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BOOKLET

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عمادة تطوير المهارات

إنجاز متميز .. والتزام بالتطوير

Effective Lecturing

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Effective Lecturing

Only 100 years ago, it would have been much easier to write this booklet. After all, the gold standard for teachers in college courses at that time was the lecture, and these "old school" lectures focused only on information transmission through the spoken word, rather using colorful visual aids, movie clips, entertainment, and student engagement as a part of the lecture (Benjamin, 2002). Mental images associated lecturing in college are readily accessible and usually based on past conceptions of what a lecture is. We can visualize a person standing toward the front of the room talking about research findings and historical developments within their chosen area of expertise. The room most likely includes students with their notebooks out and pens moving rapidly across the notebooks. Many of us could easily imagine students checking the clock frequently, yawning and doodling in their notebooks. In short, college lecturing has been viewed historically as a way to pass information along from expert to novice, from speaker to listener. Only in the last several decades has considerable attention been devoted to the art of lecturing, the part of the "performance" that can make information transfer more memorable and more enjoyable (Benjamin, 2002).

Benjamin (2002) put the lecture in historical context. Today, youth are exposed to a number of aesthetically pleasing and readily available sources of information. Whether it be the Internet, magazines, or movies, information is available to youth in a way that makes it easier to maintain their attention and interest. Asking our

students who live in a flashy and fast-paced world to sit and listen to a monotone expert rattling off research findings, and then expect them to remember and use the material in the future, seems unreasonable. Lecturing in the 21st century demands that the professor give attention to "performance" factors used to maintain the attention of our students long enough for lasting learning to be possible.

In this booklet, I will define lecturing and outline factors shown through research to be related to successful lecturing. When warranted, examples and stories I provide to bring some rather esoteric concepts to life.

What is Lecturing?

According to many scholars of teaching, lecturing is the most common method used to teach students in college courses. In fact, upwards of 80% of college instructors have noted that lecturing represents their primary strategy for teaching students during class time (Benjamin, 2002). There are multiple variations on techniques and strategies utilized by teachers when lecturing. Korn & Sikorski (2010) outlined the vagueness of the lecturing concept when defining lectures as "a heterogeneous collection of class presentations or teacher-centered techniques" (p. 73). In short, it would seem that college lecturing is common and involves a teacher passing information on to students through any number of strategies. Perhaps our stereotypes of the monotone and stationary professor reading off their notes to a classroom full of bored students is unreasonably restrictive and merely a remnant of the past. In fact, there appear to be a number of options available to professors should they wish to maximize student learning in the classroom through the delivery of lectures.

Effective Lecturing

Traditional lectures have a bad reputation for being boring, monotonous, and suited more for information transfer to actively engaging students with the material. There are many methods for delivering lectures and it would appear that the literature supports the notion that students learn more from "lectures" or other teaching techniques when active engagement with the material is stressed (Bligh, 2000). Not only are more active learning techniques attention grabbing, but they also appear to force the student to actively engage with the material, rather than being passive recipients of knowledge (Korn & Sikorski, 2010; Sikorski & Keeley, 2003).

Below I summarize the literature regarding ways that instructors can facilitate

lasting learning in students through lecturing. Of course, any attempt to review all the factors related to successful lecturing would prove fruitless. As such, I review three factors that I find to be most closely associated with the delivery of thought provoking and attention grabbing lectures to students.

Lecturing with Passion and Enthusiasm

As many effective teachers suggested, staying genuinely excited and invested in the teaching of the material you teach is an important ingredient for success in the classroom (Halonen, 2002; Johnson, 2002; Korn & Sikorski, 2010; McKeachie, 1999). Because it would be exhausting to try to manufacture presence and passion if you disliked your job, I suggest that it would be impossible to hate teaching and model genuine passion and presence during lectures. With that said, many master teachers who enjoy their jobs, but occasionally suffer some degree of burnout or stress, have emphasized that there are things you can do to bolster passion and remain present during an effective classroom lecture.

McKeachie (1999) wisely noted that professors can intentionally choose to include at least one topic or one story in their lectures that they feel passionate about as an individual person or an individual researcher. In taking this step, there would appear to be no need to fake presence and/or passion. For example, Jim Korn, a retired master teacher, noted how he has typically asked students to form groups and attempt to diagnose an anxiety disorder that he attempts to act out while students ask questions for clarification (Korn & Sikorski, 2010).

In contrast, Benjamin (2002) recalled the story of an anthropology teacher he had who would routinely cry and occasionally express feelings of frustration during class lectures. This teacher was a tough grader, and rarely gave out grades of "A" in his classes, yet his classes always filled up each academic term. Students were riveted by the emotionally-laden lectures that provoked thought and made students think about their own places in the world. With this expression of honest and open emotion, this teacher shared his passion and excitement for his subject matter with his students. In turn, his students passionate as well.

For me, I realize that teaching the research methods sequence at my university can be a particularly draining experience. The act of repeatedly reviewing computer-based statistical analyses, and stressing the importance of structure and conciseness in writing to seemingly no avail, can bring even the most energetic of instructors to their limits. As such, a trick I have learned is to use the analyses from my own

program of research as examples during lectures. Of considerable consequence for presence, it is not uncommon for a student to offer an idea or thought during class that I had never even considered regarding how my research might be improved. As such, though I have reviewed statistical analyses for what feels like a million times, the hope for garnering new ideas and new directions from fresh faces can be invigorating and facilitate the delivery of energetic and enthusiastic lectures.

Finally, when it comes to enthusiasm, it is important to feel comfortable being open to where questions and discussions take you in the classroom, even if you have a set plan that you would prefer to follow in delivering your lecture (Halonen, 2002). Johnson (2002) made an excellent point about lectures when asking professors to consider how it might feel to a student when teachers refuse to answer one of their questions because the lecturer has other facts that they have to cover in the allotted time. Benjamin and I agree that this type of response might leave a student feeling frustrated or dismissed, especially if they had been pondering the material and arrived at this question after much deliberation and forethought. Learning is rarely linear, and although lecturers often have set agendas for learning that are important, students also have learning goals that they wish to accomplish. To halt to a student's own individual search for meaning out of the material would represent a grave injustice, as this student was influenced enough b**y** the lecture to apply it to their own lives and their own individual learning agenda (Sikorski & Keeley, 2003).

Be knowledgeable and Be prepared

When both teachers and students have been queried regarding those behaviors exhibited by teachers who are most closely associated with judgments of success and competence, behaviors associated with being knowledgeable and prepared for class are most highly rated (Buskist, Sikorski, Buckley, & Saville, 2002). When it comes to delivering effective lectures, the importance of knowing your topic and being prepared to deliver the information accurately, while simultaneously emphasizing performance factors, cannot be overestimated. Although it would be impossible to create a rating system regarding who is most suited to "being knowledgeable" on a particular topic, a more fruitful avenue to follow in maximizing student learning through our lectures is to discuss ways to be most prepared to deliver what we know.

When it comes to the busy college classroom, there are many issues that need to be addressed in order to be most prepared to deliver an effective lecture. Incorporating riveting stories that set the stage for the absorption of the big picture message that the lecturer is trying to communicate can prove most effective. For instance, I find it

most useful to start with real-world stories. One example in today's day and age that I believe students find particularly riveting is the manner by which Jenny McCarthy, a former model and parent of an Autistic child, has incorrectly interpreted research findings in the area of Autism Spectrum Disorders to suggest that vaccines cause symptoms of these neurodevelopmental disorders. In gradually reporting her beliefs, using her own clips from the media, it is much easier to help students absorb facts around biases and judgments that really can and do influence vulnerable populations of people. Students are often left shocked by the manner in which research findings were misinterpreted in this area, and how these misinterpretations has influenced some parents to deny their children life saving vaccines in hope of preventing them from developing symptoms of Autism Spectrum Disorders. In short, our society is chock full of attention-grabbing stories that, when incorporated into a lecture, provide a backdrop by which students are more readily able to remember important definitions and facts relevant to your topic of focus during a lecture.

Korn and Sikorski (2010) suggested that preparation for lectures should involve a multi-step process. First, a teacher is advised to think about the facts that are most important to present to students. Next, the information should be organized in a hierarchical structure that is best suited to promoting student interest and allowing students to put pieces of the knowledge together surrounding each topic to be presented. Sometimes, reviewing the material across any discipline in a chronological manner simply does not make sense to individual students. Rather, sometimes presenting the knowledge on a topic using pros and cons lists or telling the story of the evolution of knowledge through the eyes of one important historical figure in the field is more effective. Johnson (2002) suggested the use of *micro-lectures*. In short, he breaks complex topics into sections, delivers information pertaining to each area through the use of 10 minute lectures and then uses discussions and class activities to break up some of the monotony associated with lengthy lectures. After all, research suggests that students in college maintain their focus and attention during lectures for only about 10-15 minutes (McKeachie, 1999). To conclude the lecture preparation, it is imperative not to forget to consider how best to make your presentation eye catching. Demonstrations, class discussions, video clips and even guest speakers could serve the purpose of keeping students engaged.

Using Technological Resources

Given that our students live their lives in a technologically sophisticated culture requires us as teachers to adjust to that culture in our teaching. Although many of us

are not as technologically sophisticated as our students, the opportunity to learn about technological innovations and implement them in the classroom can not only facilitate student successes, but also bolster our own sense of passion and focus as teachers.

In today's day and age, there are a variety of technological innovations used to facilitate student learning. An attempt to summarize these innovations is essentially useless, as the technology seems to be changing on a day-to-day basis. With that said, PowerPoint slides and the use of *YouTube* videos are widely used by professors and can often provide a visually engaging context for the information presented during lectures. There is even some evidence to suggest that having multiple screens used to broadcast multiple types of information relevant to a single lecture being delivered can result in students learning more about the topic overall and reporting greater satisfaction levels associated with the lecture (Lanir, Kellogg, Booth, & Hawkey, 2010).

In addition, even when attempting to teach what many students consider to be the driest of courses in their disciplines, research methods, there are a number of technological advances available to foster student learning. In fact, the one professional organization has recently published five *screencasts* that guide students in learning to implement a variety of specific types of statistical tests in relevant research-based scenarios (http://www.teachpsychscience.org). These resources, which are free to the public, include the presentation of a detailed research problem and data to be analyzed by students. Then, it guides students in completing the tutorials through diagrams and visual supplements and the voice of a teacher who explains the process by which one might arrive at correct answers for each individual problem encountered. These screencasts are interactive and designed to provide specific types of feedback for students experiencing specific types of problems. In short, it is likely that these types of hands-on technological resources represent the future of college lecturing. These types of technological innovations also are associated with more prominent learning gains and higher ratings of satisfaction from students.

There is much evidence to suggest that using technology in the classroom is valued by students. In many cases, technological resources facilitate student learning. However, Hardin (2007) noted that the mere act of constructing colorful and interactive PowerPoint slides or finding the most vivid and riveting *YouTube* videos is not enough. Rather, these visual aids must be carefully incorporated into a well rehearsed and factually relevant lecture. Without the lecture, visual aids are merely interesting , funny or disturbing, and not tools used to facilitate the learning of important lessons relevant to the subject we are assigned to teach our students.

Summary

This booklet emphasizes the following key points about the lecture:

- The manner by which lectures are viewed across disciplines has changed dramatically in the last three decades.

- "Performance" factors are considered to be as important, or nearly as important, as the information that is being passed from teacher to learner during lectures.

  The importance of performance factors are best understood historically, as students are now exposed to information presented to them quickly and in eye catching ways. As such, lectures should include more than just well researched information. Rather, lectures must include built in strategies to garner attention from students and facilitate more complex cognitive processing.

- Although impossible to review the entire literature pertaining to the factors most closely linked to effective college lecturing, an attempt is made to review the literature pertaining to three of the most potent predictors of effective lecturing:

  - Being passionate and enthusiastic about teaching.

  - Being knowledgeable and being prepared.

  - Using technological resources effectively.

References

- Benjamin Jr., L. T. (2002). Lecturing. In S. F. Davis & W. Buskist (Eds.), *The teaching of.*

- *psychology: Essays in honor of Wilbert J. McKeachie and Charles L. Brewer* (pp. 57-67).

- Mahwah, NJ: Erlbaum.

- This book chapter offers a concise review of factors shown to be related to effective lecturing. The chapter is effective in reviewing the history of views toward lecturing, as well as ways that a professor can improve their lecturing skills in order to maximize student learning.

- Bligh, D. (2000). *What's the use of lectures?* San Francisco, CA: Jossey-Bass.

- This book provides a comprehensive review of the purpose of using lectures in teaching students in college courses. Aspects of college lectures that have been shown to be associated with enhanced learning in college students are highlighted and discussed.

- Buskist, W., Sikorski, J. F., Buckley, T., & Saville, B. K. (2002). Elements of master teaching. In S. F. Davis & W. Buskist (Eds.), *The teaching of psychology: Essays in honor of Wilbert J. McKeachie and Charles L. Brewer* (pp. 27-39). Mahwah, NJ: Erlbaum.

- In one of the most influential writings in the field devoted to teaching in college, student and professor views regarding the most important behaviors exhibited by effective college teachers are reviewed and discussed.

- Fallon, M., Sikorski, J. F., Horowitz, S., Bowman, L., & Patton, A. (2010, 03 November). *Screencast tutorial for descriptive statistics (Catherine's Study)* [Screencast]. Retrievedfrom http://www.teachpsychscience.org.

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- Fallon, M., Sikorski, J. F., Horowitz, S., Bowman, L., & Callahan, K. (2010, 03 November). *Screencast tutorial for t-test for independent means (Amanda's Study)* [Screencast]. Retrieved from http://www.teachpsychscience.org.

- Fallon, M., Sikorski, J. F., Horowitz, S., Bowman, L., Callahan, K., & Patton, A. (date). *Screencast tutorial for one-way between-participants analysis of variance (Mason's Study)* [Screencast]. Retrieved from http://www.teachpsychscience.org.

- The screencasts created and published by Fallon et al. (2010) represent engaging resources for students to utilize in mastering courses related to research methodology. In short, student are guided through a visually stimulating exercise outlining all the steps associated with completing specific types of statistical analyses. These video clips are supplemented by the voice of a teacher who explains how students should have thinking about the question in order to achieve maximum rates of success.

- Halonen, J. S. (2002). Classroom presence. In S. F. Davis & W. Buskist (Eds.), *The teaching of psychology: Essays in honor of Wilbert J. McKeachie and Charles L. Brewer* (pp. 41-55). Mahwah, NJ: Erlbaum.

- This book chapter provides a thorough review of referents associated with the display of 'presence' during the course of delivering lectures and guiding discussions in college courses. Personality factors, behaviors and pedagogical innovations consistent with the display of 'presence' as a college professor are examined and reviewed.

- Hardin, E. E. (2007). Presentation software in the college classroom: Don't forget the instructor. *Teaching of Psychology, 34*, 53-57.

- While the importance of using technology in college classrooms represents a viable goal for all instructors of college courses, this article highlights the importance of continuing to deliver factually sound and engaging lectures to serve as the centerpiece of supporting technological materials.

- Johnson, D. E. (2002). Teaching, research and scholarship. In S. F. Davis & W. Buskist (Eds.), *The teaching of psychology: Essays in honor of Wilbert J. McKeachie and Charles L. Brewer* (pp. 153-162). Mahwah, NJ: Erlbaum.

- This book chapter outlines how the concept of scholarship in academia has been broadened in recent decades to include research designed to improve teaching technologies and explicate how educators plan to intervene to facilitate student success in college. In short, the chapter suggests that psychologists are in a unique position to utilize their expertise in cognitive, emotional and behavioral factors to uncover the most effective ways to impart knowledge to students.

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- Korn, J. R., & Sikorski, J. F. (2010). *A guide for beginning teachers of psychology.* Retrieved from http://www.teachpsych.com/resources/e-books/guide2010/index.php.

- This book was designed for beginning teachers. The volume is devoted to a number of issues important to facilitating student successes in and out of the classroom. For instance, chapters on delivering effective lectures, managing classroom discussions and developing a philosophy of teaching are featured. In addition, other chapters in this volume are devoted to documenting the successes of the professor in order to increase their chances of obtaining promotion and tenure. Toward this end, chapters on developing a teaching portfolio and landing a teaching job in academia are featured.

- Lanir, J., Booth, K. S., & Hawkey, K. (2010). The benefits of more electronic screen space on students' retention of material in classroom lectures. *Computers and Education, 55*, 892-903.

- This experimental study determined that including two streams of visual aids resulted in greater learning gains for students compared to the provision of only one stream of visual aids. This research is important in explicating how both the type and amount of visual aids can serve to facilitate student learning in college courses.

- McKeachie, W. J. (1999). *McKeachie's Teaching Tips: Strategies, research and theory for college and university teachers* (10th ed.). Boston: Houghton Mifflin.

- This book, across multiple editions, is widely considered to be the most influential work ever published to explicate the factors most closely linked with effective college teaching. Chapters focus on assisting the college professor in developing useful strategies for managing a number of challenging situations, students and professional development challenges associated with being a college professor.

- Sikorski, J. F., & Keeley, J. W. (2003). Teaching to influence. *Psychology Teacher Network, 13,* 2-4.

- This brief article outlines ways for teachers to implement strategies consistent with the scholarship of pedagogy to improve their performance as instructors in the classroom.