

Faculty and Student Perceptions of Providing Instructor Lecture Notes to Students: Match or Mismatch?

R. Eric Landrum

Students and faculty were surveyed about their perceptions of faculty members providing a replica of instructor lecture notes to students, and the subsequent impact that practice might have on student attendance and student learning. Each group was also surveyed about particular preferences in information delivery in the classroom. Results indicate significant mismatches in the perceptions of faculty and students regarding these pedagogical choices, complicating the decisions faculty make regarding providing instructor notes to students. A compromise solution is proposed, and faculty are encouraged to reshape their teaching approach, considering all the complexities involved, to a method that may work to maximize student learning.

Lecturing to students continues to be the dominant mode of instruction in college classrooms (Armbruster, 2000; Bligh, 2000). According to generative theory (Wittrock, 1990), students actively construct meaning by creating relationships (a) with information provided in lecture, and (b) between information provided in lecture and their own prior knowledge. From this perspective, generative processing is challenging for students because they must "listen to the lecture, select important ideas, hold and manipulate these ideas in working memory, interpret the information, decide what to record, and then write it down" (Armbruster, 2000, p. 176). Research on the interactions between faculty lecturing and student notetaking has yielded fruitful results. For instance, Stewart (1989) found that for simple recall tasks, lecturer enthusiasm was more important when students take notes as compared to when students just listen. However, students are not particularly good at taking complete notes (Kiewra, 1985a), and estimates of student accuracy in lecture notetaking hover around 40% (Kiewra, Du-Bois, Christensen, Kim, & Lindberg, 1989). This is unfortunate because accurate lecture

notetaking is related to better test performance (Williams & Eggert, 2002).

The benefit of providing notes to students can occur without students attending lecture (Kiewra, 1985a), but research results are mixed. Vandehey, Marsh, and Diekhoff (2005) found that in a semester-long class-based study using 3 conditions (student-generated notes, instructor-provided partial notes, and instructor-provided full notes), final grades and attendance did not differ across the 3 groups. However, in a study of introductory psychology students controlling for initial levels of student knowledge and academic ability, Cornelius and Owen-DeSchryver (2008) found that students receiving partial notes performed better on later exams and a cumulative final exam than students receiving full notes. Cornelius and Owen-DeSchryver (2008) also report that students in the full note condition reported a negative effect on attendance. Somewhat related to attendance, Kakhnovets and Terry (2008) found that when rated by observers, students who received lecture slides were less attentive during class. These researchers also found that those without lecture slides had higher quiz scores and that these students (without lecture slides) reported that the lectures held their attention more. Thus, in some studies, there is a beneficial effect of on class performance (e.g., Austin, Lee, & Carr, 2004), but this effect is not consistent.

R. Eric Landrum, Department of Psychology,
Boise State University.

Correspondence concerning this article
should be addressed to Eric Landrum at
elandru@boisestate.edu.

Furthermore, there is conflicting research on the impact of class attendance and attentiveness based on whether full, partial, or no notes are provided. One goal of this research was to examine how the potential match or mismatch between student and faculty expectations may impact the classroom environment.

In previous research, Knight and McKelvie (1986) reported that students who did not attend lectures performed as well as those who did attend, particularly when the former group is given a written summary to study. It appears that the benefit of lecture notes may come from the review of notes, not in the taking of the notes per se (Armbruster, 2000; Kiewra, 1985a; 1985b). Given students' lack of success at complete and accurate notetaking, providing instructor lecture notes to students appears to be a desirable strategy. Kiewra (1985b) found that a student's personal notes should not be replaced by the instructor's notes, and, that in the ideal situation, both sets of notes should be available for review. If faculty make their instructor notes available, however, would students stop taking notes? Moreover, would students stop attending class if provided with instructor lecture notes? There is some evidence that students do become less attentive during lecture when provided lecture notes (Kakhnovets & Terry, 2008).

Student attendance is positively related to student performance. For instance, Sleight, Ritzer, and Casey (2002) found that 79% of students believe that student attendance is related to final grade in the course, and Brocato (1989) reported that regular class attendance is a contributing factor in students receiving good grades, and the attendance factor was more important for younger students. Van Blerkom (1992) reported that attendance was moderately correlated with course grade. Thus, some faculty may be reluctant to provide lecture notes if they believe that it will reduce attendance, and yet the literature is somewhat clear on the benefit of providing instructor lecture notes to students. How do instructors resolve this conflict, and how do those attitudes match

or mismatch with student expectations? The goal of this study is to examine how faculty and student perceptions of providing lecture notes to students may or may not differ. Using a methodology common to other studies, (Dillon, 1998; Sleight et al., 2002), students and faculty were asked similar survey questions and responses compared to reveal matches or mismatches in perceptions. Making a decision to provide some form of notes to students already appears to be a complex decision, and perhaps examining the matches and mismatches of expectations from an institutional context may help faculty members resolve this dilemma on a case-by-case basis.

Method

Participants

Student participants were recruited ($N=76$) using a departmental subject pool; students completed the survey as one method of partially fulfilling a general psychology course research experience requirement. Students' average enrollment in college was 1.43 years ($SD = 0.75$) (73.7% freshmen, 21.1% sophomores, and 5.3% juniors). The average student age was 20.53 ($SD = 3.60$), ranging from 18 to 39, with 46.1% male and 53.9% female.

Faculty participants were recruited from across the university ($N=53$) by first obtaining a sample of 200 names and email addresses of current faculty (the Office of the Provost provided the sample of 200 possible faculty participants). Faculty average years teaching experience was 19.74 years ($SD=9.71$) (2.0% adjuncts, 56.9% associate professors, 41.2% full professors). The average faculty age was 49.63 ($SD=7.89$), ranging from 35 to 65, with 54.0% male and 46.0% female.

Materials

Survey questions were created to ascertain faculty and student perceptions about the provision of instructor notes to students. An instructor survey and a student survey were created. Items unique to the student survey are presented in Table 1; items unique to the

instructor survey are presented in Table 2. The identical questions that were asked on both surveys are presented in Table 3; respondents indicated relative agreement to the Likert-type statements using a scale from 1=*strongly disagree* to 5=*strongly agree*.

Procedure

Students completed the paper-and-pencil survey in two groups in large classrooms. Typically, students completed the survey in about 20-25 min. After completing the survey, students were debriefed and thanked for their participation. Faculty were sent an email about the survey, and were provided an Internet link if they chose to participate. After completing the online survey (26.5% response rate), faculty were debriefed and thanked for their participation. The amount of time each faculty member used to complete the survey was not recorded.

Results

This section is divided into two subsections: (a) student and faculty perceptions (i.e., survey items that were concerned with student preferences only or faculty preferences only), and (b) identical questions that were asked of faculty and students allowing for a direct comparison of perceptions.

Student and Faculty Perceptions

When asked about presentation mode preference, students indicated a strong preference for the use of PowerPoint for lecture notes (68% agreeing or strongly agreeing with the statement "I prefer the use of PowerPoint for lecture notes in my classes.") See Table 1 for the top two box scores (percentage agree + percentage strongly agree) for all the presentation mode items rated by students.

When faculty were asked about notetaking, 83% of faculty expect students to take notes in class. Almost 60% of faculty provide notes to students using a chalkboard or whiteboard, and just over 40% of faculty respondents indicated they use PowerPoint to present lecture notes in class. It should be noted that response categories were not mutually exclusive; a faculty member could agree or disagree on one presentation mode (e.g., chalkboard/whiteboard, overhead transparencies, PowerPoint) independently of other presentation modes (see Table 2 for the list of faculty survey items). Concerning the course materials distributed to students, 25% of faculty responded that they do not provide any notes of any kind to students, and 23% indicated that they prefer giving student pre-produced handouts with blanks so that student can follow along during

Table 1
Student Perceptions on Class Notes

Survey Items	Top Two Box Score (% Agree + % Strongly Agree)
I prefer the chalkboard/whiteboard for lecture notes in my classes.	19.7%
I prefer PowerPoint in class, but not for presentation of lecture notes.	21.0%
I prefer the use of overhead transparencies for notes in my classes.	14.9%
I prefer the use of PowerPoint for lecture notes in my classes.	68.1%
I prefer hand written lecture notes during class.	22.7%
I prefer scanned in handwritten notes for classes.	4.1%
I do not prefer any notes of any kind prior to class.	9.3%
<i>Note. N = 76.</i>	

Table 2
Faculty Perceptions on Class Notes

Survey Items	Top Two Box Score (% Agree + % Strongly Agree)
I expect students to take notes in my class.	83.0%
I use the chalkboard/whiteboard to present lecture notes to my class.	59.6%
I use PowerPoint in class, but not to present lecture notes.	9.6%
I prefer to use overhead transparencies to present lecture notes to my class.	21.1%
I prefer to use PowerPoint to present lecture notes to my class.	40.3%
My lecture notes are my PowerPoint presentation.	32.7%
I prefer hand writing lecture notes during class.	32.7%
I prefer scanning in handwritten notes for students.	0.0%
I do not provide any notes of any kind to my students.	25.0%
I prefer giving students pre-made handouts with "blanks" in them.	23.0%
<i>Note.</i> $N = 53$.	

lecture. It is interesting that 83% of faculty members expect students to take notes, yet 25% of faculty members use no visual method of presenting lecture notes to students.

Direct Comparison of Student and Faculty Perceptions

Faculty and students were asked 8 questions using identically worded scales (1=*strongly disagree*, 2=*disagree*, 3=*neutral*, 4=*agree*, and 5=*strongly agree*); these items are presented in Table 3, including group means, standard deviations, and *t* test outcomes. Because 8 *t* tests were performed, I used a Bonferroni correction and rejected the null hypothesis only when $p < .006$. Four significant differences emerged, as noted in Table 3. Students agreed significantly more than faculty members that: (a) instructors should provide lecture notes to students prior to class, (b) overall class grade averages would increase in instructor notes were provided prior to class, and (c) providing lecture outlines with "blanks" encourages students to come to class. Faculty members disagreed significantly more than students on the item "providing notes to students before class has no effect on student attendance."

Discussion

There are both matches and mismatches when comparing faculty and student attitudes about the provision of lecture notes to students. Compared to faculty, students agreed significantly more that faculty should provide instructor lecture notes to students prior to class, and that overall class grades would improve for students. This student expectation of improved performance coincides with some of the empirical literature (e.g., Austin, et al., 2004; Cornelius & Owen-DeSchryver, 2008). Furthermore, students (more than faculty) reported that the provision of lectures outlines with blanks included for students to fill in would encourage students to come to class (Cornelius & Owen-DeSchryver, 2008, also found superior performance for partial notes). Faculty and students also mismatch in that faculty disagreed more than students that providing notes to students has no effect on student attendance. This mismatch of perceptions merely heightens the conflict that faculty experience in making a decision about instructor notes. The previous literature is clear (Kiewra, 1985a, 1985b; Knight & McKelvie, 1986) that students learn more from the process of reviewing notes compared to taking notes,

and students in this sample not only desire instructor notes but believe that instructor notes will improve their course performance. However, the faculty in this sample strongly disagree that providing instructor notes will have no effect on student attendance, but previous research (Brocato, 1989; Sleight et al., 2002) suggests that attendance is positively related to student performance and grades. Furthermore, providing lecture notes to students has been found to decrease attendance (Vandehey, et al., 2005). What is an instructor to do?

One compromise solution would be for faculty to provide handouts of lecture outlines that contain blank lines for students to fill in as they follow along in class, as has been done previously. This would require students to attend and take notes (as 83% of faculty prefer), and students agreed (see Table 3) that this strategy would encourage them to attend (although faculty responses were more skeptical about this perception). Faculty and students did concur

in their perceptions regarding the provision of lecture notes might cause some students (good students or struggling students) not to attend class. Students were clear in their preference for PowerPoint as a mechanism of delivering lectures, and faculty were clear in their expectations of students to take notes during class (the most frequent delivery mechanism of those notes being chalkboard/whiteboard and PowerPoint). Of course, all of the above results are limited due to the constraints of data collection at one institution. The institutional context may also be key; faculty are encouraged to engage in their own 'scholarship of teaching and learning' to investigate the impact of full and partial notes on their students' course performance and attendance. Ultimately, a one-size-fits-all solution may not apply, and the institutional context and instructional goals may dictate whether any advantage gained from providing notes to student outweighs disadvantages.

Table 3
Direct Comparison of Faculty and Student Perceptions

Item	Faculty <i>M</i> (<i>SD</i>)	Student <i>M</i> (<i>SD</i>)	<i>t</i> test
I believe that instructors should provide lecture notes to students prior to the class session.	2.60 (1.14)	3.96 (0.95)	-7.28*
Providing lecture notes to students before class causes some students not to attend class.	3.62 (1.02)	3.68 (0.91)	-0.35
Providing lecture notes to good students before classes motivates good students to attend class.	2.90 (0.95)	3.36 (1.01)	-2.52
Providing lecture notes to struggling students before class motivates struggling students to attend class.	2.79 (0.98)	3.16 (1.04)	-2.00
Overall class grade averages increase with the provision of notes before class.	2.71 (0.89)	3.54 (0.80)	-5.41*
Providing "blanks" in pre-made handouts encourages students to come to class.	2.75 (1.00)	3.72 (0.82)	-5.92*
Overall class grade averages are not affected with the provision of notes before class.	2.98 (0.98)	2.61 (0.80)	2.37
Providing notes to students before class has no effect on student attendance.	2.87 (0.97)	2.29 (0.92)	3.35*

Notes. *N* = 128. Above items were responded to using as scale 1 = *strongly disagree* to 5 = *strongly agree*. *indicates a significant difference, $p < .006$ (Bonferroni correction).

It appears that the lecture mode continues to be the dominant style of teaching for now. These results are helpful in understanding the nature of the conflicting expectations of faculty and students, but also suggest strategies that may lead to compromise solutions. Faculty members who believe in the strong connection between attendance and learning may be reluctant to provide instructor notes to students, believing that a downturn in attendance may be related to a reduction in student performance (although this downturn in performance might be minimized using an lecture outline/fill-in-the-blank approach). Faculty members who believe that student learning is facilitated by the generative processes of reviewing complete and accurate lecture notes may be encouraged to distribute instructor notes prior to lecture, and risk the potential drop-off in attendance. I encourage instructors to experiment with various pedagogical approaches, evaluate their effectiveness, share the results in a true 'scholarship of teaching and learning' environment, and adopt a teaching strategy that facilitates student learning above all else.

References

- Armbruster, B. B. (2002). Taking notes from lectures. In R. F. Flippo & D. C. Caverly (Eds.), *Handbook of college reading and study strategy research* (pp. 175-199). Mahwah, NJ: Erlbaum.
- Austin, J. L., Lee, M., & Carr, J. P. (2004). The effects of guided notes on undergraduate students' recording of lecture content. *Journal of Instructional Psychology*, *31*, 314-320.
- Bligh, D. A. (2000). *What's the use of lectures*. San Francisco, CA: Jossey-Bass.
- Brocato, J. (1989). How much does coming to class matter? Some evidence of class attendance and grade performance. *Educational Research Quarterly*, *13*, 2-6.
- Cornelius, T. L., & Owen-DeSchryver, J. (2008). Differential effects of full and partial notes on learning outcomes and attendance. *Teaching of Psychology*, *35*, 6-12. doi:10.1080/00986280701818466
- Dillon, K. M. (1998). Reasons for missing class. *Psychological Reports*, *83*, 435-441.
- Kakhnovets, R., & Terry, M. (2008, August). *The influence of providing instructor notes on student awareness*. Presented at the American Psychological Association, Boston.
- Kiewra, K. A. (1985a). Learning from a lecture: An investigation of notetaking, review and attendance at a lecture. *Human Learning*, *4*, 73-77.
- Kiewra, K. A. (1985b). Providing the instructor's notes: An effective addition to student notetaking. *Educational Psychologist*, *20*, 33-39.
- Kiewra, K.A., DuBois, N.F., Christensen, M., Kim, S-I., & Lindberg, N. (1989). A more equitable account of the note-taking functions in learning from lecture and from text. *Instructional Sciences*, *18*, 217-232.
- Knight, L. J., & McKelvie, S. J. (1986). Effects of attendance, note-taking, and review on memory for a lecture: Encoding vs. external storage functions of notes. *Canadian Journal of Behavioural Science*, *18*, 52-61.
- Sleigh, M. J., Ritzer, D. R., & Casey, M. B. (2002). Student versus faculty perceptions of missing class. *Teaching of Psychology*, *29*, 53-56.
- Stewart, R.A. (1989). Interaction effects of teacher enthusiasm and student notetaking on recall and recognition of lecture content. *Communication Research Reports*, *6*, 84-89.
- Van Blerkom, M. L. (1992). Class attendance in undergraduate courses. *Journal of Psychology*, *126*, 487-494.
- Vandehey, M. A., Marsh, C. M., & Diekhoff, G. M. (2005). Providing students with instructors' notes: Problems with reading, studying, and attendance. *Teaching of Psychology*, *32*, 49-52.
- Williams, R. L., & Eggert, A. (2002). Notetaking predictors of test performance. *Teaching of Psychology*, *29*, 234-237.
- Wittrock, M. C. (1990). Generative processes of comprehension. *Educational Psychologist*, *24*, 345-376.

Author Notes

I acknowledge the data collection assistance of Toni Hunt in completing this study.

Copyright of Journal of Instructional Psychology is the property of Educational Innovations and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.