



# Working Memory

## Student Success Strategies

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# Working Memory Characteristics

**Duration** – Seconds, similar to Short-Term Memory

**Type of Information** – Any kind

**Example** – Following lengthy directions involving how to reach a specific location

# Working Memory and the Classroom

Students that struggle with working memory tend to have the following characteristics:

1. Good social interaction
2. Reserved in their peer group
3. Challenges in reading and math
4. Failure to follow directions completely
5. Difficulty completing certain tasks

# Using Best Practices to Assist Students

## A Seven Step Process

1. Recognize Working Memory Challenges
2. Monitor the Student
3. Evaluate Working Memory Loads
4. Reduce Working Memory Loads When Necessary
5. Repeat Important Information
6. Encourage Use of Memory Aids
7. Develop the Student's Own Strategy to Support Memory

# Recognize Working Memory Challenges

Incomplete recall and note taking, failure to follow instructions, place-keeping errors and task abandonment. This can cause a challenge in all classes but especially math.

# Monitor the Student

Look out for signs the student may not be mastering the material and ask the student if they need assistance.

# Evaluate Working Memory Loads When Necessary

Reduce the amount of material to be remembered at one time. For example, study 100 questions for a test, 20 questions at a time. This simplifies mental processing and restructures complex tasks.

# Repeat Important Information

Repetition support can be provided by tutors and the student can study by themselves as well. **Study guides for quizzes and tests are important.**



# Encourage Use of Memory Aids

Examples: Study guides, wall charts, posters, personalized dictionaries, cubes, memory cards, audio recorders and computer software.

# Develop the Student's Own Strategies to Support Memory

Examples: Encouraging students to feel comfortable to ask the instructor for help, use instructor notes for test preparation, having the student take notes as well, rehearse classroom material, place-keeping and organizing their work.

# References:

Alloway, T. P. & Gathercole, S. (2008). Working Memory & Learning. A Practical Guide for Teachers. London: Sage Publications Ltd.

Harvard Graduate School of Education. Retrieved from <https://www.gse.harvard.edu/news/uk/16/12/defining-skills-success>

<http://www.c8sciences.com/harvard-university-working-memory-case-study/>

# References Continued:

UALR Disability Resource Center

<http://ualr.edu/disability/faculty/note-taking/>

Disability, Opportunities, Internetworking and Technology

<http://www.washington.edu/doit/what-are-some-ways-provide-note-taking-accommodations-student-disability>

Enhancing the Note-Taking Skills of Students with a Mild Disability

[http://www.idonline.org/article/Enhancing\\_the\\_Note-Taking\\_Skills\\_of\\_Students\\_with\\_Mild\\_Disabilities](http://www.idonline.org/article/Enhancing_the_Note-Taking_Skills_of_Students_with_Mild_Disabilities)