you were least prepared in high school to understand your freshman course in History. In order that a priority can be determined on these areas, please rank each factor on an 11 point continuum ranging from the area you were best prepared in (1) to the area you were least prepared in (11).

	Best Prepared						Least Prepared				
	1	2	3	4	5	6	7	8	9	10	11
American Indian Wars	/	/	/	/	/	/	/	/	/	/	/
Civil War	/	/	/	/	/	/	/	/	/	/	/
Colonial Politics & Constitution	/	/	/	/	/	/	/	/	/	/	/
Dates - Important	/	/	/	/	/	/	/	/	/	/	/
Depressions	/	/	/	/	/	/	/	/	/	/	/
Discovery of America & Colonization	/	/	/	/	/	/	/	/	/	/	/
Early History and Events	/	/	/	/	/	/	/	/	/	/	/
European History	/	/	/	/	/	/	/	/	/	/	/
Foreign Policy & International Trade	/	/	/	/	/	/	/	/	/	/	/
Great Men - Important & Radicals	/	/	/	/	/	/	/	/	/	/	/
Government Conflicts & Structure	/	/	/	/	/	/	/	/	/	/	/
Industrial Revolution	/	/	/	/	/	/	/	/	/	/	/
Labor Unions - Early History	/	/	/	/	/	/	/	/	/	/	/
Post War Problems	/	/	/	/	/	/	/	/	/	/	/
Recent History	/	/	/	/	/	/	/	/	/	/	/
Reconstruction	/	/	/	/	/	/	/	/	/	/	/
Religion	/	/	/	/	/	/	/	/	/	/	/
Treaties and Territories	/	/	/	/	/	/	/	/	/	/	/
War of 1812 & Other Wars	/	/	/	/	/	/	/	/	/	/	/
Western Expansion	/	/	/	/	/	/	/	/	/	/	/
World War I & II - Events	/	/	/	/	/	/	/	/	/	/	/

Below are the factors that you and others suggested as important but not covered in the college course of History.

In order to determine a priority, please rank each factor on an 11 point continuum, ranging from most important (1) to least important (11).

NEW AREA TO COVER

	Most Important						Least Important			
	1	2	3	4	5	6	7	8	9	10	11
Bill of Rights - Constitution	/	/	/	/	/	/	/	/	/	/	/
Black History	/	/	/	/	/	/	/	/	/	/	/
Civil War	/	/	/	/	/	/	/	/	/	/	/
Current Events	/	/	/	/	/	/	/	/	/	/	/
Depressions	/	/	/	/	/	/	/	/	/	/	/
Events - Watergate, Cattle Drives, Etc.	/	/	/	/	/	/	/	/	/	/	/
Foreign History	/	/	/	/	/	/	/	/	/	/	/
Gov't Ownership - Natural Resources	/	/	/	/	/	/	/	/	/	/	/
Government Structure	/	/	/	/	/	/	/	/	/	/	/
Hitler's Reign	/	/	/	/	/	/	/	/	/	/	/
Industries & Industrial Revolution	/	/	/	/	/	/	/	/	/	/	/
Medieval History	/	/	/	/	/	/	/	/	/	/	/
Men - Famous	/	/	/	/	/	/	/	/	/	/	/
Migration	/	/	/	/	/	/	/	/	/	/	/
Modern Technology	/	/	/	/	/	/	/	/	/	/	/
Present Problems - History	/	/	/	/	/	/	/	/	/	/	/
Presidents - Terms & Accomplishments	/	/	/	/	/	/	/	/	/	/	/
Religion	/	/	/	/	/	/	/	/	/	/	/
State's History	/	/	/	/	/	/	/	/	/	/	/
Wars - Korean, World War I, Viet Nam, Napoleonic, Indian Wars	/	/	/	/	/	/	/	/	/	/	/
Wartime Policy vs Peace-time Policy	/	/	/	/	/	/	/	/	/	/	/
Western Expansion	/	/	/	/	/	/	/	/	/	/	/

Name_____Local Address_____

CORRESPONDENCE SHEET NO. 2

Below are the combined factors that you and others suggested were impor-
tant areas where you believed you were well prepared in high school to
understand your freshman course in Political Science (Government). In
order that a priority can be determined in these areas, please rank each
factor on an 11 point continuum, ranging from best prepared (1), to
least prepared (11).

Example	Best Prepared						Least Prepared				
Vice Presidents	/	/	/	/	/	/	/	/	/	/	/
	1	2	3	4	5	6	7	8	9	10	11
Amendments	/	/	/	/	/	/	/	/	/	/	/
American Federalism	/	/	/	/	/	/	/	/	/	/	/
Basic Study of Government	/	/	/	/	/	/	/	/	/	/	/
Civics	/	/	/	/	/	/	/	/	/	/	/
Civil Rights	/	/	/	/	/	/	/	/	/	/	/
Congress	/	/	/	/	/	/	/	/	/	/	/
Constitution	/	/	/	/	/	/	/	/	/	/	/
Counties	/	/	/	/	/	/	/	/	/	/	/
Court Cases	/	/	/	/	/	/	/	/	/	/	/
Electoral College & Elections	/	/	/	/	/	/	/	/	/	/	/
Great Men in Politics	/	/	/	/	/	/	/	/	/	/	/
History of Government	/	/	/	/	/	/	/	/	/	/	/
Laws	/	/	/	/	/	/	/	/	/	/	/
Offices of Political Men	/	/	/	/	/	/	/	/	/	/	/
Political Parties	/	/	/	/	/	/	/	/	/	/	/
Powers of Government	/	/	/	/	/	/	/	/	/	/	/
Presidents	/	/	/	/	/	/	/	/	/	/	/
Procedures (Political)	/	/	/	/	/	/	/	/	/	/	/
State, Local, National Government	/	/	/	/	/	/	/	/	/	/	/
Supreme Court	/	/	/	/	/	/	/	/	/	/	/
Voting Process	/	/	/	/	/	/	/	/	/	/	/
Functions of Executive, Legislative Judicial Branches of Government	/	/	/	/	/	/	/	/	/	/	/

Would you also reflect on your preparation leading into your college
course and rank "How well you were prepared" on a scale similar to the
one you have just completed. It is possible that your preparation in
a particular discipline as Political Science (Government) did not stem
from a particular high school course in Political Science (Government),
but from other sources such as a business course, a social studies
course or even from high school experiences such as a class treasurer,
or selling ads for a school paper. In making the following ranking try
to include the sum total of your high school preparation for a particular
course you had as a freshman in college.

High School Preparation for College Political Science	Well Prepared						Not Well Prepared				
	1	2	3	4	5	6	7	8	9	10	11
	/	/	/	/	/	/	/	/	/	/	/

Below are the combined factors that you and others suggested were areas
where you believed you were least prepared in high school to understand
your freshman course in Political Science (Government). In order that
a priority can be determined on these areas, please rank each factor on
an 11 point continuum ranging from the area you were best prepared in
(1) to the area you were least prepared in (11).

	Best Prepared					Least Prepared				
	1	2	3	4	5	6	7	8	9	10	11
Bill of Rights	/	/	/	/	/	/	/	/	/	/	/
Bureaucracy	/	/	/	/	/	/	/	/	/	/	/
Civil Rights	/	/	/	/	/	/	/	/	/	/	/
Constitutional Amendments	/	/	/	/	/	/	/	/	/	/	/
Court Cases	/	/	/	/	/	/	/	/	/	/	/
Court System	/	/	/	/	/	/	/	/	/	/	/
Electoral College & Elections	/	/	/	/	/	/	/	/	/	/	/
Evolution of Political Parties	/	/	/	/	/	/	/	/	/	/	/
Foreign Politics	/	/	/	/	/	/	/	/	/	/	/
Government & Presidential Power	/	/	/	/	/	/	/	/	/	/	/
History of Government	/	/	/	/	/	/	/	/	/	/	/
National Supremacy	/	/	/	/	/	/	/	/	/	/	/
Officials and Offices	/	/	/	/	/	/	/	/	/	/	/
Origin & Passing of Laws	/	/	/	/	/	/	/	/	/	/	/
Political Conventions	/	/	/	/	/	/	/	/	/	/	/
Political System	/	/	/	/	/	/	/	/	/	/	/
Presidential Rights	/	/	/	/	/	/	/	/	/	/	/
State & Local Government Relations	/	/	/	/	/	/	/	/	/	/	/
Theories of Government	/	/	/	/	/	/	/	/	/	/	/

Below are the factors that you and others suggested as important, but not covered in the college course of Political Science (Government).

In order to determine a priority, please rank each factor on an 11 point continuum, ranging from most important (1) to least important (11).

<u>NEW AREA TO COVER</u>

	Most Important					Least Important				
	1	2	3	4	5	6	7	8	9	10	11
Ambassadors	/	/	/	/	/	/	/	/	/	/	/
Cabinet Advisors	/	/	/	/	/	/	/	/	/	/	/
Cases	/	/	/	/	/	/	/	/	/	/	/
Civil Rights - How to Uphold Them	/	/	/	/	/	/	/	/	/	/	/
Constitution	/	/	/	/	/	/	/	/	/	/	/
Courts & Their Powers (Trials)	/	/	/	/	/	/	/	/	/	/	/
Declaration of Independence	/	/	/	/	/	/	/	/	/	/	/
Electoral System and Elections	/	/	/	/	/	/	/	/	/	/	/
Foreign Politics & Policies	/	/	/	/	/	/	/	/	/	/	/
Government Branches	/	/	/	/	/	/	/	/	/	/	/
Government Scandals & Propaganda	/	/	/	/	/	/	/	/	/	/	/
History of Government	/	/	/	/	/	/	/	/	/	/	/
Laws - Passing and New	/	/	/	/	/	/	/	/	/	/	/
Other State Laws	/	/	/	/	/	/	/	/	/	/	/
Party Caucuses	/	/	/	/	/	/	/	/	/	/	/
Political Actions - Recent	/	/	/	/	/	/	/	/	/	/	/
Powers of Government Branches	/	/	/	/	/	/	/	/	/	/	/
President	/	/	/	/	/	/	/	/	/	/	/
Tax Structure	/	/	/	/	/	/	/	/	/	/	/
Teach Fewer Cases	/	/	/	/	/	/	/	/	/	/	/
Vice-President (Duties, etc.)	/	/	/	/	/	/	/	/	/	/	/

Name_____Local Address_____

CORRESPONDENCE SHEET NO. 2

Below are the combined factors that you and others suggested were
important areas where you believed you were well prepared in high
school to understand your freshman course in Psychology. In order
that a priority can be determined in these areas, please rank each
factor on an 11 point continuum, ranging from best prepared (1) to
least prepared (11) by placing a check for each line in the appropriate
box.

Example: Best Prepared   Least Prepared

Learning Theories	/ / / / / / / / / / /
	1 2 3 4 5 6 7 8 9 10 11

Factors:

Child Care	/ / / / / / / / / / /
Conditioning	/ / / / / / / / / / /
Emotions	/ / / / / / / / / / /
Experiments in Behavior Psychology	/ / / / / / / / / / /
Family Relationships	/ / / / / / / / / / /
Freud's Theories	/ / / / / / / / / / /
Functions of the Brain	/ / / / / / / / / / /
Habit Formations	/ / / / / / / / / / /
Heredity	/ / / / / / / / / / /
History of Psychology	/ / / / / / / / / / /
Human Relations	/ / / / / / / / / / /
Human Sexuality	/ / / / / / / / / / /
Marriage	/ / / / / / / / / / /
Parents as Models	/ / / / / / / / / / /
Personality Development	/ / / / / / / / / / /
Self Esteem	/ / / / / / / / / / /

Would you also reflect on your preparation leading into your college
course and rank "How well you were prepared" on a scale similar to the
one you have just completed. It is possible that your preparation in
a particular discipline as Psychology did not stem from a particular
high school course in psychology but from other sources as a business
course, a social studies course or even from high school experiences
as a class treasurer, or selling ads for a school paper. In making
the following ranking try to include the sum total of your high school
preparation for that particular course you had as a freshman in college.

High School Preparation   Well Prepared   Not Well Prepared
     for College: 1 2 3 4 5 6 7 8 9 10 11
        Psychology   / / / / / / / / / / /

Below are the combined factors that you and others suggested were areas where you believed you were least prepared in high school to understand your freshman course in Psychology. In order that a priority can be determined on these areas, please rank each factor on an 11 point continuum ranging from the area you were best prepared in (1) to the least prepared in (11).

	Best Prepared							Least Prepared			
	1	2	3	4	5	6	7	8	9	10	11
Aging	/	/	/	/	/	/	/	/	/	/	/
Behavior Psychology	/	/	/	/	/	/	/	/	/	/	/
Behaviorism	/	/	/	/	/	/	/	/	/	/	/
Brain Waves	/	/	/	/	/	/	/	/	/	/	/
Child Care	/	/	/	/	/	/	/	/	/	/	/
Educational Psychology	/	/	/	/	/	/	/	/	/	/	/
Emotions	/	/	/	/	/	/	/	/	/	/	/
History of Psychology	/	/	/	/	/	/	/	/	/	/	/
Human Development	/	/	/	/	/	/	/	/	/	/	/
Human Relations – Getting Along With Others	/	/	/	/	/	/	/	/	/	/	/
Imprinting	/	/	/	/	/	/	/	/	/	/	/
Instinct	/	/	/	/	/	/	/	/	/	/	/
Mental Disorders	/	/	/	/	/	/	/	/	/	/	/
Mental Illness	/	/	/	/	/	/	/	/	/	/	/
Personal Identity Development	/	/	/	/	/	/	/	/	/	/	/
Personality Development	/	/	/	/	/	/	/	/	/	/	/
Psychological Distress	/	/	/	/	/	/	/	/	/	/	/
Relating to Others	/	/	/	/	/	/	/	/	/	/	/
Theories of Psychology	/	/	/	/	/	/	/	/	/	/	/
Youth	/	/	/	/	/	/	/	/	/	/	/

Below are the factors that you and others suggested as important but not covered in the college course of Psychology.

In order to determine a priority, please rank each factor on an 11 point continuum, ranging from most important (1) to least important (11).

NEW AREA TO COVER

	Most Important						Least Important				
	1	2	3	4	5	6	7	8	9	10	11
Available Places for Counseling	/	/	/	/	/	/	/	/	/	/	/
Behavior Patterns	/	/	/	/	/	/	/	/	/	/	/
Classical Conditioning	/	/	/	/	/	/	/	/	/	/	/
Cures of Mental Illness	/	/	/	/	/	/	/	/	/	/	/
Dealing With Stress	/	/	/	/	/	/	/	/	/	/	/
Death	/	/	/	/	/	/	/	/	/	/	/
Depression	/	/	/	/	/	/	/	/	/	/	/
Environmental Factors & Mental Health	/	/	/	/	/	/	/	/	/	/	/
Human Sexuality	/	/	/	/	/	/	/	/	/	/	/
Hypnosis	/	/	/	/	/	/	/	/	/	/	/
Marriage and Family	/	/	/	/	/	/	/	/	/	/	/
Mental Diseases	/	/	/	/	/	/	/	/	/	/	/
Personal Social Adjustment	/	/	/	/	/	/	/	/	/	/	/
Reflex Behavior	/	/	/	/	/	/	/	/	/	/	/
Social Pressures	/	/	/	/	/	/	/	/	/	/	/

APPENDIX C
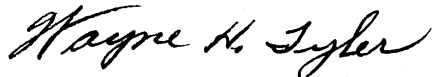
CORRESPONDENCE NUMBER THREE

May 2, 1977

Dear

The study of student preparation for freshman college courses in
the Behavioral and Social Science Department has been successful
and your contribution has certainly been very important.

Attaahed is a ranking of the factors for each of the three areas
for each social science course you had as a freshman. As the
last step in your participation, please examine these rankings.
If you believe that some of the factors should be ranked signifi-
cantly higher or lower, list the factors in the space provided
and indicate the ranks you believe they deserve. If you believe
the rankings to be substantially correct, and reflects your
convictions, you need not return the correspondence.

Because student generated information is the core of this study,
I would again encourage you to include your comments as they will
be helpful in guiding curriculum decisions in the future. Please
return any comments to my office, room 112 in Hamilton Hall.

Thank you for your assistance in providing information to
strengthen the Behavioral and Social Science Department at
Panhandle State University.

Sincerely yours,

Wayne H. Tyler, Chairman
Department of Behavioral and Social Sciences
Room 112
Hamilton Hall

Correspondence Sheet No. 3

Below is the ranked order of factors you and others thought
were important areas where you were well prepared in high school
for your freshman college course in Economics. Since the factors
were ranked on an 11 point continuum ranging from best prepared (1),
to least prepared (11), the factors with the lowest group averages
are considered as best prepared and appear first in the ranked
order.

Economics - Well Prepared Areas

Rank No.	Factor	Group Average
1.	Supply and Demand	4.333
2.	Monopoly	5.000
3.	Personal Finance	5.143
4.	Business Operations	5.400
5.	Price System	5.533
6.5	Monetary Systems	5.667
6.5	Taxation	5.667
8.	Depression and Recession	6.133
9.	Resource Use	6.214
10.	Labor Unions	6.467
11.	Capital	6.846
12.	Utility	6.929
13.	Collective Bargaining	7.133
14.5	Diminishing Returns	7.400
14.5	Economic System	7.400
16.	Mercantilism	7.769
17.	Graphics	7.786
18.	Economic History	8.133

Rank No._____should be changed to Rank No._____.
Reason for ranking change.

Rank No._____should be changed to Rank No._____.
Reason for ranking change.

(Use back of page for additional changes if necessary.

As this is to reflect your opinion, any additional comments you
wish to make will be helpful.

Below is the ranked order of factors you and others thought
were important areas where you were least prepared in high school
for your freshman college course in Economics. Since the factors
were ranked on an 11 point continuum ranging from best prepared (1),.
to least prepared (11), the factors with the lowest group averages
are considered as best prepared and appear first in the ranked
order.

Economics - Least Prepared Areas

Rank No.	Factor	Group Average
1.	Money	4.467
2.	Interest	5.133
3.	Consequences of Inflation	5.400
5.	Changes in Supply and Demand	5.467
5.	Costs of Production	5.467
5.	Use of Economics in Day to Day Living	5.467
7.	Depressions	5.533
8.	Charts	6.267
9.	Government Spending	6.600
10.5	Business Cycles	6.667
10.5	Taxation	6.667
12.	Schedules	6.923
13.5	Elasticity	7.067
13.5	Graphs	7.067
15.	Economic History	8.214
16.	Underdeveloped Countries	8.500

Rank No._____should be changed to Rank No._____.
Reason for ranking change.

Rank No._____should be changed to Rank No._____.
Reason for ranking change.

(Use back of page for additional changes if necessary.

Comments:

Below is the ranked order of factors you and others suggested
as important but not covered in the freshman college course in
Economics. Since the factors were ranked on an 11 point continuum
ranging from most important (1), to least important (11), the
factors with the lowest group averages are considered as most
important and appear first in the ranked order.

<div align="center">Economics - New Areas</div>

Rank No.	Factor	Group Average
1.	Using Economics in Daily Living................1.867	
2.	Wages...2.800	
3.	Labor Unions..................................4.200	
4.	Salesmanship..................................4.267	
5.	Economics of Other Nations....................5.000	

Rank No._____should be changed to Rank No._____.
Reason for ranking change.

Rank No._____should be changed to Rank No._____.
Reason for ranking change.

(Use back of page for additional changes if necessary.)

Comments:

Correspondence Sheet No. 3

Below is the ranked order of factors you and others thought
were important areas where you were well prepared in high school
for your freshman college course in Geography. Since the factors
were ranked on an 11 point continuum ranging from best prepared (1),
to least prepared (11), the factors with the lowest group averages
are considered as best prepared and appear first in the ranked
order.

Geography - Well Prepared Areas

Rank No.	FACTOR	GROUP AVERAGE
1.	Oceans	2.400
2.	Nations	2.600
3.	Capitols	2.800
4.	U. S. Geography	3.000
5.5	Gravity	3.400
5.5	Mountain Ranges	3.400
7.5	Rivers	3.600
7.5	World Geography	3.600
9.	Planets	3.800
10.	Sun	4.000
11.	Map Reading	4.200
12.	Glaciers	4.400
13.	Lakes	4.600
14.	Land Formations	4.800
15.	Plateaus	5.400

Rank No. _____ should be changed to Rank No. _____ .
Reason for ranking change.

Rank No. _____ should be changed to Rank No. _____ .
Reason for ranking change.

(Use back of page for additional changes if necessary.)
As this is to reflect your opinion, any additional comments you
wish to make will be helpful.

Below is the ranked order of factors you and others thought were
important areas where you were least prepared in high school for
your freshman college course in Geography. Since the factors
were ranked on an 11 point continuum ranging from best prepared (1),
to least prepared (11), the factors with the lowest group averages
are considered as best prepared and appear first in the ranked order.

Geography - Least Prepared Areas

Rank No.	FACTOR	GROUP AVERAGE
1.	Countries	2.800
2.	Rivers	3.200
3.	Mountains	3.600
4.	Nations and Capitals	4.200
5.	Climatic Areas of the World	4.400
	National Geology	4.400
6.	Soils	4.400
8.	Earth Quakes	4.800
9.	Types of People	5.200
10.	Minerals	5.400
11.	Life Styles in Different Geographic Regions	5.600
12.	World Geology	6.000

Rank No._____should be changed to Rank No._____.
Reason for ranking change.

Rank No._____should be changed to Rank No._____.
Reason for ranking change.

(Use back of page for additional changes if necessary.)

Comments:

Below is the ranked order of factors you and others suggested
as important but not covered in the freshman college course in
Geography. Since the factors were ranked on an 11 point continuum
ranging from most important (1), to least important (11), the
factors with the lowest group averages are considered as most
important and appear first in the ranked order.

Geography - New Areas

Rank No.	Factor	Group Average
1.	Compare U.S. Geography to other Areas of the World	2.600
2.	Tornadoes..	3.000
3.	Earthquakes...	3.200
4.	Solar System..	4.600

Rank No._____should be changed to Rank No._____.
Reason for ranking change.

Rank No._____should be changed to Rank No._____.
Reason for ranking change.

(Use back of page for additional changes if necessary.)

Comments:

Correspondence Sheet No. 3

Below is the ranked order of factors you and others thought were important areas where you were well prepared in high school for your freshman college course in History. Since the factors were ranked on an 11 point continuum ranging from best prepared (1), to least prepared (11), the factors with the lowest group averages are considered as best prepared and appear first in the ranked order.

History - Well Prepared Areas

Rank No.	Factor	Group Average
1.	Explorers (early)	3.500
2.	Colonization of America	3.562
3.	Declaration of Independence (fight)	3.781
4.	Civil War	4.000
5.	Revolutionary War	4.031
6.	Slavery	4.281
7.	Historical Men	4.375
8.	Presidents (and History)	4.438
9.	Western Movement	4.516
10.	Branches of Government & Politics	4.562
11.	World War I and II	4.688
12.	Treaties	5.094
13.5	History of Early 1900's	5.188
13.5	War of 1812	5.188
15.	Depressions	5.281
16.	French and Indian War	5.312
17.	Sequential Events - Pre 20th Century	5.516
18.	England	6.000
19.	Effects of Atom Bomb	6.250
20.	Religion	6.281
21.	Labor Organizations	6.344
22.	Medieval History	6.688
23.	European History (early)	6.938

Rank No._____should be changed to Rank No._____.
Reason for ranking change.

Rank No._____should be changed to Rank No._____.
Reason for ranking change.

(Use back of page for additional changes if necessary.)

As this is to reflect your opoinion, any additional comments you wish to make will be helpful.

Below is the ranked order of factors you and others thought were important areas where you were least prepared in high school for your freshman college course in History. Since the factors were ranked on an 11 point continuum ranging from best prepared (1), to least prepared (11), the factors with the lowest group averages are considered as best prepared and appear first in the ranked order.

History - Least Prepared Areas

Rank No.	Factor	Group Average
1.	Discovery of America & Colonization	3.781
2.	Civil War	4.094
3.	Western Expansion	4.516
4.	World War I & II - Events	4.781
5.	Colonial Politics & Constitution	4.844
6.5	Industrial Revolution	4.906
6.5	War of 1812 & Other Wars	4.906
8.	Reconstruction	4.969
9.	Treaties and Territories	5.094
10.	Early History and Events	5.281
11.	Recent History	5.312
12.	American Indian Wars	5.344
13.	Post War Problems	5.355
14.	Depressions	5.562
15.	Government Conflicts & Structure	5.656
16.	Dates - Important	5.688
17.	Great Men - Important & Radicals	5.781
18.5	Labor Unions - Early History	6.406
18.5	Religion	6.406
20.	Foreign Policy & International Trade	6.613
21.	European History	6.875

Rank No._____should be changed to Rank No._____.
Reason for ranking change.

Rank No._____should be changed to Rank No._____.
Reason for ranking change.

(Use back of page for additional changes if necessary.)

Comments:

Below is the ranked order of factors you and others suggested
as important but not covered in the freshman college course in
History. Since the factors were ranked on an 11 point continuum
ranging from most important (1), to least important (11), the
factors with the lowest group averages are considered as most
important and appear first in the ranked order.

History - New Areas

Rank No.	Factor	Group Average
1.	Current Events	3.344
2.	Wars - Korean, World War I, Viet Nam, Napoleonic, Indian Wars	3.548
3.	Present Problems - History	3.581
4.	Presidents - Terms & Accomplishments	3.935
5.	Wartime Policy vs Peacetime Policy	4.094
6.	Modern Technology	4.097
7.	Government Structure	4.125
8.	Civil War	4.156
9.	Bill of Rights - Constitution	4.188
10.	State's History	4.250
11.	Men - Famous	4.281
12.	Events - Watergate, Cattle Drives	4.750
13.	Religion	4.812
14.	Western Expansion	4.844
15.	Treaties	4.969
16.	Industries & Industrial Revolution	5.000
17.	Depressions	5.094
18.	Government Ownership - Natural Resources	5.156
19.	Black History	5.688
20.	Migration	5.906
21.	Hitler's Reign	6.594
22.	Medieval History	6.875
23.	Foreign History	6.903

Rank No._____should be changed to Rank No._____.
Reason for ranking change.

Rank No._____should be changed to Rank No._____.
Reason for ranking change.

(Use back of page for additional changes if necessary.)

Comments:

Correspondence Sheet No. 3

Below is the ranked order of factors you and others thought were important areas where you were well prepared in high school for your freshman college course in Political Science (Government). Since the factors were ranked on an 11 point continuum ranging from best prepared (1), to least prepared (11), the factors with the lowest group averages are considered as best prepared and appear first in the ranked order.

Political Science - Well Prepared Areas

Rank No.	Factor	Group Average
1.	Political Parties	3.345
2.	Presidents	3.769
3.	Congress (Senate, House of Represenatives)	3.966
4.	Constitution	4.000
5.	Basic Study of Government	4.069
6.	Voting Process	4.071
7.5	Amendments	4.310
7.5	Powers of Government	4.310
9.	Functions of Executive, Legislative, & Judicial Branches of Government	4.536
10.	State, Local, & National Governments	4.586
11.	Civil Rights	4.931
12.	Civics	5.034
13.	Offices of Political Men	5.036
14.	Great Men in Politics	5.069
15.	Laws	5.207
16.	History of Government	5.276
17.	Supreme Court	5.393
18.	Electoral College & Elections	5.483
19.	Procedures (Political)	5.621
20.	American Federalism	5.966
21.	Counties	6.138
22.	Court Cases	7.286

Rank No._____should be changed to Rank No._____.
Reason for ranking change.

Rank No._____should be changed to Rank No._____.
Reason for ranking change.

(Use back of page for additional changes if necessary.)

As this is to reflect your opinion, any additional comments you wish to make will be helpful.

Below is the ranked order of factors you and others thought
were important areas where you were least prepared in high school
for your freshman college course in Political Science (Government).
Since the factors were ranked on an 11 point continuum ranging
from best prepared (1), to least prepared (11), the factors with
the lowest group averages are considered as best prepared and
appear first in the ranked order.

Political Science - Least Prepared Areas

Rank No.	Factor	Group Average
1.	Bill of Rights	4.069
2.	Constitutional Amendments	4.207
3.5	Presidential Rights	4.517
3.5	State & Local Government Relations	4.517
5.	Evolution of Political Parties	4.690
6.	Government & Presidential Power	4.750
7.	Political System	5.172
8.	Court System	5.321
9.	Electoral College & Elections	5.345
10.	Civil Rights	5.393
11.	Origin & Passing of Laws	5.714
12.	History of Government	5.896
13.	Political Conventions	6.034
14.	Officials and Offices	6.036
15.	National Supremacy	6.556
16.	Theories of Government	6.607
17.	Court Cases	7.034
18.	Foreign Politics	7.536
19.	Bureaucracy	7.679

Rank No._____should be changed to Rank No._____.
Reason for ranking change.

Rank No._____should be changed to Rank No._____.
Reason for ranking change.

(Use back of page for additional changes if necessary.)

Comments:

Below is the ranked order of factors you and others suggested
as important but not covered in the freshman college course in
Political Science (Government). Since the factors were ranked
on an 11 point continuum ranging from most important (1), to least
important (11), the factors with the lowest group averages are
considered as most important and appear first in the ranked order.

Political Science - New Areas

Rank No.	Factor	Group Average
1.	Constitution	2.586
2.	President	3.036
3.	Tax Structure	3.178
4.	Electoral System & Elections	3.207
5.	Courts & Their Powers (trials)	3.586
6.	Laws - Passing and New	3.621
7.	Political Actions - Recent	3.655
8.	Declaration of Independence	3.690
9.	Civil Rights - How to Uphold Them	3.759
10.	Government Branches	3.793
11.	Powers of Government Branches	4.379
12.	Foreign Politics & Policies	4.586
13.	Other State Laws	4.724
14.	Vice-President (duties etc.)	4.759
15.	History of Government	4.966
16.	Government Scandals & Propaganda	5.276
17.	Cabinet Advisors	5.393
18.	Cases	5.500
19.	Party Caucuses	5.724
20.	Teach Fewer Cases	5.929
21.	Ambassadors	6.138

Rank No._____should be changed to Rank No._____.
Reason for ranking change.

Rank No. _____should be changed to Rank No._____.
Reason for ranking change.

(Use back of page for additional changes if necessary.)

Comments:

Correspondence Sheet No. 3

Below is the ranked order of factors you and others thought
were important areas where you were well prepared in high school
for your freshman college course in Psychology. Since the factors
were ranked on an 11 point continuum ranging from best prepared (1),
to least prepared (11), the factors with the lowest group averages
are considered as best prepared and appear first in the ranked
order.

Psychology - Well Prepared Areas

Rank No.	Factor	Group Average
1.	Heredity	4.000
2.	Conditioning	4.286
3.	Family Relationship	4.429
4.	Marriage	4.700
5.	Parents as Models	4.857
6.	Child Care	5.000
7.	Human Sexuality	5.048
8.	Habit Formations	5.143
9.	Self Esteem	5.286
10.	Emotions	5.429
11.	Functions of the Brain	5.619
12.	Human Relations	5.714
13.	Personality Development	5.810
14.	Experiments in Behavior Psychology	5.857
15.	Freud's Theories	6.429
16.	History of Psychology	7.476

Rank No._____should be changed to Rank No._____.
Reason for ranking change.

Rank No. _____should be changed to Rank No._____.
Reason for ranking change.

(Use back of page for additional changes if necessary.)

As this is to reflect your opinion, any additional comments you
wish to make will be helpful.

Below is the ranked order of factors you and others thought
were important areas where you were least prepared in high school
for your freshman college course in Psychology. Since the factors
were ranked on an 11 point continuum ranging from best prepared (1),
to least prepared (11), the factors with the lowest group averages
are considered as best prepared and appear first in the ranked
order.

Psychology - Least Prepared Areas

Rank No.	Factor	Group Average
1.	Human Relations - Getting Along With Others.....	4.333
2.	Human Development................................	5.191
3.	Child Care.......................................	5.429
4.	Personality Development..........................	5.619
5.	Relating to Others...............................	5.714
6.5	Instinct..	5.952
6.5	Mental Disorders................................	5.952
8.	Emotions...	6.000
9.	Youth..	6.048
10.5	Personal Identity Development...................	6.143
10.5	Psychological Distress..........................	6.143
12.	Behaviorism......................................	6.191
13.	Mental Illness...................................	6.333
14.	Behavior Psychology..............................	6.714
15.	Brain Waves......................................	6.905
16.	Educational Psychology...........................	7.150
17.	Theories of Psychology...........................	7.191
18.	History of Psychology............................	7.238
19.	Aging..	7.400
20.	Imprinting.......................................	7.714

Rank No._____should be changed to Rank No._____.
Reason for ranking change.

Rank No._____should be changed to Rank No._____.
Reason for ranking change.

(Use back of page for additional changes if necessary.)

Comments:

3

Below is the ranked order of factors you and others suggested
as important but not covered in the freshman college course in
Psychology. Since the factors were ranked on an 11 point continuum
ranging from most important (1), to least important (11), the
factors with the lowest group averages are considered as most
important and appear first in the ranked order.

Psychology - New Areas

Rank No.	Factor	Group Average
1.5	Dealing with Stress	3.000
1.5	Marriage and Family	3.000
3.	Depression	3.238
4.	Death	3.476
5.	Human Sexuality	3.667
6.	Social Pressures	3.857
7.	Personal Social Adjustment	4.000
8.	Available Places for Counseling	4.143
9.	Cures of Mental Illness	4.286
10.	Mental Diseases	4.333
11.5	Behavior Patterns	4.619
11.5	Environmental factors and Mental Health	4.619
13.	Hypnosis	5.250
14.	Reflex Behavior	5.762
15.	Classical Conditioning	5.952

Rank No._____should be changed to Rank No._____.
Reason for ranking change.

Rank No._____should be changed to Rank No._____.
Reason for ranking change.

(Use back of page for additional changes if necessary.)

Comments:

VITA

Wayne Howard Tyler

Candidate for the Degree of

Doctor of Education

Thesis: STUDENT PERCEPTIONS OF FRESHMAN SOCIAL SCIENCE COURSES

Major Field: Curriculum and Instruction

Biographical:

Personal Data: Born in Hutchinson, Kansas, May 19, 1929, the
son of Howard C. and Hazel M. Tyler.

Education: Attended grade school at Dodge City and Hutchinson,
Kansas; attended high school at Hutchinson, Kansas; gradu-
ated from Hutchinson High School in May, 1947; attended
Hutchinson Junior College and Kansas State University,
receiving a Bachelor of Science in Agriculture from Kansas
State University with a major in Agricultural Economics in
January, 1952; received the Master of Science degree in
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May, 1968; completed requirements for the Doctor of Educa-
tion degree at Oklahoma State University in December, 1977.

Professional Experience: Employed by the Kansas Soil Conservation
Service as Farm Planner in Lincoln County, Kansas, March,
1952 to September, 1954. Employed by the Kansas Extension
Service as Assistant County Agent in Johnson County, Olathe,
Kansas, September, 1954 to November, 1954; Morris County,
Council Grove, Kansas, November, 1954 to March, 1955; Bour-
bon County Agent, Fort Scott, Kansas, March, 1955 to Septem-
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homa, 1966-1969; Assistant Professor in Social Sciences for
Panhandle State University, Goodwell, Oklahoma, 1970-1977;
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Associate Professor of Social Sciences at Panhandle State
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Professional Organizations: Phi Delta Kappa, Southern Economics
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