University professors are surveyed regarding their use of instructional media, including movie, slide and overhead projectors, record players, and television receivers. Results show widespread usage of equipment and materials as an integral part of instruction, and lend modest support to the hypothesis that faculty who teach the largest classes use the most films. The researcher is led to wonder why the usage is not even greater. The report includes statistical tables and the survey instrument. (WBC)
"How College Professors Use Media Services"

by

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HOW COLLEGE PROFESSORS USE MEDIA SERVICES

Technology is defined by John Kenneth Galbraith as "the systematic application of scientific or other organized knowledge to practical tasks."\(^1\) Instructional technology often cannot reach its potential, not because of the lack of scientific knowledge, but rather because there is no "systematic application" of the "other organized knowledge" to the "practical task" of instructing students.

Specifically, the attitudes and habits of teachers (professors at tertiary level), is a crucial component of the success of instructional technology. The teachers' knowledge of, and attitude to the media and materials seems to be a limiting factor in the improvement of instruction. Some empirical evidence of this attitude has been gathered by a survey of instructors in some 39 departments of a rather typical (population 23,000) Midwestern University. While our primary purpose was to provide the university administration with a picture of the faculty's own reporting of contributions of our communication services division, the emerging picture is of wider significance than that. These findings, then, are offered to provide the instructional technologist with some objective data in a field where polemical and theoretical essays predominate,\(^2\) and also to provide a model for a media person to adapt to his or her own situation when faculty practices regarding the media are to be ascertained.
The Instrument.

Considerable faculty resistance to any kind of survey was present so brevity was essential. Six questions regarding department, course level, film and media usage were asked. Comments were invited on the back of the form. (See Instrument). The instruments were distributed to department secretaries along with instruction sheets. The individual faculty member used a number two pencil to fill in the form. The sheets were optically read and the data transferred to tape for teleprocessing. SPSS subprograms were used.

Reliability Check.

1) 14 questionnaires were rejected for processing as they were obviously not filled out as per the instructions.

After processing, the data were visually inspected and seven cases were altered as they clearly misconstrued place value, e.g., putting 2 in the ten's place when it should obviously have been in the digit's column.

Validity Check.

The survey data was cross checked with Media Distribution's records and seemingly unlikely cases (such as the Phys. Ed. instructor who orders 75 films a semester) were further examined to prevent errors. The data checked out as accurate.

Representativeness of the Sample.

The usable return from the questionnaires was 43.6% of the teaching faculty. (This was 523 returns from 1200 teaching faculty. The 1200 figure was not an approximation, but the sum of the numbers of faculty in the 39 departments as provided by the office of Analytical Studies).
However, neither History nor Philosophy were adequately represented as only 1 person replied from each department. (History has 41 members and Philosophy 15 faculty members). It could be argued that these two humanistic departments have a low involvement in instructional media usage. On the other hand, perhaps there were other factors operative. The next two departments not adequately represented were Music (20.7% responded) and Men's Physical Education (21.4%). All other departments responded in numbers close to the overall average except for the two high responders, Elementary Education (77.4%) and Library Science (80%).

Of course, it is an assumption of this survey that all departments are equally represented.

FINDINGS

1. Production of Instructional Materials.

Over one third of the faculty claim to use Communication Services' Art/Photo section to have slides made (see Table 1). Because half the faculty use the slide projector in their classrooms (see Table 2), the survey seems to indicate that at some time or another (and not necessarily in the semester of the survey), that as many as half the faculty have slides made. Perhaps it is also necessary to point out that having slides made tends to become a routine prerequisite for classroom preparation, as most of Art/Photo's clients tend to return for more services.

Almost a quarter of the faculty have charts, graphs, overhead transparencies and other photographic materials made. 16% have TV tapes made, and 3% movies. (see Table 1).

2. Distribution of Equipment.

Two thirds of the faculty order a movie projector for their class-
rooms. (This number correlates exactly with the sum of the number of people who claim they use off-campus films and the people who use campus library films).

Almost as many, 58%, use an overhead projector in their classrooms.

Surprisingly, about one quarter of the teachers use a record player or use a television receiver for instructional use.

3. Films

Analysis of the data provides some support for the hypothesis that faculty who teach the largest classes tend to use the most films.

Scattergram analyses of the number of students taught (NUMSTUD), by the number of films from the on-campus library (FILMSON), the number of films from off-campus sources (FILMSOFF), and the total number of films used in a semester (NUMFILMS) gave no reason to reject the assumption of linearity in the relationship.  

Pearson $r = .16$ ($p < .001$) for NUMFILM by NUMSTUD, $r = .08$ ($p = .02$) for NUMSTUD by FILMSON, and $r = .21$ ($p < .001$) for FILMSOFF by NUMSTUD.

The linear model explains some of the variance, but the relationship is a weak one.

More variance is explained by a non-linear model. Eta for NUMSTUD by NUMFILM = .39, by FILMSON = .27, and FILMSOFF = .40.

Apparently then, the uppermost consideration (because of the relatively slight relationship) is that films from the on-campus library are used by teachers by both large and small classes. There seems to be more of a relationship between off-campus film bookings and large classes. For example, two instructors report teaching 600 students and using 18 off-campus films. More noteworthy was that another instructor
claims teaching 260 students and using 60 off-campus films. On the other hand, one instructor claims to teach 693 students per semester and uses only 1 off-campus film.

Table 3 shows the pattern which emerges when the numbers of film orders are compared. 62.5% of the faculty order films, 57.5% use on-campus source.

Table 4 shows grouping, initially by fives, then in more appropriate larger segments. 29.3% said they ordered between 1 and 5 films from the on-campus library and 24.3% said they ordered between 1 and 5 films from off-campus sources.

The difference between on-campus and off-campus booking seems to lie in the ranges 6 through 15 and 6 through 30. Fully 27.6% of the faculty claimed they ordered more than 6 and less than 30 from the on-campus library, while only 9% booked these numbers from off-campus. More precisely, 23.6% booked between 6 and 15 films from on-campus and 8.1% booked these numbers from off-campus sources.

These figures alone might lead to the interpretation that the on-campus library was more popular because it provided most of the films, but when the factor of rental cost is considered (off-campus bookings are charged to the department and on-campus bookings are not), there is a significantly large number of off-campus bookings.

In summary, the picture shows widespread usage of equipment and materials as an integral part of instruction undertaken by the university, however, it is perhaps remarkable that there isn't more instructional media usage. One third of the faculty doesn't ever show a movie in the classroom, four out of ten don't use the overhead projector, only half use a slide projector, and about three quarters of the teaching population of this college use neither a record player nor a tele-
Undoubtedly, the professors would have been insulted had we asked them if they used books, but there still seems to be a prevalent pride in academia at being innocent of acquaintance with film, slides, television or other "new" media. Also, undoubtedly, education will remain a labor intensive industry, but this survey surely indicated that productivity in teaching can rather easily be improved by using media more extensively, especially in higher education.
### Table I

**Requests for Production of Materials**

<table>
<thead>
<tr>
<th>Material</th>
<th>Percentage of Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slides</td>
<td>35%</td>
</tr>
<tr>
<td>Other Photo Materials</td>
<td>23%</td>
</tr>
<tr>
<td>Television Tapes</td>
<td>16%</td>
</tr>
<tr>
<td>Motion Pictures</td>
<td>3%</td>
</tr>
</tbody>
</table>

\( n = 523 \)

### Table II

**Requests for Equipment**

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Percentage of Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motion Picture Projector</td>
<td>62%</td>
</tr>
<tr>
<td>Overhead Projector</td>
<td>58%</td>
</tr>
<tr>
<td>Slide Projector</td>
<td>52%</td>
</tr>
<tr>
<td>Record Player</td>
<td>26%</td>
</tr>
<tr>
<td>Television Receiver</td>
<td>24%</td>
</tr>
</tbody>
</table>

\( = 523 \)
### Table III

The Sources of Film Bookings

<table>
<thead>
<tr>
<th>Source of Films</th>
<th>% of Faculty Using Films</th>
</tr>
</thead>
<tbody>
<tr>
<td>Some Films</td>
<td>62.5%</td>
</tr>
<tr>
<td>Films from On-Campus</td>
<td>57.5%</td>
</tr>
<tr>
<td>Films from Off-Campus</td>
<td>33.5%</td>
</tr>
</tbody>
</table>

### Table IV

Breakdown of Numbers of Films Faculty Order from On-Campus & Off-Campus Libraries

<table>
<thead>
<tr>
<th>No. of Films</th>
<th>Percentages of Faculty Using Films</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 5</td>
<td>On-Campus: 29.3%  Off-Campus: 24.3%</td>
</tr>
<tr>
<td>6 - 10</td>
<td>On-Campus: 18.2%  Off-Campus: 7.1%</td>
</tr>
<tr>
<td>11 - 15</td>
<td>On-Campus: 5.4%  Off-Campus: 1.0%</td>
</tr>
<tr>
<td>16 - 50</td>
<td>On-Campus: 4.0%  Off-Campus: 1.0%</td>
</tr>
<tr>
<td>31 - 50</td>
<td>On-Campus: 0.6%  Off-Campus: 0.0%</td>
</tr>
<tr>
<td>51 - 75</td>
<td>On-Campus: 2.2%  Off-Campus: 2.2%</td>
</tr>
</tbody>
</table>
SOCIAL SCIENCES UNIVERSITY

current Use Survey April 1973

for the teaching faculty

would you please take a minute to fill in this survey. The information obtained
will assist the Communication Services division in its policy-making decisions,
and in its attempt to serve you better. Thanks!

Myles P. Green, Chairman
Communication Services Steering Committee

3. Please indicate below the course level(s) you teach (100, 200, 300, 400, 500, 600)
and the number of students.

<table>
<thead>
<tr>
<th>Course Level</th>
<th>No. Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td></td>
</tr>
<tr>
<td>2nd</td>
<td></td>
</tr>
<tr>
<td>3rd</td>
<td></td>
</tr>
<tr>
<td>4th</td>
<td></td>
</tr>
</tbody>
</table>

4. Please estimate how many films you will use
this semester:

<table>
<thead>
<tr>
<th>Film Source</th>
<th>On Campus</th>
<th>Off Campus</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. Do you use in class? Please indicate:

- Overhead Projector
- Movie Projector
- Record Player
- Slide Projector
- Television Receiver

6. Do you have instructional materials
made? Please indicate:

- Television Tapes
- Slides
- Books
- Other Photographic Materials
REFERENCES


4 An apparent hyperbolic curve was simply a function of the positive skewness of the distributions involved.