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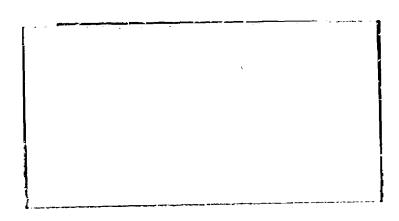
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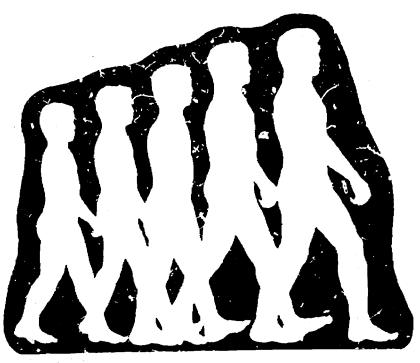
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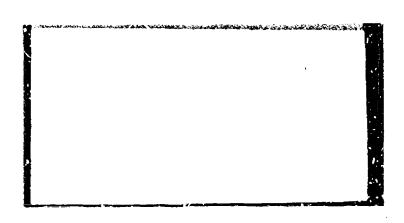
\BSTRACT

Prior to their attendance at a summer orientation program, 339 students were pailed their own student profile, materials for its interpretation, and information on factors important in academic choices. A control group of 321 students received no mailed materials. Both groups subsequently participated in a standard orientation program, in which the same topics were discussed. Results indicate that students who received the mailed materials more frequently reported that they might change their major than did the controls; however, no actual differences between groups were noted in the number of major changes, the time major changes occurred, or fall term GPA. It is concluded that material mailed to students to heighten the effects of orientation programs may be of questionable value if the same content is adequately covered at the orientation program itself. (Author/TL)

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Effects of Pre-PREVIEW Information Mailings on Academic Choices and Performance

Richard G. Weigel and Thomas T. Smith

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Abstract

Prior to their attendance at a summer orientation program, 339 students were mailed their own student profile, materials for its interpretation, and information on factors important in academic choices. A control group of 321 students received no mailed materials. Both groups subsequently participated in a standard orientation program (PREVIEW CSU), in which the same topics were discussed. More students receiving the mailed materials reported that they might change their majors than did those not receiving the materials, however no actual differences between groups were noted in number of major changes during the first two terms of college, the time major changes occurred, or fall term GPA. The results suggest that materials mailed to students to heighten the effects of orientation programs may be of questionable value if the same content is adequately covered at the orientation program itself.

A paper presented at the Rocky Mountain Psychological Association, Denver, 1971. This study was supported by funds from the Office of Summer Sessions and the Office of Student Development Studies and Programs, Colorado State University. Thanks are due to B. R. Oetting for his consultation, the staff of PREVIEW CSU 1970 for their assistance in the data collection, and to Dorothea H. Bellinger, Glen R. Holtinger, and Margaret M. Fonte for processing the data. Appreciation is also expressed to the Office of Academic Advising, O fice of Student Relations, and Office of the Registrar for their cooperation.



Since its inception, there have been a number of studies performed to evaluate the summer orientation program at Colorado State University.

Aspects of PREVIEW CSU have been investigated by Ivey and Miller, 1953;

Schoemer, 1966; Cole and Ivey, 1966; Ivey and Miller, 1967; Donk and Oetting, 1967; Hurst and Schoemer, 1969; Eurst and Smith, 1969; and Donk and Hinkle, 1971. On the whole, these studies have indicated that PREVIEW has had beneficial effects for the students and parents participating, and has provided valuable public relations for the university.

An integral part of PREVIEW presentations in recent years has been a session devoted to discussion of university and departmental academic standards, and the students' own profile of potential success in various majors (based on S.T. scores and high school rank). This session was developed in an attempt to facilitate thoughtful initial academic decisions, in particular, choice of initial major. Nevertheless, there is reason to doubt whether the procedure of providing such information during the same day a student must choose his major allows sufficient time for such important information to be both digested and discussed by the student and his family before a decision must be reached.

Other institutions, such as the University of Illinois (Gilbert and Ewing, 1963), have found that the mailing to students of personally relevant materials pertaining to their academic and career choices can be a particularly fruitful technique for coping with this difficulty. CSU has made little attempt to maximize the effects of mailings to entering students. Indeed, Donk and Hinkle (1971) found that 45% of students entering PREVIEW felt that the information they received before their attendance had not sufficiently informed them about the university.

The present study, therefore, was designed to evaluate if pre-PREVIEW



mailings to students of selected materials pertinent to their academic and career choices while at PREVIEW might facilitate the student's choice of a most appropriate initial major and/or his early academic career.

Method

The subjects were 670 students attending the 1970 PREVIEW CSU. Students attending PREVIEW on three target days (N = 339) served as the Experimental Group, while those attending on three other target days (N = 321) comprised the control group.

Following the procedure of Robin (1965), Experimental Group Ss were sent a letter approximately two weeks before their date of PREVIEW attendance informing them that they would shortly receive important materials pertinent to academic and career decisions to be made by them during PRE-VIEW. One week refore their PREVIEW attendance they received a packet of materials including: (1) a cover letter urging their careful attention to other enclosed mater; als, (2) their student profile, including their SAT scores, high school rank, and predictions of success in various majors, and (3) an "action program" titled "Your Academic Career at CSU: The First Step"---this 16-page paper included information for self-interpretation of the profile, information for understanding the implications of the profile for their potential success in various majors, and information on factors which should be considered in academic and career choices (the first of which is initial choice of major). Also included was a worksheet keyed-in to the "action program", which they were strongly urged to fill-out and discuss with their families before attendance at PREVIEW. This worksheet, in essence, required the student to develop an assessment of his potential for success in the major he had chosen. It is presented in Appendix A.



It was planned that the program at PREVIEW for the Experimental Group on "Discussion of Student Profiles" could be modified slightly from the standard presentation because of the prior information made available to the Ss: it was to include a possibility for a somewhat higher proportion of discussion and a somewhat lower proportion of information dissemination. Care was to be taken, however, to accommodate the fact that some Ss might have diligently filled-out their "action program" worksheet, while others might not. In point of fact, however, the program on "Discussion of Student Profiles" was not modified for the Experimental Group, for the leaders found these Ss to be in no way dissimilar to the Control Group Ss in their need for information to be disseminated to them.

At the end of the "Advising and Registration" program at PREVIEW, which came late in the day, Experimental Group Ss were asked to complete a questionnaire which included questions designed to evaluate:

- (1) how comfortable they felt about their choice of major;
- (2) how likely they felt it to be that they would change their majors by different times in their academic career;
- (3) the GPA they perceived their stude: _ profile indicating they would be most likely to achieve in their major;
- (4) the GPA they felt they really would achieve; and
- (5) the GPA they felt they were ideally capable of achieving.

In addition, further questions assessed their involvement with the mailed materials, and their effect. These items were designed to evaluate:

(a) whether they had gone through the mailed materials and filled-out the "action program";



- (b) whether they had discussed with their families the implications of the mailed materials for their academic choices and/or performance; and
- (c) whether they had changed their minds about their major as a function of mailed materials and/or as a function of PREVIEW presentations.

Control Group Ss were used for comparison purposes, and received no pre-PREVIEW mailings. They participated in the standard PREVIEW presentation on "Discussion of Student Profiles". Parallel to the Experimental Group, Control Group Ss were asked to complete a questionnaire at the end of the "Advising and Registration" program at PREVIEW. This questionnaire included the same questions as noted in #1 through #5 above, but did not include those questions assessing involvement with the mailed materials (i.e. a through c), since they had not received the mailed materials.

Records of official changes in major were kept for all <u>Ss</u>. These were recorded in the following categories: (1) before fall term, 1970, (2) during fall term, 1970, and (3) during winter term, 1970-71. The GPA earned by each <u>S</u> during the fall term, 1970, was also recorded.

Thus it was possible to examine the effects of the pre-PREVIEW mailing on the questionnaire responses, actual major changes, and fall term GPA.

Data Analyses and Results

Questionnaire data, change of major data, and GPAs were card-punched for subsequent analyses. Because of the complexity of the comparisons to be made, a variety of statistical techniques were employed. These included analysis of variance, chi-square, Student's <u>t</u>, and a test of differences between proportions.



Treatment Effects on Experimental Group

Questionnaire responses of the Experimental Group indicated that 80% of those responding found the mailed materials to be helpful to them, and that 6.8% made decisions to change their majors based upon them.

The <u>degree of attention</u> given to the materials by the Experimental Group Ss (assessed by their responses to the following choices: (a) read through them, but did not fill-out a worksheet, (b) filled-out a worksheet for one major, and (c) filled-out a worksheet for more than one major) was found to be systematically related neither to actual major changes subsequently occurring, nor to subsequent GPA. Degree of attention to ane materials was found to be related to only two questionnaire responses: those who gave most attention to the materials were more likely to feel they might change their major at some time during their freshman year (F = 3.36, p <.01), and more likely to change their major at some time during their academic career (F = 4.72, p <.01) than were those who gave less attention to the reterials.

Similarly, the degree of <u>involvement of others</u> by the <u>Ss</u> with the materials (assessed by their responses to the following choices: (a) did not discuss with enyone, (b) went over materials with parents, (c) went over materials with other family members, and (d) went over materials with someone outside the family) was found to be systematically related neither to actual major changes subsequently occurring, nor to subsequent GPA. Degree of involvement of others with the materials was found to be related to only one questionnaire response: those who involved the most other people with their mailed materials predicted a higher GPA for themselves than did those who involved no or few other people (F = 2.09, p < .05).



Comparisons of Experimental and Control Groups

Behavioral Data: No systematic difference between groups were noted in the number of Ss changing their major through the first two terms of college, nor were differences observed in the period of time at which major changes occurred. No systematic differences between the groups were noted for fall term GPA.

Questionnaire Data: Of the 16 questionnaire items responded to by both Experimental and Control Ss, differences between groups were noted on four items. Ss of the Experimental Group were more likely to feel they might change their major during the fall term (t = 2.07, df = 654, p < .025), at some time during their Ireshman year (t = 1.81, df = 654, p < .05), and at some time during their total academic career (t = 1.93, df = 655, p < .05). Experimental Group Ss predicted higher GPAs for themselves than did Control Group Ss (t = -3.88, df = 658, p < .005). No differences between groups were noted for the remaining items: deciding to change majors before attending PREVIEW; deciding to change major while at PREVIEW, attending meeting for undecided students at PREVIEW; comfort felt in decision made in chcosing major; likelihood of changing major before or on entering CSU in the fall; helpfulness of student profile; accuracy of interpreting student profile; feeling of accuracy of student profile in prediction of performance; personally ideal GPA; expectancy for CSU grades compared to high school grades; feelings that admission indicated their potential for academic success; and knowledge that motivation alone will not make one successful in any major he chooses.



Discussion

Although the Experimental Group felt the materials mailed to them to be helpful, it must be questioned whether their value was of sufficient merit to justify their use in addition to the on-campus PREVIEW orientation program.

As was noted, the Experimental Group anticipated more likelihood of their changing majors than did the Controls. Indeed, increased attention to the mailed materials in the Experimental Group appeared to lead to an increased anticipation of likelihood of change. This latter finding must be tempered, however, for it may well be that those Ss who gave most attention to the materials did so because they were unsure of their major choice to begin with.

Experimental Group Ss, however, actually changed their majors with no greater frequency than did the Controls. It had been anticipated that the mailed materials might well lead to more initial changes in the Experimental Group while at PREVIEW than the Controls (based on having had more time to assimilate the data pertinent to themselves), but that his pattern might reverse as the school year wore on. It was anticipated that Control Group Ss, who had been forced to make hurried choices, might have an even higher rate of change of major later in the year. In essence, it was felt that getting started in an appropriate major would eventually lead to fewer changes of major, and perhaps even a heightened GPA for the Experimental Group. But, as has been noted, no systematic Group differences were noted in the number of major changes, time of major changes, or GPA. Quite obviously, the data did not confirm the predictions.

It should be noted that having students change their major was not a



goal of the mailed materials (nor PREVIEW). Rather, they were designed to lead the students to examined thought about the choice of major they had to make. That the Experimental Group felt they might change their majors with a higher frequency than did the Controls may be due to the fact that the mailed materials stressed that there was no lost "face" in making a switch, although it must also be noted that this was also presented verbally at PREVIEW. At the present time, an index of major difficulty is being developed which will make it possible to re-examine these major change data in order to determine whether there might be group differences in changing toward majors more amenable to students' academic ability.

The Experimental Group Ss predicted a higher GPA for themselves than did the Controls. Indeed, involvement of a number of other people with the mailed materials in the Experimental Group appeared to lead to an increased prediction of GPA. This finding is comewhat surprising. It had been anticipated that the mailed materials might dampen the typical entering freshman's unrealistic expectation for his college performance. This was not the case. The cause of these results is open to speculation.

The overall lack of meaningful differences between groups in the anticipated direction may speak highly for the verbal presentations at PREVIEW. It seems reasonable to infer that the presentations are so cogent that the student does not need extra 'ime to assimilate the information. An alternative explanation might be that the mailed materials did not have sufficient stimulus value to alter students' behaviors. Were it possible, it would be inceresting to see if the effects of the mailed materials without PREVIEW attendance would compare favorably with those of the verbal presentations. If so, it might be reasonable to consider using the mailed materials with those students who for some reason may be unable to attend PREVIEW CSU.



Thus, although some differences were shown between groups, they do not appear to be of sufficient value to rarit the present mailed materials being used in addition to on-campus presentations. These findings may be generalized to suggest that materials mailed to students to heighten the effects of orientation programs may be of questionable value if the same content is covered at the orientation program itself.



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"Proffle Worksheet"

College:
8
He Jor:
3

- (3) Eigh School Percentile Rank ("X RANK"):
- My High School Percentile Rank places me (check one):

 Closer to the top of my CSU class ("I RANK" well above 74) $\widehat{\mathfrak{S}}$

Closer to the top of my CSU class ("% RANK" well above 74)
In the middle of my CSU class ("% RANK" close to 74)
Closer to the bottom of my CSU class ("% RANK" well below 74)

My highest grades in high school were consistently earned in the following areas: 3

(7) Muth Score: (9) Math Percen (11) My Math Per (check one) (check one) (13) I feel that
--

My Verbal Percentile Rank places me in the

(check one):

වී

Verbal Percentile Rank:

ම

Verbal Score:

9

Middle third of my CSU class Duttom third of my CSU class

Top third of my CSU class

chances in 100 of the a 2.0 and 2.99 and the first term.
cering C3U students, regardless of major, I have chances in 100 of 2.0 (C) average, chances in 100 of making between a 2.0 and 2.99 chances in 100 of making over a 3.0 (B) average during the first term.
, I have of making) average
of major s in 100 a 3.0 (B)
regardless chancemaking over
students, verage. In 100 of
iering CSU a 2.0 (C) a chances
Compared to all electing C3U students, regardless of major, I have making less than a 2.0 (C) average, chances in 100 of making average, and chances in 100 of making over a 3.0 (B) average
_
(14) (12) (16)

Is a high estimate of my ability I a low estimate of my ability

Truly represents my ability

I feel that my Verbal score (check one):

33

SAT Verbal

(17) My major is included in the following area (check one): Sciences 6 Math Social Science Bumanities Applied Arts (18)(19)(20) Compared to entering CSU students in the area of my major, I have chances in 100 of making less vian a 2.0 (C) average, chances in 100 of making over a 3.0 (B) average during the first term.	(21) My best estimate of my motivation to do well in the major I have chosen is (check one): Couldn't care less Somewhat wotivated Motivated Highly motivated Extremely motivated	(22) I would estimate my study habits to be (check one): Inefficient	(23) I estimate my first term gpa in the major I have selected to he:	The second secon
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