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To Lecture or Let Go: A Comparative Analysis of Student Speech Outlines from Teacher-Centered and Learner-Centered Classrooms

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During recent years, some college classrooms have moved away from traditional teacher-centered lecture pedagogies toward learner-centered strategies. Relatively little empirical evidence exists to date assessing the utility of such pedagogies. This exploratory study examined the content and structure of student speech outlines from teacher-centered, lecture-based classes and from learner-centered discussion and experiential-based classes that implement Kolb's (1984) cycle of experiential learning. The results of this examination suggest that students in learner-centered environments do create better outlines than students in teacher-centered, lecture-based classrooms. Future studies should test the generalizability of these results on larger student populations and across curricula.

Keywords: Learning styles; Assessment; Public speaking; Pedagogy

A movement away from traditional teacher-centered toward learner-centered classrooms has been growing among college teachers across the United States (Brookfield, 1990; Royse, 2001). Business and industry leaders are fueling this trend as they seek to hire college graduates who can transfer book knowledge to real world applications (Brown, 2004; Duch, Groh, & Allen, 2001). More specifically, the business world requires flexibility and adaptability in a fast-paced environment. Critical thinking, creativity, and elasticity are crucial characteristics necessary to be competitive in the twenty-first century economy (Ackerman, Gross, & Perner, 2003). These skills can be difficult to foster in a traditional lecture-based classroom, hence the move toward learner-centered classrooms.

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Fundamental pedagogical differences exist between teacher-centered and learner-centered classrooms. In traditional college classrooms, the focus is on the teacher and students are expected to adapt to the instructor to be successful (Fatt, 2000). However, as Mottet, Beebe, and Fleuriet (2006) point out, "teachers may not always make pedagogical decisions that are in the best interest of their students' learning" (p. 146). Part of this problem is instructors' overemphasis on rhetorical goals in the classroom. A rhetorical, or teacher-centered, perspective is used "to get others to do what you want or need them to do and/or think the way you want or need to them to think" (McCroskey & Richmond, 1996, p. 234). Thus, instructors attempt to influence students to learn in the method the instructor prescribes (Mottet, Frymier, & Beebe, 2006). This rhetorical goal coincides with a teacher-centered, lecture-based method of instruction (Chall, 2000). Guskin (1997) describes the teacher-centered learning environment that most students experience as one where "faculty talk and most students listen," and that "is contrary to almost every principle of an optimal student learning setting" (pp. 6–7).

In contrast, a learner-centered approach suggests shifting the focus to "student learning rather than teaching in order to improve students' college experiences" (Huba & Freed, 2000, p. 3). McCombs and Whistler (1997) describe learner-centered education as:

> the perspective that couples a focus on individual learners (their heredity, experiences, perspectives, backgrounds, talents, interests, capacities, and needs) with a focus on learning (the best available knowledge about learning and how it occurs and about teaching practices that are most effective in promoting the highest levels of motivation, learning, and achievement for all learners). This dual focus, then, informs and drives educational decision-making. (p. 9)

The goal of learner-centered education is to shift the focus from teachers to students. Lukinbeal et al. (2007) reinforce this belief, saying, "Teachers should not be positioned as the 'active agent' and students as 'passive vessels,' but rather the classroom is a site of dialogue and a location where new knowledge is created through interaction" (p. 34). In sum, "the way teachers teach should match the way students learn" (p. 31) and teachers should adjust "their teaching strategies" to accommodate multiple learning styles (de Jesus, Almeida, & Watts, 2004, p. 534).

This shift toward learner-centered teaching, however, may be resisted by some faculty until they are convinced of this approach's utility over traditional "chalk and talk" methods (Budd, 2004, p. 35). Because relatively little empirical research has been published to date, genuine skepticism exists about the merit of such decentralized teaching. Spending precious class time on discussions and application-oriented activities means less time for covering important content in a lecture. Therefore, the possibility exists that covering less material in lecture could result in students who perform less successfully by semester's end. Hence, further development of the body of research comparing student achievement when taught in teacher-centered versus learner-centered classrooms is warranted.

Teachers tend to teach as they were taught and most college teachers were taught in traditional teacher-centered classrooms. Certainly, not all classrooms are completely

teacher-centered, and many teachers may incorporate learner-centered elements of instruction into their classroom. However, expecting teachers to create a learner-centered environment without providing them with a learner-centered pedagogical method may be unrealistic and unfair. One such method that does "match the way students learn" (de Jesus et al., 2004, p. 534) in college classrooms is based on the cycle of learning as conceived by David Kolb (1984).

Kolb argues that "learners, if they are to be effective, need four different kinds of abilities" (1984, p. 30). Kolb's four-stage cycle of learning model allows teachers to engage students in these four types of abilities. His model consists of "concrete experience abilities (CE) [feeling], reflective observation abilities (RO) [watching], abstract conceptualization abilities (AC) [thinking], and active experimentation abilities (AE) [doing]" (p. 30). For learners to engage in concrete experience, they must engage in new experiences. They must be able to observe their experiences (reflective observation). Learners must be given opportunity to develop concepts and theorize from them (abstract conceptualization), and finally, must be able to use their theories to solve problems they encounter in class (active experimentation).

The cycle of learning theory suggests that all people naturally learn best when they experience concepts in ways that round the entire cycle. Therefore, for students to be able to develop the four abilities that Kolb outlines, teachers should focus on rounding the cycle of learning to create an effective learner-centered environment for students; and to that end, lesson plans should include something for each of the four learning cycle stages (see Figure 1). Since college classrooms in the United States have historically been dominated by the traditional teacher-centered approach, the preference in academic settings has been for Stage 2 (organized lecture that outlines the important concepts with visual reinforcement such as use of the board, overheads, or PowerPoint) at the expense of addressing the other three stages.

Traditional teacher-centered instruction places emphasis on the instructor distributing knowledge to students. The primary technique used in the classroom is lecturing, that is, defining key concepts, giving examples, explaining relationships, and demonstrating skills. While some discussion may occur, the focus is primarily on the teacher asking questions and students responding to them rather than on

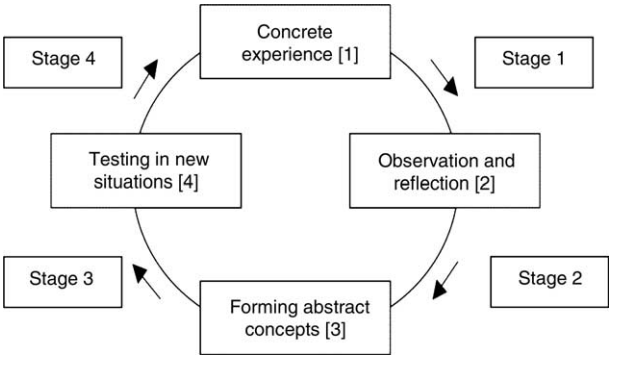

Figure 1 Kolb's four-stage cycle of learning

student-to-student interaction. Learner-centered instruction still incorporates some lecturing as it addresses Stage 2 of the cycle; however, the teacher is careful to round the cycle of learning by balancing time with the other three stages. For example, Stage 1 could be addressed through reflective observation, journaling about experiences, role-playing, and group discussions. Teachers can attend to the Stage 3 by asking students to apply concepts to solve real problems, exercise skills by practicing, and test theory through observation outside of class. And the instructor can address Stage 4 by employing active experimentation and testing, asking for critiques of samples, and prompting people to share applicable life experiences. Learner-centered instruction may also employ simulations, games, service learning, field study, peer teaching, group projects, stimulating visual aids, and problem-based learning (see Cranton, 2000).

To date, relatively little empirical research has been published in communication comparing the quality of student work in learner-centered and teacher-centered classrooms. Moreover, a paucity of research has been conducted in the basic public speaking classroom. Hence, this study seeks to answer the following research question:

RQ: How does the quality of speech outlines compare between students taught in teacher-centered, lecture-based classrooms and students taught in learner-centered classrooms that incorporate Kolb's cycle of learning?

Method

Artifacts

One hundred and fifteen ($N = 115$) formal speech outlines were collected from instructors at three Midwestern universities. A content analysis was conducted to evaluate the quality of persuasive speech outlines from basic public speaking courses at these universities. Interviews were conducted with all teachers to ensure that the intended manipulation was actually implemented in each class as indicated. Teachers were trained about the differences between teaching styles, and were asked to confirm, for each section, that the method he or she used was teacher-centered or learner-centered instruction.

All instructors at each university indicated that they teach the same outline format (the same structure and content elements), and require students to include the subsequent outline elements in their formal speech outlines. Each of the instructors used the same textbook and supplementary workbook. Both the text- and workbook provided samples of appropriately constructed outlines. The workbook also included templates that students could use when constructing their own formal outlines. Because all instructors required the same outline elements, coders could not discern the differences among outlines from different universities based on the appearance or format of the outline. Therefore, the appearance of the student outlines did not serve as an inadvertent identifier to bias the results. Furthermore, names and other

identifying information were omitted by all instructors before submitting the outlines for analysis.

A persuasive speech was chosen for examination because students completed the speech late in the semester. By this point, all students should have had ample opportunities to refine their outlining skills. All students were required to submit a formal outline for this speech.

Procedure

Once Institutional Review Board approval was attained, outlines were collected from instructors at one university where teachers are trained to plan lessons that round Kolb's (1984) cycle of learning as described by Sellnow (2003). All teachers in the study had attended a weekly one-hour meeting to ensure consistency in evaluating and grading both speeches and outlines. In these meetings, teachers were trained to round the cycle of learning for each lesson they taught. These teachers were provided with sample lesson plans, activities, group discussion topics, and assignments that could be used or modified to promote rounding Kolb's experiential learning cycle. Specifically, to allow students to engage in concrete experience (feeling), instructors were trained to teach by using examples, personal stories, inclusivity, and humor. To address reflective observation (watching), instructors were trained to use effective visual aids, vivid descriptions of material that foster mental imagery creation, and nonverbal expression. Instructors were taught to address abstract conceptualization (thinking) by providing evidence such as facts and statistics, speaker credibility, and clarity in explanation of course concepts. Finally, to address active experimentation (doing), instructors learned to develop and utilize effective course activities in which students could apply their knowledge in course projects.

The outlines collected from the other two universities were from professors who reported that they teach in a traditional teacher-centered lecture style. These instructors indicated that they do not engage students in other means of learner-centered instruction. Specifically, these instructors indicated that, like the historical teacher-centered approach, they teach primarily to Stage 2 of Kolb's model (see Figure 1).

Based on the outline formats that all instructors required, the researchers agreed upon 14 common categories for structure and nine common categories for content. These criteria reflected the grading standards used by all included instructors so that potential differences in outlines were not due to variability in the content of the courses. Structure and content were coded according to the presence or absence of specific elements detailed in these criteria. Thus, coding for presence or absence of elements allowed grading criteria to be used as a summated rating scale with subscales for structure and content. The 14 categories for structure were the following: attention catcher, listener relevance, speaker credibility, thesis statement (a statement of the central idea of the speech), preview (a one-sentence overview of each main point in the speech), format, transitions, thesis restatement, main point summary, clincher, persuasive punch words, inclusive language, evocative language,

and connectives. The nine categories for content were the following: breadth, depth, listener relevance, types of supporting material, citations in bibliography, oral citations, ethos, pathos, and logos.

Cronbach's alpha was used to test the reliability of the structure, content and combined scales. Cronbach's alpha for the structure scale ($\alpha = .812$) and the content scale ($\alpha = .712$) were acceptable. Cronbach's alpha for the overall scale was also satisfactory ($\alpha = .860$).

Prior to coding the outlines, the three researchers independently coded a set of 10 sample outlines to determine intercoder reliability. Each researcher coded both the structure and content elements. Scott's pi was used to evaluate inter-coder reliability, and the result was acceptable ($\pi = .71$). The researchers then continued independently to code the remaining outlines.

Data Analysis

An independent samples t-test of the composite scores was conducted to answer the overall research question (teacher-centered classes × learner-centered classes). Mean scores of content and structure were also examined in this way. Levene's test for homogeneity of variances was conducted to test the assumption that samples from each population vary similarly. For the variable *content*, classes were found to be sufficiently homogeneous in variance, $F\ (1,\ 90) = 1.600$, $p > .05$. For the variables *structure* and *combined*, sections were not found to be homogeneous in variance, $F\ (1, 96) = 4.183$, $p < .05$; $F\ (1,\ 90) = 3.993$, $p < .05$. Thus, when analyzing the data from these two variables, equal variance was not assumed.

Results

Independent sample t-tests were conducted to test for significant differences between the mean scores of outlines in the learner-centered and the teacher-centered classrooms. Comparisons were made between these class types and scores for content and structure, as well as the combined overall score.

The difference in the mean scores for structure between the class types was found to be significant, $t(96) = -6.565$, $p < .001$ assuming unequal variance, $\eta^2 = .274$, power (observed) = .97. Structure scores were higher in classes that rounded the cycle of learning ($M = 11.526$, $SD = 2.214$) compared with traditional learning environments ($M = 7.216$, $SD = 3.690$). The maximum score for structure was 14. The average student in a learner-centered class received 11.526 (82.3%) compared with 7.216 (51.5%) in teacher-centered classes. The effect, size, and comparison of means suggest that the observed difference was substantive.

The mean score difference between class types for content was also significant, $t(90) = -7.805$, $p < .001$ assuming equal variance, $\eta^2 = .361$, power (observed) = 1. The results again indicate a substantive effect size. Students in classes where teachers round the cycle of learning tend to receive higher scores on content ($M = 6.917$, $SD = 1.726$) when compared with teacher-centered sections ($M = 4.027$, $SD = 2.021$). The

average student in a learner-centered class received 76.9% of the possible nine content points. The average member of a traditional class earned 22.5% of the points.

The composite variable (structure and content combined) was also found to be significant, $t(90) = -7.745$, $p < .001$ assuming unequal variance, $\eta^2 = .357$, power (observed) = 1. Again, the effect size was substantive. The overall scores were lower in teacher-centered courses ($M = 11.243$, $SD = 3.342$, 48.9% of the total 23 points) compared to learner-centered courses ($M = 18.375$, $SD = 5.063$, 79.9% of the points).

Discussion

The results of this analysis indicate that significant differences did, in fact, exist between the quality of outlines prepared by students in learner-centered and teacher-centered public-speaking classrooms. Students in learner-centered environments had higher scores for both content and structure and, as a result, their overall scores were much higher. The difference between means was seven points when the highest overall score was 23. For comparison, if the scores represented grades, the average student in a learner-centered class received a C+ or B− for the outline, while the average student in a teacher-focused class received a failing grade for the assignment.

This work complements previous research by Kolb (1984), Brown (2004), and Budd (2004). The results indicate that students taught in ways that round the entire learning cycle perform more successfully in the speech-development process than their counterparts taught in a traditional lecture-based classroom. This important knowledge can be used in a variety of ways to expand the understanding of learning styles and their impact on academic outcomes.

Based on the findings, we propose several suggestions. First, academic departments should assess the extent to which student learning styles are accommodated in their programs. Courses should be redesigned to support the inclusion of Kolb's (1984) learning cycle. For example, classes that currently rely solely on the lecture method of instruction could be adapted by incorporating group discussion and relevant activities.

Second, teacher training for new and seasoned teachers should be made available. The traditional teacher-centered lecturing model (Brookfield, 1990) does not help all students to learn effectively. Along with instruction about incorporating student-based approaches to teaching, training sessions could serve to educate experienced teachers of the benefits of learning-style specific instruction.

Limitations and Future Research

This research focused on the impact that adapting teaching strategies to learning styles had on formal outlines for a public speech. The work did not assess speech delivery. Therefore, further research should be conducted in the area of learner-centered instruction and its impact on speech delivery. Further research could build on this knowledge of the impact of rounding the cycle of learning, not only on the speech-development process but also on the oral delivery of a speech.

This study relied on a relatively small sample from three universities' basic public speaking courses. Although the sample did allow for sufficient power, to aid in application and generalizability, future research should be conducted with a larger sample and in different contexts. This additional work could also serve to further demonstrate the positive impact that learning-style adapted instruction has on student performance.

The intent of this study was to compare the quality of formal speech outlines based on teaching style. Differences among students based on demographics were not identified. Future studies might test for such variation and analyze the impact on theory and practice.

For this study, participating instructors were asked to self-report whether they used a primarily teacher-centered or learner-centered approach in the classroom. Although all teachers had sufficient knowledge of Kolb's (1984) experiential learning cycle to be able to determine if they used this approach, the researchers did rely on teacher self-reports, and doing so is a limitation.

While some instructors indicated that they did not purposefully integrate Kolb's model into their classroom, some learner-centered elements could have been incorporated into their teaching. While this study treated learner-centered versus teacher-centered instruction as a dichotomous variable, the focus of teaching varies by degree and can change from day to day. The dichotomy delimits the study as the researchers could not measure the degree to which teaching was student-centered. The overall approach to instruction, however, could be reasonably determined. Future studies should explore the degree of being learner-centered as a continuous variable.

Finally, although the researchers did discuss the potential grade differences between teacher-centered and learner-centered instruction, this study did not evaluate the actual grades students received on their speech outlines. Thus, further research should investigate the relationship between implementing Kolb's experiential learning cycle and student speech grades.

This study demonstrates that teaching to diverse learning styles by rounding the cycle of learning does not hinder the quality of speech outlines and, in fact, suggests that doing so may result in better speech outlines. Therefore, as educators, we can no longer default to teaching how we were taught. Although exploratory, this study suggests that moving from teacher-centered to learner-centered instruction does not sacrifice course content or integrity. Rather, such strategies may produce better student outcomes with regard to speech outlines. Fostering students' ability to apply course content successfully is a high-priority goal that may be better achieved in a learner-centered environment.

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