

STUDENT PERCEPTIONS OF TEXTBOOK OUTLINES

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Students in an introductory psychology course evaluated 3 types of outlines (traditional, graphical, alphabetical) and then provided summary information about their use of outlines and rank ordered their preferred type of outlines. Over 75% of students agreed that outlines are useful, and students clearly prefer the traditional, Roman numeral-style outline. We discuss these results in the context of pedagogical aids in introductory psychology textbooks and the potential for these aids to influence student performance.

There seems to be a contradiction in the perceived value of chapter outlines in introductory psychology textbooks and the understanding of student perceptions of usefulness and value of chapter outlines. For instance, Marek, Griggs, & Christopher (1999), in a study of 37 introductory psychology textbooks, found that chapter outlines occurred in 100% of the texts; the only other feature identified equally often was boldfaced text. One might assume that such a pervasive feature, found in all textbooks in that sample, is an essential component of student learning. However, a number of studies examining the familiarity, use, and value of pedagogical aids (Weiten, 1988; Weiten, Degura, Rehmke, & Sewell, 1999; Weiten, Guadagno, & Beck, 1996) have found chapter outlines rated low compared to other features. Marek et al. (1999), in studying first-semester students, found modest ratings for chapter outline familiarity, probability of use, and value (ratings around 4 on a 1-7 scale). Gurung (2003) found that outlines were used the least and identified as least helpful in comparison with other pedagogical aids. With regard to faculty ratings of importance, Landrum and Hormel

(2002) found similar attitudes about chapter outlines; moderate levels of importance of chapter outlines for student learning and for textbook selection by faculty.

Thus, there appears to be a contradiction between the implied level of importance of chapter outlines (i.e., pervasiveness) and student and faculty opinions about chapter outlines. In studies involving multiple pedagogical aids, students tend to rate chapter outlines as not very useful or valuable. It should be noted, however, that there is good evidence for the benefits of students in creating their own outlines from text materials—see Tuckman (1994; 1998). Our goal was to examine student perceptions of chapter outlines, without the comparison to other pedagogical aids, in an attempt to resolve this contradiction. We presented students with three different types of outlines and asked them to evaluate the usefulness and preference for each outline. Following the evaluation of the individual outlines, we asked students (a) general, summary questions about outlines and (b) to rank order their preferences of the three outline types. Given that outlines appear to be a pervasive feature of textbooks that is not likely

to go away, perhaps a more detailed understanding of student preferences for chapter outline formats might lead to increases in usefulness and value.

Method

Participants

Students ($N = 157$) enrolled in an introductory course at a large Western university participated in this study as a means of fulfilling a course research experience requirement. Participants did not provide any identifying information in order to preserve anonymity.

Materials

Based on a Learning chapter from an introductory psychology textbook, we created three types of outlines for this study. The traditional outline used a Roman numeral-type organization, and followed the sequence of a typical Learning chapter. The graphical outline took the same information but transferred this information into multiple concept maps. Hence, relationships and connections between concepts were graphically depicted using drawings, lines, etc. The alphabetical outline was essentially a list of key terms as used in both the traditional and graphical outlines, but not matching the chapter sequence (i.e., alphabetical).

After the presentation of each outline, students were asked to answer the items presented in Table 1. Following the third (last) outline, students were asked to answer these four questions using a 1 = *strongly disagree* to 5 = *strongly agree* format: (a) I like using outlines when studying for a test; (b) I think using outlines prior to a test is a waste of time; (c) Outlines are

a good preview for what the author is writing about; and (d) I never look at the outline before reading the chapter. Finally, we asked students to rank order their preference for the three types of outlines with 1 = *most preferred*, 2 = *next preferred*, and 3 = *least preferred*.

Procedure

Students viewed outlines in a printed packet. Students studied each outline for a minimum of 5 min prior to proceeding to the set of questions following each outline (see Table 1). The presentation of outlines to students was counterbalanced for order. With 3 outlines, six possible orders exist. We presented each possible order to a minimum of 24 participants. After the third outline was presented, we asked students summary questions about outlines in general and then asked students to rank order their outline-type preferences.

Results

The order of presentation did make a difference in the agreement levels for the items presented in Table 1. For 6 of the 7 items (all except Item #3), there was a significant outline type (traditional, graphical, alphabetical) by outline order (6 orders) interaction. However, the pattern of means was nearly identical across these six interactions. In nearly every case, when the traditional outline was presented last in the order, traditional outline ratings were higher. This result may be due to students were expecting this type of outline. Concurrently, when the alphabetical (and sometimes graphical) outlines were presented first, those items rated first were rated lower than items occurring later in the

order (perhaps unexpected when expecting an “outline”). Taken together, it does appear that the order made a difference, but there is some regularity to size and direction of the order effect.

Preferences for Different Outline Types

Analysis of the items following the presentation of each type of outline is presented in Table 1. The pattern of means is clear; the traditional outline is preferred on every item, with statistically significant differences between the traditional outline mean and all other outline means. This conclusion must be tempered slightly with the detection of an order effect as described previously. However, given the magnitude of these differences, even accounting for the order effect does not detract from the consistent pattern of mean differences. For six of the seven questions, students prefer the graphical outline next most (with some statistical ties between the graphical and alphabetical outlines), except for the item regarding the ease of finding information (for that item students rated the alphabetical outline higher than the graphical outline).

Overall Perceptions of Outlines

Four questions were asked as summary questions following the presentation of each of the three outlines, using a scale of 1 = *strongly disagree* to 5 = *strongly agree*. Student response to “I like using outlines when studying for a test” was a mean of 4.00 ($SD = 0.8$) with 78.6% of students agreeing or strongly agreeing with that statement. Student response to “I think using outlines prior to a test is a waste of time” was a mean of 1.92 ($SD = 0.7$) with

3.2% of students agreeing with that statement (no one strongly agreed). Student response to “Outlines are a good preview for what the author is writing about” was a mean of 3.92 ($SD = 0.6$), with 79.8% of students agreeing or strongly agreeing with that statement. Student response to “I never look at the outline before reading the chapter” was 2.57 ($SD = 0.9$), with 17.7% of students agreeing or strongly agreeing with that statement.

Students also rank ordered their overall preference for type of outline with 1 = *most preferred* and 3 = *least preferred*. The traditional outline received 103 ‘most preferred’ ranks ($M = 1.39$, $SD = 0.6$). The graphical outline received 32 ‘most preferred’ ranks ($M = 2.10$, $SD = 0.7$). The alphabetical outline received 17 ‘most preferred’ ranks ($M = 2.50$, $SD = 0.6$). Comparing these rankings using a one-way within-groups ANOVA, there was a statistically significant difference, $F(2, 302) = 69.02$, $p < .001$. Post hoc analyses using LSD for main effects indicated that each group was significantly different from every other group.

Discussion

How we ask students about the value of chapter outlines influences the results. When we present outlines as part of a listing of possible pedagogical aids, chapter outlines receive a relatively low rating (Marek et al., 1999; Weiten et al., 1999); this effect may be due in part to contrast bias. However, when chapter outlines are studied alone, students appear to value chapter outlines. Over 75% of students agreed or strongly agreed with the statements “I like using outlines when studying

for a test” and “Outlines are a good preview for what the author is writing about.” Perhaps in this study, presenting one pedagogical aid for consideration led to overestimates of chapter outline performance, or perhaps this situation led to a clearer consideration of the value of chapter outlines and how students use them.

Students expressed a clear preference for the traditional, Roman numeral-type outline when compared to both graphical and alphabetical presentations. However, this conclusion must be tempered a bit by the discovery of order effects; students preferred traditional outlines even more than usual when the traditional outline was presented last in the sequence rather than first or second.

Understanding the role of pedagogical aids in student learning continues to grow in importance. Given the growth in the length of introductory psychology textbooks, it seems important to evaluate what features are valuable and in what format to best present those features. As study in this area continues, there may be mounting evidence for the discontinuance of certain features. For instance, Gurung (2003) found a significant negative correlation between student ratings of the helpfulness of key terms (analogous to the alphabetical condition in this study) and student performance. If some students over-rely on features included in an introductory psychology textbook, and that overreliance leads to poorer performance, then enhanced scrutiny is warranted regarding pedagogical aids and student performance. This study found that students value chapter outlines and prefer the

traditional format; however, outline preference was not studied in the context of actual course performance. It appears that more attention should be given to the study of pedagogical aids in general and their effect on student performance in particular.

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Author Note

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Table 1
Preference Score Means (Standard Deviation) for the Three Types of Outlines

Items	Traditional	Graphical	Alphabetical	Main Effect <i>F</i> value
I like the format of this outline.	4.00 ^a (0.9)	3.05 ^b (1.2)	2.52 ^c (1.1)	70.61
I would use this outline to study for a test.	3.93 ^a (0.9)	2.99 ^b (1.3)	2.56 ^c (1.2)	53.01
I can find topics easily using this outline.	3.92 ^a (0.9)	2.94 ^c (1.1)	3.35 ^b (1.2)	27.43
This outline is organized in the way I like to organize things.	3.79 ^a (1.1)	2.61 ^b (1.1)	2.38 ^b (1.1)	70.90
I would look at an outline like this prior to reading the chapter.	3.80 ^a (0.9)	2.87 ^b (1.2)	2.47 ^c (1.1)	62.66
The organization of this outline makes sense to me.	4.14 ^a (0.8)	3.36 ^b (1.1)	3.18 ^b (1.2)	37.99
If chapter outlines were organized like this one, I would use outlines more often.	3.66 ^a (1.0)	2.69 ^b (1.2)	2.32 ^c (1.0)	66.97

Notes. $N = 157$. Participants rated these items from 1 = *strongly disagree* to 5 = *strongly agree*. Means with different superscripts are significantly different, Tukey's post-hoc, $p < .05$