# Teaching D.org

## HotSheet I: Effective Practices for Homework



Kathy Ruhl & Charles Hughes PENN STATE UNIVERSITY

#### Homework has four basic purposes:

- **1. Practice** (e.g., after the teacher has directly taught a math algorithm in class, the homework is to complete several problems requiring use of that algorithm).
- 2. Preparation (e.g., pre-reading or looking over a new unit of study in a text for the next class meeting).
- 3. Study (e.g., reviewing content to prepare for a test).
- **4.** Extend or elaborate (e.g., completing a project or paper on a topic such as investigating the causes of the Vietnam War).

Of these purposes, the most valuable in producing measurable academic gains is practice for the purpose of building proficiency, maintaining mastery or both. This is not to say that the other purposes lack legitimacy. However, in existing studies, it is evident that when homework is used to build fluency and maintain proficiency, student performance is most positively affected.

Practice can be provided via homework in two ways, *single-skill* or *cumulative. Single-skill* assignments are appropriate when students are mastering the taught skill itself; *cumulative* assignments are valuable when students are learning to determine which skill to use and then applying it. The example about teaching a math algorithm is a *single-skill* format. If the assigned homework included the newly learned algorithm along

with some previously learned skill, it would be considered cumulative. Cumulative practice is critical for skill maintenance and is included in any model of effective teaching practices. Skill maintenance is especially difficult for students with LD.

A critical idea here is that the student *must have demonstrated competence* in the skill being practiced *before* being asked to do it independently (i.e., as homework). Research indicates students should be able to perform a skill at 90% accuracy before it should be assigned as homework for independent practice.

#### **Homework Facts**

Researchers have examined homework in many different ways. In addition to assessing what homework practices are beneficial, they have been able to describe how and when homework is assigned. Here are some important facts about homework that one can learn from the research literature.

- **Benefits vary by age.** The older the student, the more likely homework will have a beneficial effect.
- <u>Optimal time per night spent on homework varies with grade level</u>. For, primary, upper elementary, middle school, and high school grades, the optimal time is about 20, 40, 60, and 90 minutes, respectively.
- **Homework is given often.** Reports indicate that students may get as many 400 assignments per year in grades 7-10.
- <u>Homework has significant effects on grades</u>. Up to 30% of course grades in grades 7-10 is based upon homework.
- <u>Homework affects test scores</u>. Successful completion of homework has been associated with gains (up to 15 percentile points) on standardized test scores.

The best use of homework is to build proficiency in recently acquired skills or to maintain skills previously mastered.

## **Practices that are Less Effective**

Historically, individualization has been integral to effective education for students with Learning Disabilities. However, homework has been neglected as an area warranting individualization, especially for students served in inclusive settings. Studies show general education teachers and students accept modifications for students with Learning Disabilities for many areas of instruction (e.g., testing modifications), but when it comes to homework, they are less accepting of individualization. However, the result of not individualizing homework can be devastating. Indeed, if students are assigned a task they are unable to complete independently or that takes them inordinate amounts of time to complete, the probability of their attempting the task is greatly reduced and they run the risk of practicing errors with serious consequences. Therefore, not individualizing homework is not an effective practice. Other ineffective practices are listed in the table below.

INEFFECTIVE PRACTICE	EXPLANATION
Homework not individualized.	Often, students with learning disabilities require a greater amount of time to complete homework. Giving an assignment because "everyone else" has to do it may mean the student with LD does not complete it.
Homework assignments contain new information and practice.	If homework does not mirror instruction, there is the chance that students will practice a new concept incorrectly and will then need more time and instruction to relearn it correctly.
Homework assignments given quickly at the end of class period.	Teachers often run out of time at the end of the class period when assigning homework. Then, homework is given in a rushed fashion verbally and many students do not hear it. Or the information is merely placed on the board and students miss it.
Homework collected but not reviewed.	Homework provides an opportunity for direct feedback on individual student performance. If a student turns in homework that is not done correctly and the teacher does not review it and provide feedback, the student will continue the error on subsequent assignments and tests.
Homework given without purpose or objective.	Homework given without purpose will create frustration in students and lead to a lack of motivation to complete it.

## **Practices that are More Effective**

Research has also provided direction about some practices that are especially beneficial. Teachers of students with Learning Disabilities probably should employ these practices, as they are likely both to help the student acquire the content or skills being learned as well as help students to complete homework in the future. For teachers collaborating with colleagues in general education settings, these are practices that probably should be promoted. Effective homework practices are listed in the table below.

PRACTICE	EXPLANATION
Give less more often.	Distributed practice is critical for maintenance and retention. Providing multiple, smaller practice opportunities is superior to a single, large practice session.
Have a specific purpose in mind for each student.	Have a specific goal for the student to accomplish and understand the value of the assignment for each student.
Ensure the task mirrors the instruction.	For example, if instruction has been limited to the knowledge level, requiring students to use the content for application, in a new format, is not appropriate.
Allot enough time to present homework and ensure student attention.	Because many students with LD write slowly and have difficulty with multiple step directions given orally, rushing through presentation of homework may mean students will not know what to do. Make sure students are listening when you are giving an assignment.
Verify student understanding of the assignment.	Merely asking students if they understand the assignment does not verify that they do. If the task is new and unfamiliar, it may be helpful to demonstrate how it is done.
Explain the purpose of the homework and how it will be evaluated.	Explaining why the homework is important and what it is designed to do may help students be more motivated to complete it. Standards for grading should be made explicit to students and their understanding ensured.
Provide feedback in a timely fashion.	Homework should be evaluated as soon as possible and written or oral corrective feedback given to students. This is especially important if students have not yet mastered the targeted content or skills.

## Summary

There are over 500 articles and books on the topic of homework but only a few are actual research studies. In the area of LD there are fewer than a dozen. This guide presents a compilation of the implications for practice from those studies. Based upon this research there are three big ideas to remember when using homework:

- The best use of homework is to build proficiency in recently acquired skills or to maintain skills previously mastered.
- Homework should be individualized.
- Teachers should evaluate homework and provide detailed feedback to students.

#### References

- Bryan, T., Nelson, C., & Mathur, S. (1995). Homework: A survey of primary students in regular, resource, and self-contained special education classrooms. *Learning Disabilities Research & Practice, 10,* 85-90.
- Cooper, H. (1989). Synthesis of research on homework. Educational Leadership, 47, 85 91.
- Cooper, H., & Nye, B. (1994). Homework for students with learning disabilities: The implications of research for policy and practice. *Journal of Learning Disabilities, 27,* 470-479.
- Epstein, M. H., Polloway, E. A., Foley, R. M., & Patton, J. R. (1993). Homework: A comparison of teachers' and parents' perceptions of the problems experienced by students identified as having behavioral disorders, learning disabilities, or no disabilities. *Remedial and Special Education*, 14(5), 40-50.
- Hughes, C. A., Ruhl, K. L., Schumaker, J. B., & Deshler, D. D. (2002). Effects of instruction in an assignment completion strategy on the homework performance of students with learning disabilities in general education classes. *Learning Disabilities Research and Practice*, *17*, 1-18.

Hughes, C. A., Ruhl, K. L., Schumaker, J. B., & Deshler, D. D. (1995). *The assignment completion strategy*. Lawrence, KS: EDGE Enterprises.

- Hughes, C. A., Ruhl, K. L., Rademacher, J. A., Schumaker, J. B., & Deshler, D. D. (1995). *Quality quest planner*. Lawrence, KS: Edge Enterprises.
- Hughes, C. A., Maccini, P., & Gagnon, J. C. (2003). Interventions that positively impact the performance of students with learning disabilities in secondary general education classrooms. *Learning Disabilities: A Multidisciplinary Journal*, 12(3), 32-44.
- Lenz, B. K., Ehren, B. J., & Smiley, L. R. (1991). A goal attainment approach to improve completion of project type assignments by adolescents with learning disabilities. *Learning Disabilities Research and Practice, 6,* 166-176.
- O'Melia, M. C., & Rosenberg, M. S. (1994). Effects of cooperative homework teams on the acquisition of mathematics skills by secondary students with mild disabilities. *Exceptional Children*, 60, 538-548.
- Otto, W. (1985). Homework: A meta-analysis. Journal of Reading, 28, 764-766.
- Paschal, A., Weinstein, R., & Walberg, H. (1984). The effects of homework on learning: A quantitative synthesis. *Journal of Educational Research*, 78, 97-104.
- Polloway, E. A., Foley, R. M., & Epstein, M. H. (1992). A comparison of the homework problems of students with learning disabilities and nonhandicapped students. *Learning Disabilities Research* and Practice, 7, 203-209.
- Putnam, M. L., Deshler, D. D., & Schumaker, J. B. (1993). The investigation of setting demands: A missing link in learning strategy instruction. In L. Meltzer (Ed.), *Strategy assessment and instruction for students with learning disabilities: From theory to practice* (pp. 325-354). Austin, TX: PRO-ED.
- Rademacher, J. A., Deshler, D. D., Schumaker, J. B., & Lenz, B. K. (1998). *The quality assignment routine*. Lawrence, KS: Edge Enterprises, Inc.
- Rademacher, J. A., Schumaker, J. B., & Deshler, D. D. (1996). Development and validation of a classroom assignment routine for inclusive settings. *Learning Disability Quarterly*, 19, 163-178.

- Rosenberg, M. S. (1989). The effects of daily homework assignments on the acquisition of basic skills by students with learning disabilities. *Journal of Learning Disabilities, 22*, 314-322.
- Sah, A., & Borland, J. H. (1989). The effects of a structured home plan on the home school behaviors of gifted learning-disabled students with deficits in organizational skills. *Roeper Review*, 12, 54-57.
- Salend, S. J., & Gajria, M. (1995). Increasing the homework completion rates of students with mild disabilities. *Remedial and Special Education, 16,* 271-278.
- Salend, S. J., & Schliff, J. (1989). An examination of the homework practices of teachers of students with learning disabilities. *Journal of Learning Disabilities, 22*, 621-623.
- Trammel, D. L., Schloss, P. J., & Alper, S. (1994). Using self-recording , evaluation, and graphing to increase completion of homework assignments. *Journal of Learning Disabilities*, *27*, 75-81.

#### More Resources from TeachingLD.org:

Be sure to visit <u>**TeachingLD.org**</u> on line and get the latest and greatest information about teaching students with learning disabilities. Here are just a few of the resources you can retrieve from the site:

#### Alerts!

Find out what methods have and do not have research support. Past Alerts! have reviewed research on cooperative learning, Direct Instruction, Reading Recovery, mnenomic strategies, phonics, and on and on.

#### **Teaching Tutorials**

TLD's Teaching Tutorials provide step-by-step outlines of why and how to use proven procedures for assessing students' performance and for teaching students ways of completing academic tasks independently. Find out how to:

- Teach mnemonics;
- Teach self-monitoring of attention;
- Teach math problem-solving;
- Use curriculum-based measurement to assess oral reading fluency;
- Use the curriculum-based measurement Maze procedure to assess reading comprehension.

#### **Expert Commentary**

Read experts' answers to questions submitted by teachers to **TeachingLD.org**.



TLD's HotSheets are produced by the Division for Learning Disabilities (DLD) of the Council for Exceptional Children (CEC). Visit the DLD Member's Only section of TeachingLD.org for additional HotSheets. ©2005 Division for Learning Disabilities of the Council for Exceptional Children. All rights reserved. DLD grants permission to copy for personal and educational purposes.