



# Scholarly Teaching

## Doing What Works!

### Dusting Off the Cobwebs Activity

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Research shows that learning is incremental (Goswami, 2008). As professors, if we help students activate prior knowledge before introducing new information, we will increase the likelihood of students learning the content. The reason that activating prior knowledge helps us learn better is because this process helps us make neural connections to content we have already stored in our long-term memory. These connections make it more likely for the new content to make its way from working memory to long-term memory.

While there are many ways to activate prior knowledge, the **Dusting Off the Cobwebs** exercise is an excellent one to use at the beginning of class. It can take approximately 5-10 minutes of class time, but it is a worthwhile investment!

Here's how it works:

Step 1: Students need to partner up with another student. Note: I encourage students to find different partners each class so that they get to know more classmates.

Step 2: In pairs, they need to recall what they learned last class (or from reading assignments) without using their notes or book. Students are given about 2 minutes for this task.

Step 3: Working with the same pair, students then open their notebook/book and discuss any content that they “forgot”. In essence, they are filling in the information gaps. The time allotted for this task is 2 minutes.

Step 4: Now it is time for a large group review. I randomly call on students to briefly share concepts discussed during the prior class or from the reading assignment. Randomly calling on students helps keep students on task during this activity. It also gives students who may not be

frequent participators the opportunity to share their knowledge and ideas with the class. It is not my style to typically call on students randomly because I know that some students require more processing time than others; however, this activity builds in this processing time. It even allows the students to “test drive” their answer with a classmate before having to share it with the large group. This is particularly helpful to students who may be concerned that their answer is incorrect. We typically review approximately 5 main topics from the prior lesson. This step takes approximately 3-5 minutes (sometimes more), depending on the complexity of the concepts and the level of understanding.

In summary, this “Dusting off the Cobwebs” exercise gets students engaged right at the start of class and activates the prior knowledge to increase learning of new content. It is an active learning technique that gets everyone engaged and increases participation levels of all students. It also serves as a formative assessment tool to assess how well students are grasping the concepts being discussed and engages students in the retrieval process which has also been linked to increased learning (Roediger & Karpicke, 2006). If students do not understand concepts, you can review material before addressing the new content in the upcoming lesson. It is a powerful way to begin a class!

References:

Goswami, U. (2008). Principles of learning, implications for teaching: A cognitive neuroscience perspective. *Journal of Philosophy of Education*, 42(3/4), 381-399. doi:10.1111/j.1467-9752.2008.00639.x

Roediger III H, Karpicke J. (2006). The power of testing memory basic research and implications for educational practice. *Perspectives on Psychological Science*. 1(3):181-210. Available from: Academic Search Premier,