Class Attendance in Undergraduate Courses

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ABSTRACT. Many college instructors complain about class attendance, but few data have been gathered on when and why students miss class. In this study, I examined class attendance in 17 sections of undergraduate psychology classes and found that class attendance decreased from the beginning to the end of the semester and that attendance displayed moderate correlations with course grades. I also found that students missed classes most frequently because of the time needed to complete other course work, because the classes were boring, because of illness, and because classes interfered with their social life. Finally, I have attempted to explain attendance behavior in terms of self-regulatory theory.

AS RESEARCHERS ATTEMPT to find ways to revitalize educational practices in the United States, they have become increasing interested in student self-regulatory behaviors. For many years educators have recognized that the most effective students have often been those who regulated their own learning. For example, Lepper and his associates demonstrated that, for young children, intrinsic motivation was the most enduring form of motivation (Greene & Lepper, 1974; Lepper, Greene, & Nisbett, 1973). Research in this area has taken various forms, including studies of self-efficacy (Bandura, 1977, 1982), metacognition (Flavell, 1979), and more recently, an integrated version of the two, called self-regulated learning (Schunk, 1984, 1991; Zimmerman, 1989, 1990; Zimmerman & Schunk, 1989).

The basic premise of self-regulated learning is that students often are able and required to exercise control over learning activities, and as they develop, they will take more and more control over their own learning. The learning environment is less rigidly structured, particularly in college, where instructors expect students to take charge of their own learning because much of it continues outside the classroom. However, researchers have not explored self-regulated behaviors among college students to any extent.

One learning behavior that college students are often able to control is classroom attendance, but there have been only a few studies of this behavior and the factors likely to affect it. Baum and Youngblood (1975) examined attendance in a multiple-section undergraduate accounting course. When attendance was compulsory, they found average daily attendance was 82%; when attendance was not compulsory, average daily attendance was reduced to 76%.

Hovell, Williams, and Semb (1979) examined attendance in three sections of a child development class. In one section, students were given weekly quizzes, and average daily attendance was 81%. In a second section, students were able to review weekly quizzes taken by other students during a previous semester; average daily attendance was 77%. Finally, students in a third section, who neither took nor reviewed quizzes, had only a 59% average daily attendance.

Beaulieu (1984) also examined attendance in three sections of an undergraduate course on personnel management. Attendance was encouraged either with the use of bonus points or small prizes. On days that attendance was taken, mean attendance rates ranged from a low of 70.28% to a high of 79.66%.

These studies suggest that some classroom procedures, especially those emphasizing extrinsic rewards, are most effective in increasing attendance. However, they still tell us little about why students miss class. Galichon and Friedman (1985) examined correlates of class cutting at a metropolitan New York university. Poor class attendance was associated with preferences for socialization over study, the enjoyment of drinking alcoholic beverages and taking drugs, and the tendency to leave studying to the last minute. Students also indicated that the most important factors related to class cutting included finding the class boring, outside employment, a dislike for either the professor or the class, or the belief that the class was unrelated to future careers.

There are still many unanswered questions about class attendance. For example, we do not know if attendance is stable or if it varies throughout the week or the semester. Is attendance related to grades, and if so, how? Also, we do not have a theory that explains why students miss classes. In this study, I examined several aspects of attendance: how attendance trends varied throughout the semester, how attendance was related to performance in classes, and what students said about why they missed classes. Finally, I at-

tempted to relate these data to self-regulated learning theory to better understand why and when students miss classes.

Method

Subjects

Participants in the first two parts of the study were 959 students enrolled in 17 sections of undergraduate psychology courses over a 3-year period. These students were in either their first or second year of college at the 2-year campus of the Pennsylvania State University, a campus of about 1,100 students. Participants in the third and fourth parts of the study were, respectively, 237 and 117 undergraduates from a 4-year campus of the University of Pittsburgh with an enrollment of about 2,600.

Procedure

For the first two parts of the study, an attendance sign-in sheet was used in 17 sections of undergraduate psychology courses. Students were given credit for class attendance worth approximately 10% of their grade.

For the third part of the study, students were administered a questionnaire about class attendance on which they reported gender, age, class standing, and an estimate of the number of classes they had missed during the last academic year. They were also asked to respond to 31 Likert-type items on why they missed classes during their college career.

The last part of the study involved examining attendance at several different points throughout the semester in a single large section of an undergraduate psychology course. These attendance figures were then compared to grades on course examinations.

Results

The overall average daily attendance was 87.8% but showed a steady decline during the semester (see Figure 1). During the first 2 weeks of the semester, average daily attendance was 93.1%, whereas during the last 2 weeks, it was 82.0%. This decline represented a significant trend, $r = -.82, p < .001.$ There was also a tendency for attendance to be lowest on Fridays. However, this trend was not significant, $F(2, 39) = 2.31, p < .12$ (Monday $M = 88.7\%$; Wednesday $M = 89.0\%$; Friday $M = 85.7\%$).

The correlation between class attendance and course grades was significant for all 17 sections, ranging from .29 to .73, $Mdn = .55$. Questionnaire data showed that students estimated that they had missed between 0 and 75 classes during the previous academic year ($M = 11.0, SD = 11.9, Mdn =$
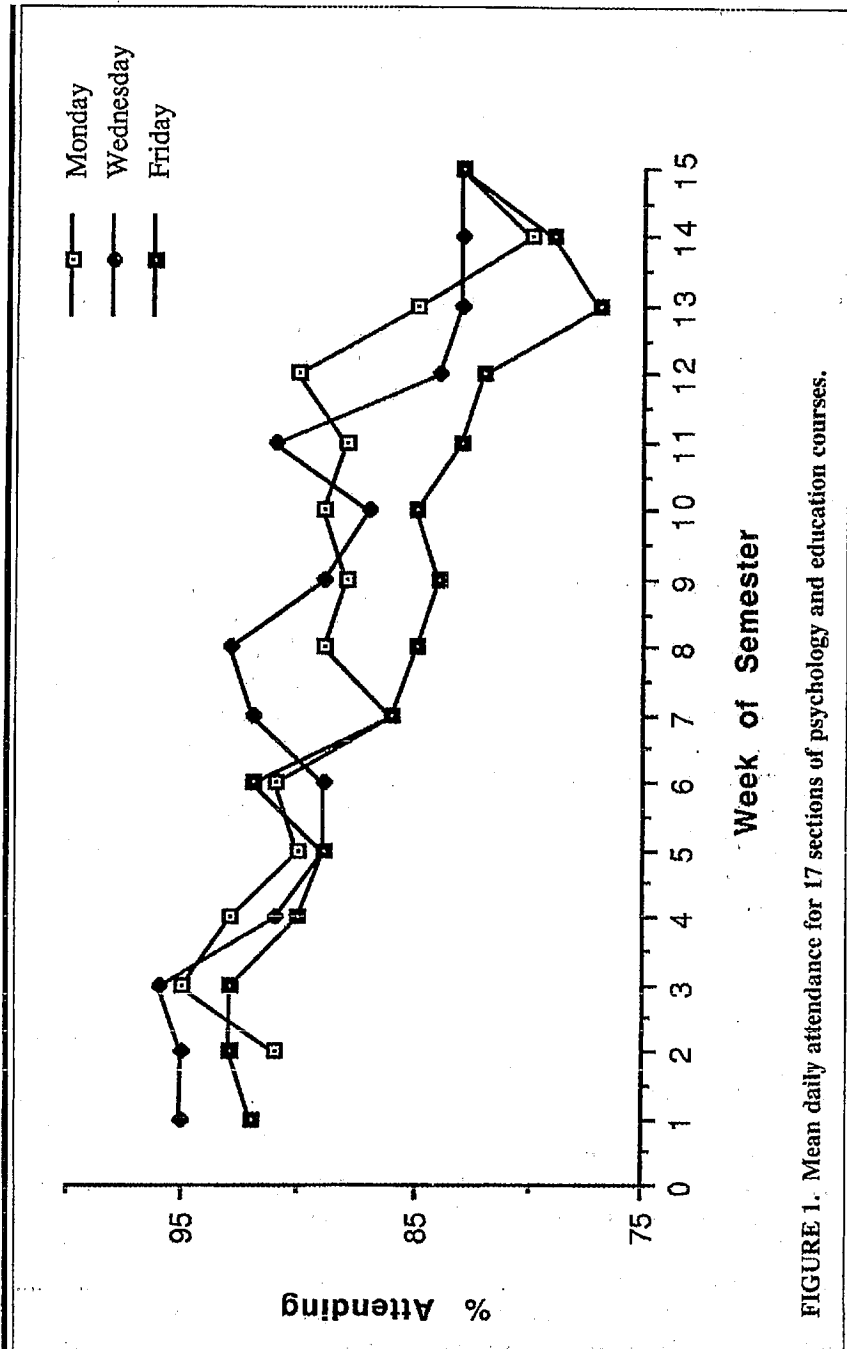
FIGURE 1. Mean daily attendance for 17 sections of psychology and education courses.

8.0). Analysis of variance (ANOVA) revealed that there was a significant class standing effect on this variable, $F(4, 227) = 2.59, p < .04$, although the effect on gender was not significant, $F < 1$. Sophomores reported missing more classes than any other group. Students indicated that the six most frequent reasons for missing class were (a) the need to complete an assignment or extra credit project or to study for another course; (b) the class was boring; (c) severe illness such as the flu; (d) minor illness such as a headache, cold, or sore throat; (e) too tired to go to class because of active social life; and (f) oversleeping.

I examined the relationship between grades and scores on course examinations and class attendance using scores on four examinations and attendance from the beginning of the course until the first examination as well as attendance between subsequent examinations. Table 1 contains the correlations among these variables and shows that the intercorrelations among the four examinations were all significant, as were five of the six intercorrelations for the attendance data. Students displayed stability both on the examinations and in their attendance behavior throughout the semester. Intercorrelations among attendance during the four quarters of the course increased toward the later part of the semester.

The correlations among the scores on examinations and attendance are of more interest. Of the 16 correlations, only 2 were significant. Attendance just prior to the third examination was significantly correlated with scores on the third examination ($r = .23, p < .02$) as well as with scores on the final examination ($r = .21, p < .03$). Although the overall magnitude of these correlations is small, there was a rather severe range restriction. There were only 5 to 10 classes between examinations when attendance could be taken, and standard deviations ranged from a low of 0.70 to a high of 1.47.

TABLE 1
Correlation Matrix for Part 4

Variable	2	3	4	5	6	7	8
1. Exam 1	.45**	.48**	.46**	.05	.00	.08	−.08
2. Exam 2		.46**	.43**	.12	.02	.17	.02
3. Exam 3			.29**	.05	.09	.23*	.11
4. Exam 4				.00	.01	.21*	.10
5. Attendance–1st quarter					.33**	.25**	.13
6. Attendance–2nd quarter						.64**	.50**
7. Attendance–3rd quarter							.62**
8. Attendance–4th quarter							

$*p < .05. **p < .01.$

Discussion

The results indicated that not all students attended all classes, that attendance declined from the beginning to the end of the semester, and that there was a tendency for attendance to vary during the week.

What appears to be especially interesting is why attendance decreased throughout the semester. It had been hypothesized that as the semester progresses, students begin to feel greater pressure. Assignments that can be delayed early in the semester become more salient as deadlines approach. Also, as students move through the semester, they are better able to estimate how well they are doing in particular courses, and they often decide to cut one class in order to prepare better for another.

Another reason students may miss more classes late in the semester is that if they become discouraged or come to believe that attending a certain class will have little effect on their grade, they may cut the class frequently, disengaging from a task that is not likely to lead to success (Jagacinski & Nicholls, 1990). Although the questionnaire did not address the question of discouragement/disengagement directly, the sixth most endorsed reason for not attending class was that students felt like cutting class for no particular reason, and the eighth most endorsed reason was that they felt that class attendance had little effect on their grades. Both of these reasons suggest that discouragement/disengagement may become a factor late in the semester.

Discouragement/disengagement is supported by the consistent positive correlation between class attendance and course grades. Jones (1984) suggested that there were four possible reasons for the correlation between grades and attendance. Grades and attendance could be related either to overall motivation or to overall ability. Good attendance could result in better grades, or good grades could lead to improved attendance. His data furnished some support for the last two reasons, which led him to suggest a combined downward-spiraling model. That is, when students miss several classes early in the semester, they do less well on their first examinations than they had hoped. This leads to discouragement, which results in missing more classes, receiving even lower grades, and so forth. Missing classes leads to poor grades, which leads to discouragement and missing more classes, which leads to even poorer grades.

This explanation is in keeping with the social cognitive view of self-regulated learning and especially the self-efficacy theory (Bandura, 1982; Schunk, 1984, 1991; Zimmerman, 1989, 1990; Zimmerman & Schunk, 1989). Assuming that students make decisions to not attend class, these researchers argued that these decisions are based on perceived self-efficacy. If students view themselves as capable of successfully accomplishing a task, they will more likely attempt it. If they view themselves as less capable, they are more likely to avoid that task.

One of the sources of information students use to make self-efficacy judgments is their own prior performance. Prior performance becomes especially relevant when students have few other ways to alter self-efficacy estimates. If students do well on a first assignment or examination, for example, they will likely raise their self-efficacy estimate. This generally will lead them to feel more encouraged about their probability of success, and they will be willing to put in more effort (e.g., attend class regularly). Poor performance will lead to a lower self-efficacy estimate. With success appearing less likely, they are discouraged from exerting more effort and are more likely to miss classes.

Such a model would be confirmed if the correlations between examination scores and attendance following examinations showed a steady increase throughout the semester, that is, that prior performance affected subsequent attendance behavior and that this effect was cumulative. An examination of the correlation matrix from Table 1, however, indicates only weak support for such a hypothesis. The three correlations between scores on examinations and attendance immediately following the examinations were all nonsignificant. This pattern could mean that the self-efficacy theory does not account for this behavior. However, attendance during the third quarter was significantly correlated with scores on both the third exam ($r = .23, p < .02$) and on the final ($r = .21, p < .03$).

If discouragement/disengagement is responsible for lower attendance late in the semester, this tendency could be reduced by convincing students that early poor performance in a course will not necessarily lead to a lower course grade. Some instructors attempt to deal with this by allowing students to drop their lowest examination or quiz grade. I tell students that if they perform poorly on their first or second examination, and subsequently perform better on future examinations, the earlier examinations will be weighted less than the later examinations in computing their final grades. Students are told about this policy immediately following the first examination as an attempt to reduce any effects of discouragement when those effects are likely to be at their highest. However, there is yet little empirical evidence to indicate that either of these procedures result in increased self-efficacy and improved attendance.

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