In an attempt to help college students who needed remedial work in English composition and reading, a combination of four courses (two in English and two in psychology) by means of team teaching and block scheduling was designed at Foothill College. During the spring of 1968, 30 selected students met during a 2-hour block of time five days a week. They were instructed by four teachers. The students were tested at the outset by each of the following tools: (1) the ACT test, (2) the Guilford-Zimmerman Temperament Survey, (3) the Lorge-Thorndike Non-Verbal I.Q. Test, (4) the Nelson-Denny Test, and (5) the California Phonics Survey. The objective of the course was to improve each student’s ability to communicate clearly in English and to participate effectively in a college class. The courses dealt with fundamentals of English, basic reading skills, an introduction to college, and methods of effective study. The basic rationale for the course design was that increased intraclass communication would help students and teachers in their respective performances. The major recommendation growing out of the study was that the four instructors involved in the project be recalled to the campus at least three weeks before the beginning of the Fall term of 1968 to develop a program which would (1) test and diagnose students, (2) meet individual needs, (3) maximize the effectiveness of each instructor, and (4) provide for continuous counseling and evaluation of students. (DG)
RESEARCH REPORT

STUDY SKILLS PROJECT
Spring 1968
Foothill College

De Anza
and
Foothill
Colleges
STUDY SKILLS PROJECT
SPRING 1968
FOOTHILL COLLEGE

Robert Bloesser, Effective Study
Mary Desper, Counseling
Joseph Gallo, English Fundamentals
James W. Keene, Institutional Research
Stanley D. Rosenberry, Reading Skills

Office of Institutional Research
Foothill Junior College District
21250 Stevens Creek Blvd., Cupertino, California
June 19, 1968
BACKGROUND

The establishment of meaningful courses and effective programs for students who are not presently equipped to do college work is of deep concern to the Foothill Junior College District. Such students are, in the nature of things, educationally disadvantaged. The students may or may not be members of minority groups identified as being culturally or socially or economically disadvantaged. This report examines a project which explored a different approach to the problem. It did not prove that this different approach produced measurably better results. It did, however, uncover a number of interesting and undoubtedly important insights and relationships which should be pursued further and which should be of value in shaping programs for the disadvantaged.

The Project was conceived in the Language Arts and Counseling Divisions of Foothill College. Basically, it combines four courses by means of team teaching and block scheduling in an attempt to improve the capability of the poorly prepared student to do college level work.

In the Spring Semester, 1968, thirty students were scheduled to meet in Room L27 from 11:00 a.m. until 1:00 p.m., Monday through Friday to take the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Subject</th>
<th>Units</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engl. 200</td>
<td>English Fundamentals</td>
<td>Gallo</td>
<td>3</td>
</tr>
<tr>
<td>Engl. 201</td>
<td>Basic Reading Skills</td>
<td>Rosenberry</td>
<td>2</td>
</tr>
<tr>
<td>Psych. 50</td>
<td>Intro. to College</td>
<td>Desper</td>
<td>1</td>
</tr>
<tr>
<td>Psych. 53</td>
<td>Effective Study</td>
<td>Bloesser</td>
<td>2</td>
</tr>
</tbody>
</table>

Total 8 Units 10 Hours

The same students were to be together for the same ten hours every week. The four teachers were to use a team teaching approach. While each teacher was to be responsible for his own subject, each was to teach with reference to the content of each other's courses. Lectures and discussions would be attended, insofar as feasible, by all four teachers, who would participate as appropriate in the discussions. The "treatment", or the difference between these students and other students taking these four courses, was that these
students

1. would be together in the same group for ten hours a week, and,
2. would receive team teaching.

The rationale for this treatment was quite simple. Students would get to know each other quicker and better since they would take all four subjects in the same section. Teachers could relate their teaching to that of other teachers more readily if they were in attendance at most of the lecture and discussion sessions of the project. Teachers would get to know and understand students better if they were given an opportunity to observe their performances for other teachers. The group counseling sessions inherent in Psych 50 would be strengthened by the increased intraclass communication developed in the other subjects and by the attendance of the other teachers at appropriate group counseling sessions.

The project received encouragement and guidance from an informal steering committee of the Foothill Faculty:

Charles Brousard
James W. Keene
John C. Lovas
Oberlin B. Nereson

Kenneth N. Griffin
Gerald D. Kohs
V. Nayan McNeill

Shortly after the beginning of the project, it was decided that Dr. Keene should assume the role of observer-evaluator. He was introduced to the class and began to sit in on from two to six hours per week of lecture and discussion. His assignment was to make the assessment and draw up this report.

The project was accomplished without released or assigned time on the part of the faculty members involved. This meant that each teacher was carrying his full instructional (and/or counseling) load in Foothill College. Hence, time spent in planning and coordinating, and time spent in attending lecture and discussion periods when not the teacher of record was time which otherwise would have been devoted to other duties. The actual contact hours per week are estimated to have averaged about 6½ per instructor, plus one hour per week planning and coordinating with the other instructors. This breaks down by instructor as follows:
Despite appearances, one should not conclude that the number of instructor hours required was trippled. Preparation, homework grading, and test grading times were presumably not increased over other sections in the same courses. It would be more valid to conclude merely that 20 instructor hours per week were required beyond what would have been required to teach these four courses conventionally.

THE STUDENTS

It had been planned that the students placed in this project would be from the very lowest achievers entering Foothill. This proved to be impracticable. Instead, the project students came from among those students entering Foothill College at the beginning of the Spring, 1968 semester which the counseling system identified in the ordinary course of business as needing remedial work in English composition and reading. The Counselors gave such students, whose personal situation permitted their being scheduled from 11:00 to 1:00 five days a week, the opportunity to volunteer for this project. Thus the project students can be described as incoming remedial students who volunteered for special remedial work.

The project started with 30 students (excluding "no-shows"). Only four were female. The median age was 21 years. Four had not graduated from high school. Among those who had, the median high school grade point average was 1.62 (low C-). In ability as measured by a standardized text* the median student ranked at the 21st percentile in English and at the 15th percentile

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* ACT
in general ability (Composite Score) when compared to other West Coast junior college students.

Only one student scored above the 50th percentile in English and one student scored above the 50th percentile in general ability. No student scored above the 50th percentile in both English and general ability. On the other hand nine students scored at or below the 8th percentile in English; twelve at or below the 8th percentile in general ability including seven who scored at or below the 8th percentile in both categories.

When tested on the Guilford-Zimmerman Temperament Survey, the class tended to score high on scales characterized by the descriptive terms inactivity and slowness, shyness and exclusiveness, and particularly high on criticalness and intolerance. The males, constituting the bulk of the class, tended to score toward the feminine end of the masculinity-femininity scale. Although the females scored toward the masculine end of this scale, there were two few (%) females to permit generalization.

On the Lorge-Thorndike Non-Verbal I.Q. Test, the project students showed a median I.Q. of 101 but scores ranged over 57 I.Q. points, from a low of 67 to a high of 124. Eight of the students posted I.Q's of 90 or below; six posted I.Q's of 110 or above.

Two diagnostic tests were administered in the reading area. The Nelson-Denny Test yields a score in percentiles against a national norm in Vocabulary and in Comprehension. On this test, the median project student scored at the 26th percentile in Vocabulary and the 21st percentile in Comprehension. The high score in vocabulary was at the 75th percentile, the low (two students) at the 3rd; the high in Comprehension was at the 90th percentile, the low at the 4th.

The second reading test, the California Phonics Survey, places students in four groups. Twenty-eight of the project students were given this test:
<table>
<thead>
<tr>
<th>No.</th>
<th>%</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>7.14</td>
<td>Adequate Phonics</td>
</tr>
<tr>
<td>15</td>
<td>53.57</td>
<td>Enough difficulty to show up in spelling and perhaps to decrease speed of reading comprehension.</td>
</tr>
<tr>
<td>8</td>
<td>28.57</td>
<td>Serious phonic difficulty. A real handicap to reading, spelling and written work.</td>
</tr>
<tr>
<td>3</td>
<td>10.71</td>
<td>Gross phonic disability. The student is handicapped to the extent that the prognosis for success in high school and college is very poor.</td>
</tr>
</tbody>
</table>

There was not a high degree of correlation among variables. For example, the correlation between the Vocabulary score on the Nelson-Denny Test and the California Phonics Inventory was -.467. This indicates the variables were interdependent, but not highly so. The student scoring lowest in the group on both measures of the Nelson-Denny also showed a gross phonic disability on the Cal. Phonics, but his I.Q. was 101 (the median). One might suspect that this student must learn to read before he can learn to write a paragraph. Another student scored highest in the group on both measures of the Nelson-Denny Test but posted an I.Q. of 93 and showed serious phonic difficulty on the Cal. Phonics Survey. A third student scored significantly below the median on both measures of the Nelson-Denny but more than a standard deviation above on the Cal. Phonics and posted an I.Q. of 112. In short, the students showed a wide variety of individual needs on an equally wide variety of individual capabilities. *

**THE PROBLEM OF MEASUREMENT**

As has been noted, the objective was to improve the capability of the poorly prepared student to do college level work. To achieve this objective a two-fold attack was made by the team of instructors:

* This coincides with the findings of the study of Mr. Gerald D. Kohs on students in remedial English studied in previous semesters and reported to the Board of Trustees on May 6, 1968.
1. The improvement of the ability of the student to communicate clearly in English. This includes the ability to read and understand what has been read; to understand the structure and use of the word, sentence, and paragraph; and to be able to write coherent and expressive paragraphs.

2. The improvement of the ability of the student to participate effectively in a college class. This involves the ability to study effectively, to outline, to take notes, to participate effectively in class discussion—in dialogue with the instructor, to use the dictionary and the library, to organize school work effectively, and finally, to seek meaningful insights, transferable to life outside the classroom, from the material studied.

The problem of obtaining meaningful measurements of the extent to which these objectives were being achieved on one section of students over a period of one semester was a formidable one. Nevertheless, it was determined to make such attempt, even where quantification might prove difficult if not impossible. Accordingly, several measures were decided upon:

1. The project students and both of Mr. Gallo's other English 200 sections not involved in the project were given identical tests during the week of April 8, 1968, involving the writing of test paragraphs. These papers were photocopied and the photocopies graded by Mr. Luodo of the De Anza College Faculty. Meanwhile Mr. Gallo graded the original papers, recorded the grades and returned the papers to the students. A comparison between the grades assigned the same papers by the two instructors showed a notable degree of uniformity in grading standards. The grades independently assigned several papers by the two instructors differed by less than one letter grade (e.g., A- vs. B+, C- vs. D) but in only two papers in the entire three sections was there a difference of a full letter grade in the grades assigned by the two instructors.

There was also no statistical difference among the performances of the three sections on this test.

2. During the 14th week of the semester, the Guilford-Zimmerman
Temperament Survey was readministered to the class. Twelve of the students present had been tested during the first week of the semester so that some degree of comparison was possible. On five of the ten scales, the differences were statistically significant. The students scored higher (i.e. were "less") on scales characterized by the terms impulsiveness and rhythymia, hostility and beligerence, and the males scored more feminine on the masculinity-femininility scale. The students scored lower (i.e., were "more") on scales characterized by the terms submissiveness, and shyness and seclusiveness.

(The team and the steering committee concur that only very limited and tentative conclusions can be drawn from this attempt at measurement. The Guilford-Zimmerman test is not designed as a "before and after" test. There is only one version of the instrument. Moreover, the differences noted, while statistically significant, do not appear to be psychologically significant. The change in each of the five scales is just too small. What does appear to be significant is that change seems to be taking place. This tends to be confirmed by the students in the unstructured group counseling session described below.)

3. During the 10th week of the semester, a round table, unstructured discussion was held with twenty-two of the students, the four instructors, and Dr. Keene present. The students were asked to be frank in their evaluation of themselves, the class, and the instruction. The use of a tape recorder was considered but discarded because of the likelihood of its inhibiting discussion. Notes were kept, however, of the points made during the discussion and are appended to this report as Appendix A.

4. Students who had persisted through the fifteenth week of the semester were given alternate forms of the Nelson-Denny Reading Test and of the California Phonics Survey. Among the students the following average gains were registered:
Another section of Mr. Rosenberry's English 201 students were given alternate forms of the Nelson-Denny as a control group. This control group showed a somewhat higher gain in Vocabulary and somewhat lower gain in Comprehension. The differences in average gain between the groups on neither scale were statistically significant.

Twenty of the project students completed the semester and received final grades in one or more of the courses. Eight of these twenty were permitted to withdraw on the last permissible day from English 200 with the consent of the instructor so that they might repeat the course without penalty. Four "F's" and two "D's" were assigned in Psych 53; six "D's" were assigned in English 201.

Comparisons with other sections taught by the same instructors in both English 200 and English 201 showed no significant difference in the pattern of grades assigned. The other four sections of Psych 53 each contained substantial proportions of students not classifiable as remedial, hence these sections showed grade patterns significantly different from the Project section which contained remedial students only.

Since Psychology 50 is a course in guidance, it was felt that this would be an ideal course in which to offer the student the opportunity to grade himself. This would enable us to observe student self-image, attitude toward grades and the grading system, behavior when they were not motivated (threatened) by a grade, etc. At the beginning of the course the students were told that they would grade themselves in the one course, Psychology 50. At the beginning of the last session of the course they were asked to turn in their final grade to the instructor, after which a group discussion was held regarding those self-administered grades and the reasons for arriving at them. It was interesting to note that in almost all cases the students felt their grades should be compatible with grades received in other courses. Such remarks as "I am a C student." and "I never made an A in my life and felt that just because I was giving myself a grade I couldn't do so." were
The instructor asked them to re-evaluate their behavior in the course. They decided that their attendance had been very good; they had become involved in the course to the extent that all class sessions had resulted in outstanding oral participation on the part of most and those who had said very little had felt as if they had participated more than they generally had done in other classes; class projects had been completed although they knew there would be no grades given for them. The final decision was made to make out a new grade to be turned in to the instructor. Even then the task of self evaluation appeared to be a painful task. Two students crossed out four grades before reaching a final one. One student gave himself an "A" and then left a note under the instructor's door to the effect that he had worried all evening and felt that he really was not an "A" student and had, therefore, graded himself too high. In the final analysis, students who did not give themselves an "A" were students who had not attended regularly, had not completed assigned projects, and who felt they did not "get too much out of the course" as one student stated.

The twenty students assigned themselves fourteen "A's", five "B's" and one "C" in Psych. 50.

Of the twenty students who persisted, thirteen posted grade point averages above 2.0 including six students who carried more courses than the four in the project. One of these students, carried a total of sixteen semester hours for a g.p.a. of 3.38, gaining a total of 19 grade points and removing himself from probation.

Of the twenty students who persisted, sixteen have been programmed for re-enrollment in the Fall Quarter of 1968. At the present time, the remaining four do not plan to attend college anywhere in the Fall.

**EVALUATION**

It is readily apparent that no student was placed in the project who was not in need of remedial work in English. Only two students showed an adequate command of phonics at the outset. One of these two scored at the 20th percentile in Vocabulary and at the 11th percentile in Comprehension in the reading test; the other showed a lack of preparation in English composition. The high school records of the project students showed typically
a history of poor academic performance. Yet the pattern of non-verbal I.Q. scores differed very little from that of the general population.

What we appear to have here is a group of students with disabilities and/or lack of adequate preparation in one or more areas. The data suggest that among these areas may be--

1. Lack of adequate vocabulary.
2. Lack of comprehension in reading.
3. Phonic difficulty.
4. Lack of training in English composition.
5. Lack of ability to organize study effectively.
6. Inherent lack of ability (Low I.Q.).

To this list might be added attitudinal and temperament difficulties of varying degrees of complexity.

The present approach appears to be one in which the student is identified with some degree of accuracy as needing remedial work in English. Given this identification, the student can be placed in one or more of three courses:

- English 200: English Fundamentals.
- English 201: Basic Reading Skills.
- Psych 53: Effective Study.

A brief glance at the master schedule will confirm that he is far more likely to be placed in English 200. Certainly the English 200 instructor can determine early in the term the degree to which the student is having difficulty in expressing himself orally and in writing. The English 200 instructor may be able to detect that the student has difficulty in the reading area, but he is not likely to detect the nature of this difficulty nor to be able to do much about it.

The English 201 instructor is in no better position. He must expend a minimum of three class hours administering diagnostic tests at the outset to determine where the weaknesses of his students are. If he follows the model we have followed here and settles for three categories of difficulties (Vocabulary, Comprehension, Phonics) he will sort his class into as many as seven subsections with students suffering disabilities in one, two, or all
three categories. But he has 40 or less contact hours remaining in the quarter to attack all three areas. Some students will be adequate in vocabulary, some in comprehension, some in phonics. It is true that further work in phonics will not harm the student who is already adequate in this area, but his time could better be spent in work in the area wherein lies his difficulty.

The Psych. 53 instructor is faced with an even more serious problem of heterogeneity. Psych. 53 is not a remedial course. A number of students take the course because they have been out of school for awhile (e.g., veterans); others take it to improve study skills before transferring to four year institutions. Mr. Bloesser reports that each of his four Psych. 53 sections contained significant numbers of these type of students. Thus the singling out of the remedial student for particular attention to the development of effective study skills is made difficult in a class where the goal of a substantial number of the students is the improvement of study skills which are already well developed.

There is, of course, no objective evidence that the project students did better or worse than students taking the same courses in other sections when evaluated by the usual criteria. The instructors involved have observed that despite the fact that they endeavored to correlate the courses with one another adequate time for joint planning was difficult, if not impossible, to arrange. The instructors endeavored to offset this deficiency by sitting in one another's presentations. Essentially then, the program remained the same four separate courses with the same curriculum and employing the same methodology as the regular courses. The difference was that the instructors had a broader concept of the content of the individual courses and the way they were presented. This relieved to an extent any lack of articulation marking the usual situation when the courses are taught in the conventional manner. Nevertheless, the project students did not do better work, did not make significantly greater gains in ability to handle college level courses than students in the conventional sections.
It should be noted here that these results parallel the recently completed work of Dr. Kenneth N. Griffin at Foothill College on the effectiveness of the summer program of orientation, study skills, and reading to improve the ability of the incoming student to handle college level courses. Dr. Griffin recommended: "specific packaging of courses offered in the pilot program not be continued in its present form", review of the nature of the program, continuation of similar studies, and the use of larger samples in future research.

CONCLUSIONS

Although the program failed to produce results measurably different than those produced by conventional programs, neither did it represent a sufficiently wide departure from conventional teaching to be labeled innovative. The experience has nevertheless brought into focus and emphasized a number of factors which must be considered in fashioning an innovative program if it is to achieve success:

1. There appears to be little difficulty in identifying the student who needs remedial work.
2. There also appears to be an overwhelming need to diagnose beyond this mere identification. There are a number of identifiable components of "needing remedial work in English." The identification of these components, diagnosis, must be accomplished before remedial treatment, aimed at the specific component(s) can be applied.
3. Placing a number of students, twenty-five to thirty, in a remedial section and then administering diagnostic tests, expecting the instructor to administer the various treatments indicated in the remaining contact hours in the quarter is both an inefficient allocation of scarce resources and frustrating to instructor and student alike.
4. Thorough, comprehensive planning in depth and breadth prior to implementing the program must be provided for any program which

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1 Kenneth L. Griffin, "The Effect of a Summer Program of Orientation, Effective Study, and Reading on Persistence, and Grade Point Average of First Year Junior College Student." Unpublished dissertation, Oregon State University.
professes to come to grips relistically with problems as diverse and complex as those posed by the junior college remedial student. Such a program cannot be haywired together in one or two hours of casual effort. If it could be, successful remedial programs would have proliferated throughout the junior colleges and secondary schools decades ago.

RECOMMENDATION

If the Foothill Junior College District is to expand its programs to provide wider opportunity for the disadvantaged student or potential student, the effective teaching of reading, composition, and study skills must occupy a very high position on the priority list. Accordingly, it is recommended that the four instructors involved in the Project be recalled to the campus in the Fall of 1968 a minimum of three weeks early to develop a program for the Fall Quarter which would

a. Provide for testing and diagnosing of the students' skills and lack of skills.

b. Meet, insofar as is practicable within the allotted number of contact hours, the needs of the individual students.

c. Develop an internal organization structure which would maximize the effectiveness of each instructor within the program.

d. Provide for continuous counseling and evaluation of the progress of the student.

To achieve these objectives it will be necessary to examine and evaluate testing instruments, to locate and examine individualized multi-level materials for instructional purposes, to plan very specific organizational practices suitable to the kinds of instructional materials used, and to integrate the counseling and evaluation process so that it becomes a continuous and integral part of the program. Three weeks of concentrated, hard work before the beginning of the quarter may be enough. Certainly, it could not be done in less time.
Memorandum for the record

From: Dr. Keene

Subject: Student comments in Language Skills Experimental Class, April 3, 1968

At the regular Psych 50 session of the class at 11:00 a.m., April 3, 1968 a round table, unstructured discussion was held with 22 students, 4 instructors and Dr. Keene present. The students were asked to be frank in their evaluation of themselves, the class, and the instruction. I made notes throughout the session of an hour and twenty minutes. I was able to get some of the key student comments verbatim; these I have set off in quotation marks:

Mr. Gallo's course is more valuable.

Mr. Bloesser's is helpful also.

Mr. Rosenberry's class is not as useful, but is a stepping-stone to Mr. Gallo's.

Integration among the subjects has been helpful. Is not more integration possible?

"Can we expect to come back here in two years and find more courses taught like this?"

Permissiveness is seen as helpful. Permissiveness and having sections with the same classmates has helped personal relationships.

Permissiveness carried initially an element of confusion, as did lack of a repetitive schedule. This confusion is seen as diminishing.

Lack of structure has sometimes been confusing.

("This has been described as a sandbox." - Mrs. Desper)

"What's wrong with a sandbox?"

Consensus expressed on the value of integration.

Some of the study skills (Mr. Bloesser's course) have carried over to other classes, but this has not been universal.

Appendix A
Memorandum by Dr. Keene
Re: Language Skills Experimental Class
Page Two

Environment has been helpful to a student who has felt in the past she was shy and "dumb".

"When you're not treated like a number, you can communicate."

Not checking the roll is important to students; gives them a sense of responsibility.

(At this point, in response to a question as to why more of this type of instruction was not offered, Dr. Keene explained the circumstances of the experiment and the increased cost of such methods in terms of staff time and money.)

"After what we've heard today about the experiment and about finances, we should all feel obligated to do our work, at least get in our assignments."

(At this point, Mr. Rosenberry announced the possibility of Foothill's installing a study skills center with reading improvement materials available and an instructor or laboratory assistant present for extended periods of time so that a student could not only use the center as a laboratory on a scheduled basis, but could take advantage of its facilities on his own time.)

There was unanimity on willingness to use a study skills center approach on the basis of 2 hours lecture and 1 hour laboratory.

A majority would like this approach on the basis of 1 hour lecture and 2 hours laboratory.

There is difficulty in relating the "word analysis" approach to real improvement in reading.

"Could we learn more spelling?"

Spelling is seen as a vocabulary builder.

The value of phonetics to spelling skill is seriously questioned.

Phonetics is seen as an aid to understanding and as a vocabulary builder.

Appendix A