The relationship between students and their college/university environment is a mutually interdependent one; the degree of student activity or passivity in this orientation can be determined only by considering the student in the context of his particular environment. This study involves 138 college students in an experimental group who have taken student-initiated courses through the Committee for Participant Education (CPE) and 159 Control group student enrolled at the University of California, Berkeley. The data suggests four orientations in which the groups are differentiated: (1) CPE students are less concerned with vocational and professional training, (2) they are more concerned with affecting social change, (3) they are more aesthetically oriented, and (4) they are more concerned with interpersonal relationships. The two groups differ regarding their perceptions of what the function of the University is and should be. The CPE group tends toward changing the environment, rather than their own orientation. Further research should try to discover whether students learn more when actively involved in curricular change. (AE)
PARTICIPATORY EDUCATION: INVOLVED STUDENTS TAKE THE INITIATIVE

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INTRODUCTION

Theory

What is the nature of the relationship of students to their college/university environment? Are they passive agents, or are they active agents? I would assert that the answer to this question is, "they are both". Students and their college/university environment are mutually interdependent. That is, if we are concerned with how and why students change, we must be concerned not only with the ways in which the environment "causes" the student to change, but also the changes which the individual student affects in his environment. Yet, educational research and practices have often been based on the implicit assumption that students are passive. To be sure, some students are much more passive than others; however, I shall attempt to show that the degree of a given student's "passiveness" (or "activeness") can be "determined" only by considering the student in the context of his particular environment. In order to gain insight into the above issues, students taking student-initiated courses at the University of California, Berkeley will be compared with a sample of their undergraduate peers (at Berkeley). Although the data collected in conjunction with this study are intrinsically interesting, the primary purpose of this paper is to demonstrate, by use of this specific example,

the importance and implications of the theoretical orientation proposed above.

**Student-Initiated Courses**

There are several ways in which courses have been initiated by a student or group of students at Berkeley. Such courses have been approved by the Board of Educational Development (a faculty committee authorized to grant credit and/or funds for experimental and ad hoc courses and programs) and by some of the academic departments as "special" courses. Also, the students in some "courses" have obtained independent study credit from "sympathetic" faculty members. A few courses are given for no credit.

Students who desire to initiate courses usually obtain the assistance of the student Committee for Participant Education (CPE).²

CPE courses tend to differ more from the regular curricula in their subject-matter emphases, than in their "structure" and instructional techniques.³

**RESEARCH METHODOLOGY**

The questionnaire which was used in this study contains about 200 items. Several kinds of variables were considered: the student's experiences and activities; personality and background characteristics; aspirations and needs; the nature and degree of the student's satisfactions; perceptions of the environment; and reasons for deciding whether or not to take a CPE course.⁴

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²Students taking student-initiated courses shall be referred to as CPE students, in the remainder of the paper.


⁴The questionnaire contained abbreviated versions of three scales.
The experimental group consists of the students in 34 of the 44 sections of CPE courses offered during the Spring quarter, 1968. Twelve graduates and 138 undergraduates returned their questionnaires—a 37% response (however, only the data on the undergraduates were analyzed).  

The control group is a random sample of 196 undergraduates who were enrolled in the Fall quarter, 1967 and who were either living in Berkeley or enrolled during the Spring quarter, 1968. Initially, 55 percent of the control group responded. Ten out of seventeen students in a sub-sample of non-respondents subsequently answered the questionnaire; these responses were "weighted" five times for data analysis (since the sub-sample was 20 percent of the total group of non-respondents). Therefore, the "equivalent" of 159 students in the control group responded.

**DISCUSSION OF RESULTS**

Now, we shall examine the attitudes, goals, and behavior of CPE students and Berkeley undergraduates (and therefore, what they see as "desirable" relationships with the environment). These implied relationships will then be compared with the institutional "definitions" of the student's relationship with the environment. In this way, the above proposed theoretical orientation, which emphasizes the mutually interdependent relationships between the student and his environment (and its particular 

of the Omnibus Personality Inventory (OPI)—Autonomy, Thinking Introversion, and Social Extroversion. With this exception the conduct of the research, including the construction of the questionnaire, was by James Bess and John Bilorusky.

5Informal interviews with some of the CPE students led me to the conclusion that non-responding CPE students were similar to their peers (who answered the questionnaire)—only somewhat more different from the control group. Therefore, the differences found between the experimental and control group are probably somewhat larger than indicated by the data.
aspects, such as the curriculum), may be clarified.

Four "orientations" seem to differentiate CPE students from the control group with respect to their goals, needs, and dispositions, and therefore, their views of what constitutes a "desirable" relationship with the environment. CPE students are less vocationally oriented, more oriented toward affecting social change, more aesthetic, and more interpersonally oriented. We shall now consider some of the data which suggest these differences in orientation.

CPE students tend not to see "professional and vocational training" as an important educational goal, when compared with the control group.6 Even though CPE students have higher grade-point averages, they are less likely to belong to professional or academic societies, and spend less time studying. When the subgroups of men and women were analyzed separately, it was found that these differences in "vocational orientation" were most pronounced among the men (although the above differences are usually significant among the women, also). In addition, only 16% of the CPE men come from lower-class families (as determined by father's occupation) as compared with 37% of the men in the control group. It is probably safe to say that CPE men are much less likely to see their education as a means to achieving upward social mobility through diligent preparation for some profession.

While CPE students are less concerned with vocational preparation, they are more concerned with bringing about social change and/or reform.

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6 In noting the differences between the control and experimental group in the following discussion, one asterisk (*) will mean "significant beyond the .05 level", two (**) will mean "beyond the .01 level", three (***) will mean "beyond the .001 level". If no asterisks appear, the difference is significant beyond the .10 level and often close to the .05 level.
In answer to a series of questions asking them to classify themselves politically, CPE students place themselves to the left of the control group***. For example, 68% of the CPE students believe they are at least as liberal or radical as Peace and Freedom Party members, whereas only 15% of the control group put themselves in this category. CPE students are also more active politically; for example, they spend more time in political and social action activities***. Moreover, 19% of the CPE students say they organize reform activities, as compared with 8% of the control group***. Similarly, CPE students were much more active supporters of the Stop the Draft Weeks in October 1967 and April 1968***. Even more interesting is the fact that while participation by control group members in STDW activities declined from 22% to 11% over the 6 month period, participation by CPE students only declined from 41% to 36%. The "hard core" activists seem to be well-represented in the group of CPE students.

However, CPE students show their concern with social issues in other, less political ways. They are more likely to major in the social sciences***; and indeed, 53% of the CPE students and only 21% of the control group have taken over 30% of their courses in the social sciences***. They also spend more time in community service activities, and 17% of them as compared with 6% of the control group spend at least one hour/week in educational reform activities.

Furthermore, CPE students are more aesthetically concerned. They tend to take more courses in the fine arts* and humanities*. Forty-seven percent of them spend more than four hours/week participating in artistic activities (including 17% who spend more than 10 hours), as compared with 31% of the control group**. It is not surprising then that more CPE students than other Berkeley undergraduates say that their educational goal of aesthetic growth
has been largely fulfilled**.

Finally, there is some tentative evidence that CPE students are more interpersonally oriented. For example, they spend more time on dating and social life**. Moreover, 62% of the CPE students, as compared to 70% of the control group, see the "opportunity to interact with a variety of individuals" as a very important goal.

These orientations can be compared with the institutional "definitions" of the student's relationship with the environment. For example, it is clear that the undergraduate curriculum is primarily oriented to the function of vocational and professional training. This usually results in a greater emphasis on the ritual of certification than on "education" (that is, some kind of personal change). Moreover, when the concern is with some kind of education, it is unlikely to be related to social change, aesthetic growth, and interpersonal relations. It is not surprising, therefore, that CPE students express very great dissatisfaction with their education. This dissatisfaction may be seen as a consequence of an "incongruity" between the goals and needs of CPE students (i.e. their "desired" relationships with the environment) and the "orientations" of one prominent aspect of their environment (i.e. the curriculum).

Much of the data supports the above hypotheses regarding the nature of dissatisfaction. CPE students, more than the control group, believe that their education is neither challenging nor important to their lives, and they express dissatisfaction with those aspects of the curriculum which are related to the certification process (see table 1).

Further dissatisfaction is shown by the greater discrepancies between what CPE students say the functions of the university should be and what they perceive them as being. While both groups agree (to about the same degree) that teaching should be an important function, the CPE students perceive it
to be more de-emphasized in actual practice** (particularly in relation to research). By far the greatest discrepancy, however, is seen with respect to their views about the social change (not public service) function of the university. More than the control group, CPE students believe this should be an important function***; but also more than the control group, they do not perceive social change to be institutionally defined as a significant function.

The above discussion regarding the dissatisfactions of CPE students is supported and amplified by an analysis of the experimental and control groups according to the student's sex and year in school ("class"). First, the men in the control group are by far the most vocational and least political, social, and independent of the four groups. The upper-classmen in this group indicate that they are relatively satisfied with their education and their own personal development. It would appear that they have successfully "adjusted" to the system. This adjustment was undoubtedly facilitated by the "congruence" of their personality and educational goals (i.e. "desired" relationships with the educational environment) with the basic orientation of the undergraduate curriculum. It is not surprising then that a very substantial percentage of these upper-class men say that they have yet to take a CPE course because "Other regular offerings were satisfactory". The lower-class men, on the other hand, are still trying to "make it" in the system--

7The data analyses on which this discussion is based involved considering the correlations of the responses of each of four groups (control men, CPE men, control women, CPE women) to a variety of items in the questionnaire, with the variable, "class" (i.e. year in school). The following discussion is based only on differences between the groups which are significant beyond the .05 level. It should be added that the following discussion of differences between classes is quite speculative since the study is cross-sectional, not longitudinal. However, the trends seem reasonable in light of the findings reported above, and moreover, the results from the analysis of the responses to a variety of items appear to be consistent.
that is, given their general tendency to accept the orientations of the curriculum, they are concerned with succeeding (e.g. making good grades) in their new environment. Therefore, they are more likely to say that they don't have the time to take a CPE course, or that they are not aware that these courses are being offered.

The women in the control group do not seem to adjust to the environment, but instead, are changed by it. So, for example, the upper-class women have a much stronger vocational orientation than the younger women. Also, in a way similar to their male peers, they are more satisfied with their education and personal development. However, they are somewhat more aesthetic and socially concerned.

On the other hand, upper-and lower-class CPE men are quite similar. It appears that the selection of a CPE course "means" about the same thing for a lower-class man as an upper-class man. However, upper-class CPE women are much less oriented to both vocational and family roles than the younger CPE women. While they tend to be relatively autonomous, they say they "worry about being different" (and indeed they are different) and question the degree to which they have asserted their independence from their parents. They express great dissatisfaction with their education and are concerned about the "uncertainty of the present". Their primary reason for taking a CPE course is "Wanted a course suited to my individual needs". I would speculate that upper-class CPE women have strongly resisted the pressures (of the curriculum) to become vocationally oriented; however, they have also rejected the more traditional roles of women in our society. As a result, they have become very alienated from their social surroundings and anxious about their personal development. They see CPE courses as being flexible enough to provide them with the opportunity to create an environment,
which will have orientations that are more congruent with their special goals and needs.

The above interpretations of this data and some recent studies of student development (e.g. Newcomb and Feldman, 1968; Newcomb et. al., 1967; Heist, 1968; Keniston, 1968) suggest the following hypothesis. As the degree of "incongruity" between the "orientations" of the student and his environment increases beyond a certain level, the student will become more dissatisfied. The student will then tend to respond in one or more of the following ways (in order to reduce the "incongruity"): he may change his orientation (a "passive" response); he may change his environment, or select or create a "new" environment ("active" responses). For example, CPE students seem to have responded in a relatively active way to their situation. Some of the CPE students have changed their environment by initiating courses. On the other hand, those who have merely enrolled in the CPE courses have selected partially "new" environments. The collective results of both of these actions is the creation of a "new" sub-environment within the University.

Moreover, this interpretation is supported by the reasons CPE students give for taking these courses (see Table 2). Four reasons are rated much more important than the other eleven. "Subject-matter" of the courses is the most important reason. This reflects the interest with CPE students have in social change (e.g. as expressed in the selection of courses like "Non-Violence and Revolutionary Change"), aesthetic activities (e.g. the selection of courses like "Film Production"), and interpersonal relations (e.g. participating in an encounter group for "no credit"). The second and third most important reasons are "wanted a course suited to my individual needs" and "wanted a course relevant to 'everyday life'". It appears that CPE students are aware that they are searching for courses which are more
"congruent" with their goals and needs. Moreover, these reasons indicate that CPE students evaluate their education in terms of its immediate consequences for their personal development and social change, rather than its future significance. The fourth reason for the selection of a CPE course may be related to CPE students' concern with interpersonal relations and/or their tendency to take an active role in their education—they want the "opportunity to discuss ideas".

However, we should ask, why do CPE students tend to change the orientation of the environment, rather than their own orientation? How is it that they do not reduce their incongruence with the curriculum by adjusting to its vocational orientation? The answers seem to be that CPE students are highly autonomous and independent. On an abbreviated version of the Autonomy scale (15 items) of the OPI, CPE students answer each item in the "autonomous direction" 89% of the time, the students in the control group do so only 76% of the time*** (which is, nevertheless, a considerable higher percentage than would be found among the students at most colleges). Furthermore, CPE students manifest this independence in a variety of aspects of their behavior. They are more likely to have taken independent study courses in the past**, and to be doing so at present***. They tend not to live in the most "structured" and "restrictive" types of housing (fraternities, sororities, and dormitories) nor with their relatives, but rather in private residences (e.g. apartments) and co-ops***. Finally, only 17% of our control group contribute more than 50% to their financial support, as compared with 31% of the CPE students. Therefore, I would suggest that the autonomy of CPE students enables them to perceive a wide variety of alternative environments and to make a relatively active response to their "unsatisfactory" situation.
However, the students in the control group give reasons for not taking CPE courses which indicate that they are relatively satisfied with their curricular environment and/or are unable to perceive alternatives (see table 3). Four reasons appear most important. They say they don't have enough time; that they are unaware of the courses; that regular offerings are satisfactory; and that they have too many requirements to take. The students in the control group have relatively "congruent" relationships with their curricular environment; and if, at one time, they had more "incongruent" relationships with the curriculum, they have passively adapted to the educational system, since then, by accepting its role-demands. Nevertheless, it should be stressed that each student will (to some degree) play an active role in changing the curriculum. He will select many of his courses; he may change his major, decide to transfer or dropout. Moreover, when he is in a class where the professor expects him to play an active role in the learning process, he may attempt to redefine the situation. If the professor assigns a particular book, and if, for any "reason", the student decides not to read that book, the student has "changed" (for himself at least) the curriculum. In all of these ways and more, students play an important and active role in bringing about curricular "change".

CONCLUSIONS AND RECOMMENDATIONS

In this paper, I have attempted to demonstrate a research approach to the study of student experiences during college, which is based on an examination of the relationships between the student and his environment. Such relationships (or orientations) characterize both the student and the college environment. It was hypothesized that the relationships will change if their "incongruence" is large enough. The student will be an active agent (to varying degrees) during the process of this change. This
theoretical orientation may be useful in future research on college students/environments.

This study also has some important implications for faculty and student personnel staff. Students constantly (although often subtly) play an important role in curricular change; therefore, in planning curricular experiences for students, educators must try to anticipate the diversity of student responses to the curriculum. Moreover, education should be individualized—a number of environmental (e.g., curricular) alternatives must be provided to challenge the diversity of students. The environment should be sufficiently flexible to permit (and indeed, encourage) the student to have a variety of experiences.

However, the above recommendations assume that students are more inclined to take an active role in their education than many of the Berkeley undergraduates. Therefore, we must help students reach the point where they will want to be active participants in their education. This goal becomes all the more imperative if the alternative is to have students adapt to a certification system which has little to do with education. It is indeed ironic that some educators are reluctant to give Third World students "self-determination" in the planning of their curricula, or to permit students, in general, to be involved in planning their education, even when they care enough to demand it. Future research should try to determine whether or not students learn more when they have been given the freedom to plan and select major portions of their curricula. We may find that our main task is not to "restrain" students "like" the ones taking CPE courses, but rather to help students to develop the desire to become actively involved with their education.
Table 1

Statements Indicating That CPE Students Are More Dissatisfied with the Curriculum

A. CPE students, more than the Control group, agree that

1. "The bases for evaluating my academic progress are unclear and inconsistent."
2. "Some of the best students drop out because they do not want to 'play the game' or 'beat the system.'"***
3. "Most of my kicks come in activities not connected with school."
4. "Education at Berkeley is considered by the University more as a means to future goals rather than an end in itself."**
5. "The grading system at Berkeley doesn't accurately measure academic achievement."***
6. "University academic programs are unrelated to the central problems of my life."*

B. CPE students, more than the control group, disagree that

1. "I find the competition at Berkeley intense."
2. "Rules which provide guides for my academic and non-academic activities are clear and consistent."***
3. "I find my studies for the most part challenging, stimulating, and rewarding."
4. "The University leaves to me the responsibilities for the design of my educational experience."*
5. "Students who receive good grades are accorded high status by most other students."

*** Significant at .001 level
** Significant at .01 level
* Significant at .05 level

Statements not asterisked are significant at the .10 level.
Table 2

Reasons for Taking CPE Courses

In deciding to take a CPE course for the first time, to what degree did each of the following make you decide to take a CPE course? (% responding in each category among a group of 138 undergraduates.)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Reason</th>
<th>Most Important</th>
<th>Very Important</th>
<th>Important</th>
<th>Not Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Subject matter interested me</td>
<td>56.6</td>
<td>31.8</td>
<td>8.5</td>
<td>3.1</td>
</tr>
<tr>
<td>2</td>
<td>Wanted a course suited to my individual needs</td>
<td>38.3</td>
<td>33.6</td>
<td>18.7</td>
<td>9.4</td>
</tr>
<tr>
<td>3</td>
<td>Wanted a course relevant to &quot;everyday life&quot;</td>
<td>31.2</td>
<td>30.5</td>
<td>26.6</td>
<td>11.7</td>
</tr>
<tr>
<td>4</td>
<td>Opportunity to discuss ideas</td>
<td>27.1</td>
<td>26.4</td>
<td>20.9</td>
<td>25.6</td>
</tr>
<tr>
<td>5</td>
<td>Curiosity</td>
<td>12.4</td>
<td>17.1</td>
<td>44.2</td>
<td>26.4</td>
</tr>
<tr>
<td>6</td>
<td>Sounded challenging</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Small size of class</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Not offered by &quot;establishment&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Opportunity to meet new people</td>
<td>6.2</td>
<td>19.4</td>
<td>27.1</td>
<td>47.3</td>
</tr>
<tr>
<td>10</td>
<td>Opportunity to interact with faculty as an equal</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Opportunity to share in setting up course structure</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>To avoid the pressure of grades</td>
<td>0.0</td>
<td>8.5</td>
<td>27.7</td>
<td>63.8</td>
</tr>
<tr>
<td>13</td>
<td>Some friends had taken a CPE course before and recommended it</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Less work/credit hour</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Some friends taking the class</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 3
Reasons for Not Taking CPE Courses

For students who have not taken and are not now taking a CPE course only: which of the following were important reasons for your not enrolling in a CPE course? (% responding in each category among a group of 196 undergraduates.)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Reason</th>
<th>Most Important</th>
<th>Very Important</th>
<th>Important</th>
<th>Not Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No time</td>
<td>26.6</td>
<td>26.6</td>
<td>13.7</td>
<td>33.1</td>
</tr>
<tr>
<td>2</td>
<td>Did not know course was being offered</td>
<td>25.0</td>
<td>22.6</td>
<td>16.1</td>
<td>36.3</td>
</tr>
<tr>
<td>3</td>
<td>Other regular offerings were satisfactory</td>
<td>20.3</td>
<td>12.2</td>
<td>34.1</td>
<td>33.3</td>
</tr>
<tr>
<td>4</td>
<td>Requirements to fulfill, etc.</td>
<td>15.0</td>
<td>2.0</td>
<td>2.0</td>
<td>81.0</td>
</tr>
<tr>
<td>5</td>
<td>Not clear what requirements were</td>
<td>4.8</td>
<td>4.0</td>
<td>18.4</td>
<td>72.8</td>
</tr>
<tr>
<td>6</td>
<td>Subject matter did not interest me</td>
<td>4.8</td>
<td>4.0</td>
<td>18.4</td>
<td>72.8</td>
</tr>
<tr>
<td>7</td>
<td>Suspicious of quality</td>
<td>4.8</td>
<td>4.0</td>
<td>18.4</td>
<td>72.8</td>
</tr>
<tr>
<td>8</td>
<td>Waiting for reports of others</td>
<td>4.8</td>
<td>4.0</td>
<td>18.4</td>
<td>72.8</td>
</tr>
<tr>
<td>9</td>
<td>Did not want to try it alone</td>
<td>4.8</td>
<td>4.0</td>
<td>18.4</td>
<td>72.8</td>
</tr>
<tr>
<td>10</td>
<td>Didn't sound challenging</td>
<td>4.8</td>
<td>4.0</td>
<td>18.4</td>
<td>72.8</td>
</tr>
<tr>
<td>11</td>
<td>Did not think I would like classmates</td>
<td>4.8</td>
<td>4.0</td>
<td>18.4</td>
<td>72.8</td>
</tr>
</tbody>
</table>