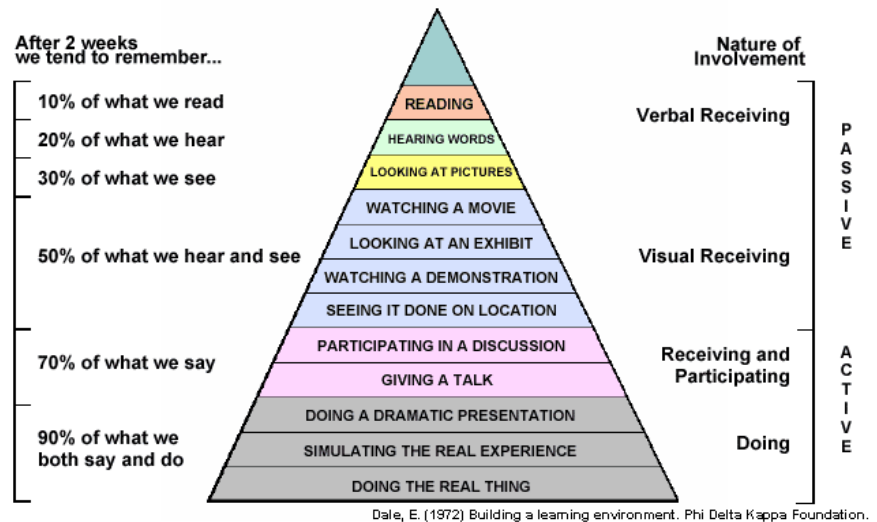




Lens on Learning Theory

Retention research, conducted by Edgar Dale, produced to the “Cone of Learning” model. It shows that active learning results in significantly greater retention than passive learning.

We also know that the **average attention span of learners is about 10-15 minutes**. This time frame will increase or decrease based on things such as maturity, interest in the topic, learning skills, motivation level, and environmental factors.



Reflection on Practice

1. How can you facilitate more student interaction with course content and/or each other?
2. **How you can promote more active participation** in lecture style delivery?
3. How can you change the classroom focus from “**what you will do**” to “**what learners will do**” and from “**learning about**” something to “**learning to do**” something?

Expanding Your Teaching Toolkit

Below are several ideas for generating interaction in your lectures.

1. Open-Ended Questions

- Pose questions that encourage learners to demonstrate comprehension, application, analysis, and/or synthesis of ideas.
- Pose predicting questions to move thinking forward (i.e. what if, what’s next).
- Pose Socratic questions to find out students’ level of knowledge on a topic.
- Use models such as the “six thinking hats” to promote divergent thinking.

2. Mini Quizzes, Self Assessments, Knowledge Checks

At strategic points in the lecture, students can be asked to ...

- Work individually or in pairs on multiple choice and/or true/false questions.
- Complete a pre-assessment for a topic: Find out what they know before lecturing.
- Complete a self-assessment related to a topic.
- Review their understanding of a concept with a partner

3. Pairs, Triads, Quads

Quick activities for subgroups increase activity without interrupting the flow of a lecture.

Subgroups can be asked to...

- Generate “ten” lists. (i.e. ten ways to do something, ten examples of a concept, etc.).
- Generate questions they have related to a topic.
- Propose a solution to a problem or challenge within a limited time frame.
- Develop a scenario depicting the application of a concept.
- Respond to a series of questions that require interaction with lecture concepts.
- Work to develop a visual representation of idea (i.e. concept map, graph, chart).

4. Individual Reflection

Individuals can be asked to...

- Respond individually to some aspect of the lecture.
- Identify levels of agreement with statements (i.e. strongly agree to strongly disagree)
- **One Minute Paper:** Students write a brief response to an idea, questions, etc. They then read their thoughts to others (pairs, triads, quads) or at the end of the lecture students write down three important points, and one question related to the lecture and hand this in for the instructor to read.
- **Think-Pair-Share:** A question is posed and students think about it for a minute or two. Then, they share their thoughts with a partner.
- **Test Questions:** Each student generates one or two questions that they think might be asked on a test (teacher should provide examples of higher level thinking questions). Students then form groups and ask each others' questions.

5. Technology

- **Blackboard Quiz:** Post a quiz on Blackboard to complete prior to class and then take it up at the beginning of a lecture to introduce topic
- **Clickers:** Use the classroom response system (clickers) for review.
- **WebQuests:** Have students use laptops and the web to explore ideas.

More Information and Ideas

On the Web

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