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AUTHOR Edwards, K. Anthony
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ABSTRACT

Attendance at guest lectures, instructor lectures, and films in self-paced introductory psychology courses was examined in two experiments with 180 students in an introductory psychology class at Utah State University. In the first experiment, students were given no points, one point credit toward interviews, or one point credit toward the final examination for attendance. In the second experiment, students were given 0, 1, 3, or 5 points credit toward the final examination for attendance. Sixteen events were randomly scheduled in each study. Results showed that attendance was highest in the first experiment when points were applied to the final examination. Attendance in the second experiment was highest when point magnitude was 3 or 5 points compared with 0 or 1 point magnitudes. A continuing reduction in attendance was seen as a function of the number of events regardless of the event class or the point magnitude. Concluded was that carefully selected point contingencies may be used to attract students to lectures and films in self-paced courses, but points gradually lose effectiveness in specific events after repeated exposure. (Author/JT)

Attendance at Lectures and Films in Self-Paced Courses

K. Anthony Edwards

Minot State College

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Running head: Attendance in Self-Paced Courses

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Abstract

Attendance at guest lectures, instructor lectures, and films in self-paced introductory psychology courses was examined in two experiments. In the first experiment, students were given no points, one point credit toward interviews, or one point credit toward the final examination for attendance. In the second experiment, students were given 0, 1, 3, or 5 points credit toward the final examination for attendance. Sixteen events were randomly scheduled in each study. Results showed that attendance was highest in the first experiment when points were applied to the final examination. Attendance in the second experiment was highest when point magnitude was 3 or 5 points compared with 0 or 1 point magnitudes. A continuing reduction in attendance was seen as a function of the number of events regardless of the event class or the point magnitude. Concluded was that carefully selected point contingencies may be used to attract students to lectures and films in self-paced courses, but points gradually lose effectiveness in specific events after repeated exposure.

Attendance at Lectures and Films in Self-Paced Courses

Lectures were originally used by Keller (1968) in his personalized courses as motivational devices. Those students eligible to attend were finished with a minimum portion of the course by demonstrating mastery at some specified time or sooner. Keller noted that only about half of those eligible to attend lectures did so. Other studies in personalized instruction have noted reduced attendance at lectures and demonstrations (Powers & Edwards, 1971) and movies, lectures, and demonstrations (Born & Herbert, 1971) as the course progressed.

Some contingencies for attendance were examined by Lloyd, Garlington, Lowry, Burgess, Euler, and Knowlton (1972). Nearly all students attended class when discussions and quizzes were held in the same session. Class attendance gradually declined when no contingencies were attached. Attendance decreased to nearly zero by the end of the term even when assignment completion was required for admission. When points were given toward the final grade, attendance in all cases increased to 90%. When questions on future quizzes were answered in the lecture, attendance appeared to be directly related to the number of questions answered. The results showed clearly that class attendance was closely linked to its consequences.

One question left unanswered by Lloyd, et al. (1972) was that of decreased attendance regardless of the consequences. The present study was more specifically designed to examine whether attendance at lectures

and films would decline if reinforced with points toward interviews or final exams. In addition, the present study was conducted to determine whether the event used (i.e., films, instructor lectures, or guest lectures) would affect attendance. In the first experiment, no points were given, one point toward interviews was given, or one point toward the final examination was given for attendance at guest lectures, instructor lectures, or films. In the second experiment, 0, 1, 3, or 5 points were given toward the final examination for attendance. In both experiments, all coursework was self-paced and no other contingencies were placed on attendance.

EXPERIMENT I

This experiment was conducted to determine whether points toward interviews would differ from points toward final examinations or no points for attendance at films, instructor lectures, or guest lectures.

Methods

Subjects

Students enrolled in an introductory psychology class at Utah State University during the winter term were used as subjects. Attendance ranged from 163 to 180 students during the first five days of classes. It was stressed in these introductory remarks that attendance following the first five lectures was not required nor would absence be punished in any way.

Setting

An auditorium seating about 150 students was used for delivering the lectures and showing the films. The auditorium was used during the regularly assigned class time exclusively for lectures or films. Eight guest lecturers from the department of psychology at Utah State University were scheduled to speak during the 10-week quarter. Lecturers included four faculty members and four graduate students. Nine guest lectures, three instructor lectures, and four films were scheduled for the term.

Procedures

The lecture/film program was announced during the initial lectures introducing the students to the course. Printed copies of the lecture/film schedule with titles and speakers listed were also handed out.

Points and contingencies were announced to the students on the day prior to the event. Teaching assistants (i.e., proctors) were asked to remind their students on the scheduled days. Presentations began 10 to 15 minutes after the regularly scheduled class time to allow students to arrive late without disrupting the presentation. This procedure was necessary due to the reminding of students of the scheduled event on the day of its presentation. Students received no points, one point toward interviews, or one point toward final examinations for attendance. Point accumulation toward interviews allowed students to eliminate interviews required for course completion, however, all units

were tested on the final examination. Points accumulated toward the final examination were added to the final exam score. As soon as 90% or better was obtained on the final examination, students were finished with the course and received an "A" grade.

Results and Discussion

Figure 1 shows the mean number of students in attendance at events according to the contingency for each. Attendance at guest lectures, instructor lectures, and films was nearly three times greater when points were given toward the final examination ($\bar{X}$=30) than toward interviews ($\bar{X}$=10) or no points ($\bar{X}$=11). Analysis of these differences using the Kruskal-Wallis one-way analysis of variance by ranks (Siegel, 1956) showed significant differences in attendance ($H=6.21$, $df=2$, $p<.05$).

Insert Figure 1 about here

Attendance at each event according to its contingency is shown in Table 1. Attendance at the first and last meeting of each event with the same contingency was compared using a t-test for non-independent groups (Hardyck & Petrinovich, 1976). The comparison showed a significant difference between the two conditions ($t=3.30$, $df=5$, $p<.025$).

Insert Table 1 about here

Two findings were clear from this experiment. One was that the

students were more likely to attend lectures or films when points were given for the final examination than for interviews or none at all. One possible explanation for interview points failing to generate attendance equal to final points is that the interviewed units would be later tested even though the interview itself might have been exempted. The second finding which was clear was that fewer students attended events with the same contingency on the last occasion of the event. Since only one point was offered in this experiment, possibly the reduced attendance might have been a result of inadequate reinforcement magnitude.

EXPERIMENT II

This experiment was conducted to ascertain the effects of point magnitude on attendance at lectures and films and to determine whether attendance at different events would maintain at some point magnitude.

Subjects

Students enrolled in an introductory psychology class during the spring term at Utah State University served as subjects. Attendance at the first four lectures was 123, 133, 131, and 124, respectively. The lectures introduced the students to the class procedures. It was stressed at these lectures that attendance was not required nor was lack of attendance punished following the introductory lectures.

Setting and procedures

The auditorium used in Experiment I was used for the lectures and

films in Experiment II. As in the first experiment, the course was self-paced with no events scheduled other than those used in the experiment. Two guest lecturers assisted in the second experiment who had not assisted in the first, and two guest lecturers in the first experiment did not assist in the second. Eight guest lectures, five films, and three instructor lectures were scheduled for the term. The lecture/film program was announced during the introductory lectures and printed copies of the program were handed out with the titles and presenters listed. Point contingencies were announced on the day prior to the event and assistants charged with the students were asked to remind them of the event on the scheduled day. Sessions were begun 10 to 15 minutes after the regularly scheduled class time to allow freshly reminded students to arrive late without disrupting the presentation. Students received 0, 1, 3, or 5 points toward the final examination for attendance at selected events. The points obtained were added to the final examination score which required 90% or higher for a passing grade. Once 90% or better was obtained, relative to the points possible, the student received an "A" grade in the course and his or her responsibilities were terminated.

Results and Discussion

The attendance at events is described in Figure 2. Note that the attendance showed a trend toward decreasing with occasional increased attendance as the point magnitude increased or as the events were changed.

Attendance at events with 3 and 5 points combined ($\bar{X}$=15) was slightly higher than combined attendance at events with 0 or 1 points ($\bar{X}$=11). A Kruskal-Wallis one-way analysis of variance by ranks (Siegel, 1956) yielded significant differences between the two measures ($H=6.46$, $df=1$, $p<.02$).

Insert Figure 2 about here

Attendance at the first and second sessions of events is shown in Table 2. As in the first experiment, a decrease in attendance as the events with equal contingencies were repeated was seen. This was the case regardless of the point value of the event class. Using a t-test for non-independent groups (Hardyck & Petrinovich, 1976), a significant difference between the two measures was found ($t=4.26$, $df=5$, $p<.01$).

Insert Table 2 about here

General Discussion

The present study indicated that students would attend lectures, guest or instructor, and films for points of varying magnitudes early in the term, but attendance reduced as the term progressed. As expected, more students attended events when a higher magnitude of points was offered. In addition, more students attended events in which points offered were

related to final examination scores than when the points were related to interviews.

In earlier reports by Keller (1968) and Lloyd, et al. (1972), it was noted that students rarely attend lectures if the only incentive offered is the topic, even if the lecturer was well-known. The study by Lloyd, et al. (1972) experimentally confirmed Keller's (1968) hypothesis. The present study has taken the hypothesis a step further and demonstrated experimentally the hypothesis of Powers and Edwards (1971) that attendance gradually declines during a term regardless of the class to which the event belongs. In an earlier study of student performance in self-paced courses (Powers & Edwards, 1974), it was shown that a late start in the course was possibly related to withdrawing from the class. Another study by Powers, Edwards, and Hoehle (1973) showed that students induced to start work early through the use of bonus points for early work were less likely to withdraw from the course. It would seem that initially using bonus points for early completion and no points for attendance, then gradually reversing the contingencies to no bonus points for work completion but points for attendance might maximize learning and attitudinal reports. Students could complete work early and casually attend "enriching" and perhaps entertaining current topic presentations without the threat of aversive consequences for failing to participate. It remains to be seen, however, whether such an interaction would take place. Until such a study is done, we can only speculate on the possible outcome.

The major implications of the present study which have been suggested are that students will attend lectures and films if reinforcement of a sufficient magnitude is related to a final grade and if the event class is frequently changed. This seems to be in line with studies reporting added reinforcing properties for lectures laced with jokes (Frasner, Lewis, & Kertes, 1975). The present study suggests that we may be on the wrong track focusing on jokes as a necessary condition for "good" lectures, but that the only necessary and sufficient conditions for lectures are novelty and an adequate reinforcement magnitude.

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Footnotes

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Table 1

Events Occurring Twice or More, Related Attendance, and Point Contingency

Event	Point Contingency	Order of Event		
		1	2	3
Film	0	20	8	-
Film	Interview	9	12	-
Instructor Lecture	Interview	14	6	-
Guest Lecture	0	18	8	2
Guest Lecture	Interview	18	8	5
Guest Lecture	Final Exam	14	42	39

Table 2

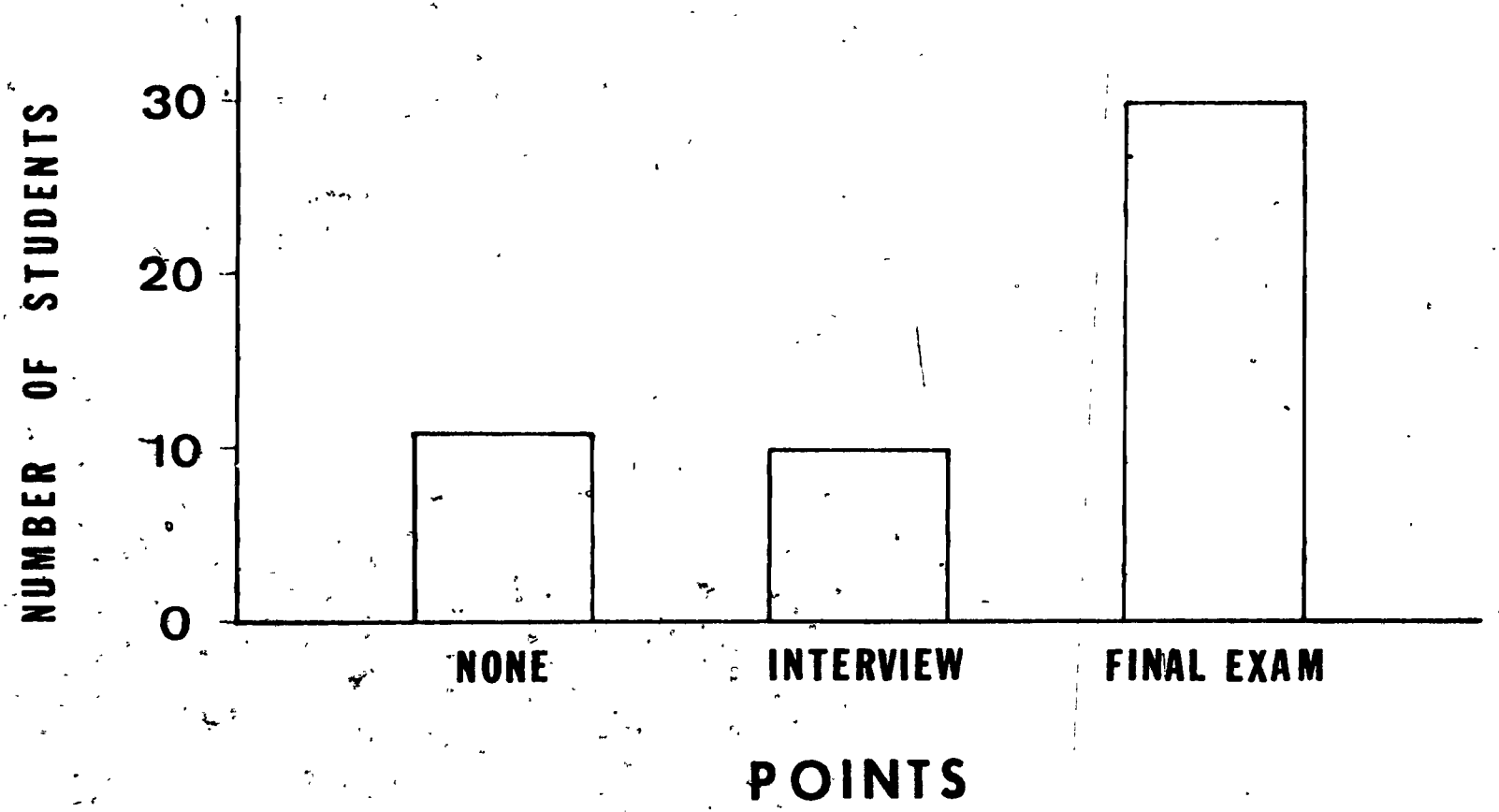
Number of Students at Each of the First Two Events with the Same Contingency

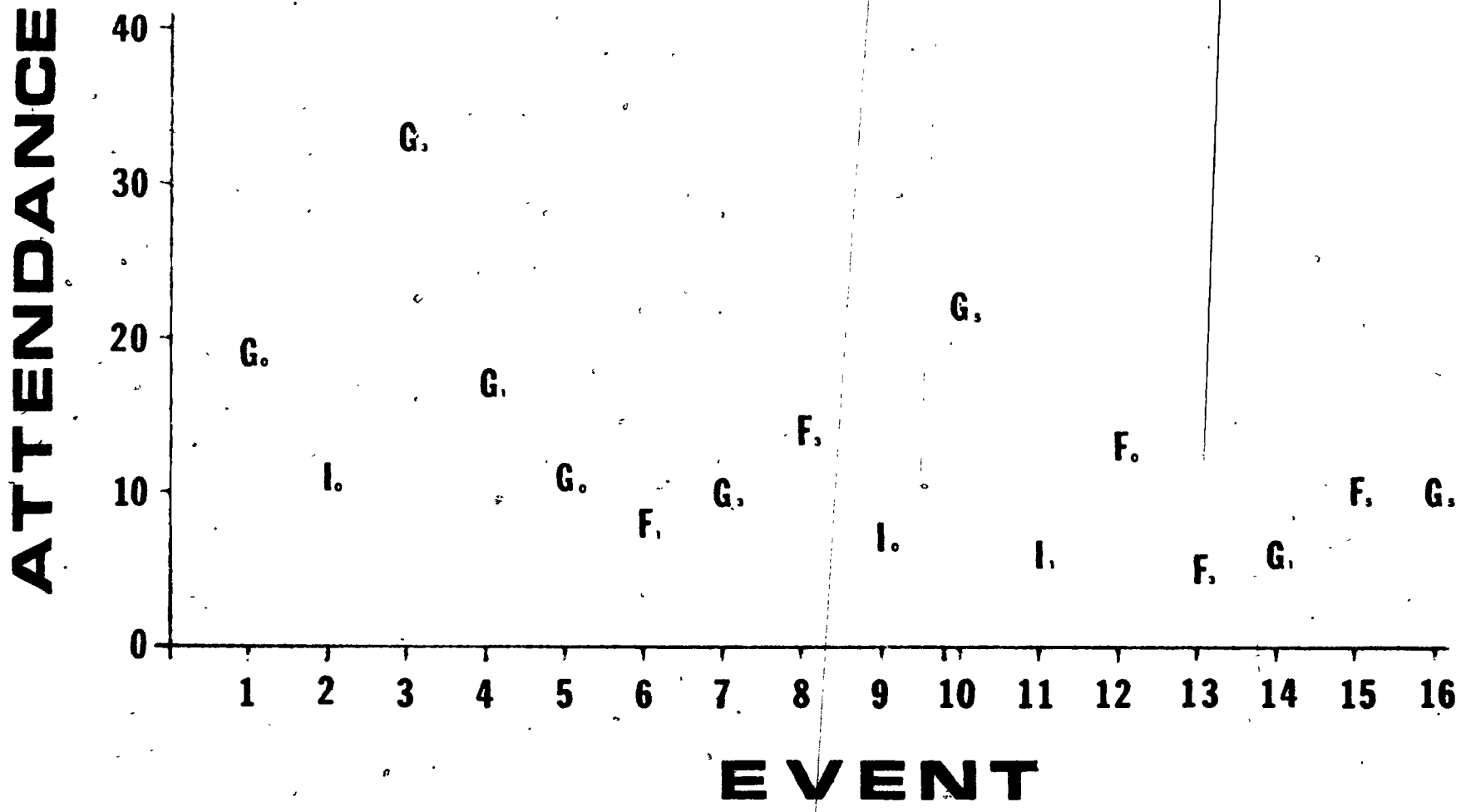
Event	Point Contingency	Order of Event	
		1	2
Film	3	14	5
Guest	0	19	11
Guest	1	17	6
Guest	3	33	10
Guest	5	22	10
Instructor	0	11	7

Figure Captions

Figure 1. Mean number of students at films, guest lectures, and instructor lectures according to point contingencies.

Figure 2. Attendance at events in the sequence presented to the class for 0, 1, 3, or 5 points toward the final examination. "G" represents a guest lecture, "I" indicates an instructor lecture, and "F" indicates a film presentation. Subscripts represent the point magnitude for attendance.


MEAN NUMBER OF STUDENTS
30
20
10
0
NONE
INTERVIEW
FINAL EXAM
POINTS


ATTENDANCE
40
30
20
10
0
G₃
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I₀
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I₀
G₃
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F₀
F₃
G₁
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EVENT