Review of Literature on Homework

Homework is a time honored practice that can enhance the development of skills and reinforce knowledge gained within the classroom when it is used effectively and appropriately. It is a natural extension of the curricular programs because it is an integral component of instruction. It can also serve as a vital link between the school and family. Investigating the issues surrounding homework policies and procedures is a beneficial, essential exercise to promote the development of meaningful, consistent assignments and time guidelines.

Review of Literature on Homework

Upon reviewing literature related to homework trends, categories including *the benefits of homework*, *effective homework policies*, *recommended grade level homework time guidelines, and criteria for meaningful homework assignments* emerge. Highlights from each of the categories are summarized below:

Benefits of Homework

Homework is an integral part of instructional programs and life-long learning experiences. For a new skill to become automatic or for new knowledge to become long-lasting, distributed and sustained practice is necessary. (Willingham 2002, 2004; Marzano, 2001). Homework provides reinforcement, practice, application, transference, and enrichment of what is taught in class and requires students to integrate skills included in curricula. It also prepares students for meaningful class participation and fosters a closer home-school connection and ongoing parental involvement in the student's education. As children complete their assignments, they become more invested in and responsible for their learning.

Homework places demands on students that help them to develop mental skills such as concentrating, following directions, organizing materials, solving problems, and working independently. It offers a way for students to develop a sense of competency and independence. The most helpful homework assignments are carefully planned by teachers and have direct meaning to students.

Research indicates varying effects of homework for different age levels. The benefit of homework at the elementary level is to assist students in developing time organization, independent problem solving, and information processing skills. Homework helps children develop beliefs about achievement and study habits, including the value of effort and the ability to cope with mistakes and difficulty (Bempechat, 2004). However, by the time students reach the high school level, the effects of homework are more impressive. Relative to other instructional techniques, homework can produce a substantial, positive effect on an adolescent's performance at school. A typical homework completing high school student will outperform students who do not do homework by 69% on standardized tests (Cooper, 2001). Research also shows homework can raise a student's G.P.A. by one-half point for 30 extra minutes of homework per night (Marzano, 2001). Homework in high school has also shown to be directly related to workplace earnings. Students doing no homework end up with 1.2 years less education and 19% lower earnings than average. Students doing 15 hours or more a week of homework attain almost 1.5 year of education and attain 16% higher earnings than average (Rosenbaum, 2004).

In a review of the literature, Bempechat has shown how parent's positive attitude can be a major factor in how students view homework. Parents who model and provide guidelines to deal with confusing homework or help their children manage homework time or break down long-term projects contribute to their child's adaptive motivational

skills which fosters confidence, persistence, goal setting, planning and delayed gratification skills (coping with difficulties and setbacks) (Bempechat, 2004).

Effective Homework Policies

Homework policies are essential in setting appropriate guidelines for each grade level and establishing realistic demands on students. Elementary, middle school, and high school guidelines should be provided to enhance the clarity of homework assignments and to control homework load, especially for students with a different teacher for each subject.

When designing an effective homework policy, school districts need to consider the following questions:

- What is the district's philosophy on homework and how does it complement the curriculum and program objectives?
- What is an appropriate amount of homework for students in each grade level?
- What are the different purposes for homework at varying grade levels?
- What is an appropriate amount of homework for students with special educational needs?
- Who should monitor that the homework demands on students are consistent and manageable?
- How will the homework load be controlled for students with a different teacher for each subject?
- How will the homework policy be communicated to students, parents, and teachers?
- Who will monitor the implementation of the policy?
- What additional support can be offered to help students with homework (i.e. homework hotline, websites, before/after school homework "club"etc.)?

Recommended Grade Level Homework Time Guidelines

The specific recommended grade level time guidelines vary from district to district. However, the literature does reveal the following common ranges for each grade level. *(Test preparation should count as homework time with regard to total time assigned.)*:

- Grades K-2- should not exceed 10-20 minutes per day
- Grades 3-4- should not exceed 45 minutes per day

(At the elementary level, a common recommended formula is for students to complete approximately 10 minutes of homework per grade level.)

- Grades 5-6- should not exceed 70 minutes per day

- Grades 7-9- should not exceed 1.5 hours
- Grades 10-12- should not exceed 2 hours

Additional factors that need to be considered regarding time spent on homework include the following:

- A student's program of study or skill level should be reviewed should a student consistently spend 50% more time than the recommended number of minutes on homework.
- Homework fluctuates in school depending on what is covered in class that day or if an assignment extends over a period of days.
- Students may have other activities and options that compete for their time: jobs, sports activities, cultural or religious activities, TV, family chores or responsibilities, etc.
- Study habits also vary from student to student. Some like to break down long term projects over a course of days, while others prefer to complete them a day or two before they're due. Some students use every available minute in school or study hall to work on homework while others use the time to socialize. Some students prefer doing homework at a leisurely pace. They will take time to "get ready" or take breaks during their homework time. They may stop to talk on the phone or listen to music as they work, while other students get right to work and finish quickly with minimal distractions.
- Social or emotional factors may influence students' homework tasks. Not all children are on a "level playing field." Children's home environments may vary drastically from one child to another. Completing homework assignments may increase academic understanding for some children and be entirely detrimental to others.
- For students with special needs, appropriate adaptations should be provided. Homework for students with learning disabilities should focus on the integration of skills already possessed by the students and should not address complex skills.

Criteria for Meaningful Homework Assignments

Research identifies key characteristics of quality homework assignments. Well-designed homework assignments relate directly to what is being taught in the classroom and extend students' learning beyond the classroom. According to studies, student achievement rises significantly when teachers regularly assign meaningful homework and students conscientiously do it.

Homework is most useful when teachers carefully prepare the assignments, thoroughly explain it, give examples for completion, anticipate and address potential difficulties, and give prompt comments and criticism when the work is completed. To make the most of what students learn from completing homework, teachers need to prepare assignments as carefully as they design classroom instruction. The purposes of

the assignment should be clear to the teacher and to the students. It should also be made very clear how the students should profit and what they should learn from the assignment. Since most secondary students are being taught on a daily basis by several subject specific teachers, coordination of homework assignments is recommended to address overload.

Findings from studies recommend that homework is most effective for the learning of simple tasks. Students should not be expected to teach themselves complex skills at home. However, if the purpose of homework is to generate interest in a topic, it is appropriate to provide more challenging assignments that require the use of high order thinking skills and the integration of different domains of knowledge. Activities such as explaining what is seen or read in class; comparing, relating, and experimenting with ideas; and analyzing principles are examples of assignments that are more interesting and thought provoking to students. They also teach students to be independent learners. Homework tactics using a variety of senses and rehearsal strategies increase students' understanding and retention. Visualizing, writing, symbolizing, signing, semantic mapping, simulating, and devising mnemonics are strategies that can be used to reinforce and increase the likelihood of recall (Wolfe, 2003). Homework assignments should include material taught in previous weeks and even months. Research results using the spacing effect show greater dividends years later when skills are reviewed in a delayed condition (Willingham, 2002).

When teachers prepare written instructions and discuss homework assignments with students, the students take the assignments more seriously than if they were just announced. Students are more willing to do homework when they believe it is useful, when teachers treat it as an integral part of instruction, when it is evaluated by the teacher, and when completion of the assignments counts toward the total class participation and grade. Teacher comments provided on homework, particularly positive ones, tend to produce better learning. The comments also demonstrate that teachers find the homework valuable and important. The homework assignment is a useful diagnostic tool to teachers in that it provides information on the level of student understanding and is a means of monitoring student progress. Grading homework should also be uniform and equitable. Student work that earns an A in Mary's algebra class should also earn an A in Frank's algebra class (McGarvey, 2003).

There should be some review or reinforcement of assignments so that homework is not an isolated entity. If the tasks assigned as homework have a worthwhile purpose in the first place, they should be worth following up in class. It is often useful to start a homework assignment in class to make sure students understand the assignment. This practice is especially helpful to struggling students or when students in the class are completing different assignments.

It is not uncommon to see differentiated or individualized instruction, or project-based, inquiry, and authentic tasks implemented in classrooms, therefore, groups or individual students may have different assignments. This does not mean that every child in the class needs a different homework assignment every night. However, at times, it is

possible to vary the difficulty level and the assignment type for those students in the class who seem unlikely to benefit from the assignment as given.

The literature reveals the following additional recommendations related to the creation of meaningful homework assignments:

- Allow students to feel competent.
- Allow for student choice of assignment and assignment variety from time to time.
- Provide additional practice, increasing the amount of time students are actively engaged in learning and extending time on task.
- never assign homework as a punishment.
- Design classroom assignments that build on homework to reinforce the value of homework.
- Apply effective instructional practice to homework: frequent practice, good preparation, high success rate, check for understanding, give feedback, correction and re-teaching as necessary.
- Determine if students have the concepts and skills necessary to complete the assignment; insufficient preparation for homework may result in high levels of student frustration.
- Match assignments to the skills, interests, and needs of students.
- Teach students the skills they need to study or complete assignments (organizing, listening, outlining, note-taking, researching, etc).
- Homework can be effectively assigned to address: *preparation* of a skill/concept before instruction tasks place (through reading text that presents background information), *practice* of a skill/concept after instruction has taken place, *extension* of a skill/concept to determine if students can transfer an idea to a new or different situation, and *creative activities* that require students to put together skills/concepts in a new and different way.
- Provide "safety nets" for students who may struggle with assignments at home (i.e. homework hotline, websites, before/after school homework club).

The following table addresses the complex interaction of factors that influence homework effectiveness. The process model acknowledges the role of student characteristics, characteristics of the assignments, home environment for homework completion, and teacher evaluative comments.

Harris Cooper's Model of Factors Influencing the Effect of Homework (2001)

Exogenous Factors	Assignment Characteristics	Initial Classroom Factors	Home-Community Factors	Classroom Follow-Up	Outcomes or Effects
Student Characteristics: Ability Motivation Study Habits Subject Matter Grade Level	Amount Purpose Skill Area Utilized Degree of Individualization Degree of Student Choice Completion Deadlines Social Context	Provision of Materials Facilitators: Suggested Approaches, Links to Curriculum	Competitors for Student Time Home Environment: Space, Light, Quiet, Materials Others' Involvement: Parents, Siblings, Other Students	Feedback: Written Comments, Grading, Incentives Testing of Related Content Use in Class Discussion	Assignment Completion Assignment Performance Positive Effects: Immediate Academic, Long-term Academic, Non-academic, Parental Negative Effects: Satiation, Denial of Leisure Time, Parental Interference, Cheating, Increased Student Differences

Summary

Meaningful, relevant homework assignments that complement the curriculum should be designed and implemented. When used properly, homework can be a cost-effective instructional technique that can have positive effects on student achievement and character development and can serve as a vital link between the school and family. Homework, along with sports, special programs, and other activities, is an important component to the total educational program.

Individual student differences regarding academic abilities and home life situations need to be considered when providing homework that is age/grade level appropriate. Educators need to adjust teaching strategies, including the use of and time spent on homework, to the individual needs, abilities, and life circumstances of students. The development of a homework policy promotes consistent district guidelines and establishes realistic expectations for students and teachers.

REFERENCES

Bempechat, Janine (2004). *"The Motivational Benefits of Homework: A Social-Cognitive Perspective"*, Theory Into Practice - Volume 43, Number 3, Summer 2004, pp. 189-196 Retrieved from http://www.findarticles.com/p/articles/mi_m0NQM/is_3_43/ai_n6361599

Butler, Jocelyn (2002). *Homework.* Retrieved from http://www.nwrel.org/scpd/sirs/1/cu1.html.

Caine, Renate. et al (2004). 12 Brain/Mind Learning Principles in Action, California: Corwin Press.

Chicago Board of Education (2002). *Guide to the Chicago Board of Education Homework Policy.* Retrieved from http://www.bateman.cps.k12.il.us/cps_homework_policy.htm

Cooper, Harris (2001). *The battle over homework.* California: Corwin Press.

Cooper, H., Lindsey, J.J., & Nye, B. (2000). *Homework in the home: How student, family, and parenting style differences relate to the homework process.* Contemporary Educational Psychology, 25, 464-487.

Cooper, Harris (1999). *Homework research and policy: A review of literature.* Retrieved from http://www.universityofminnesotacarei.htm

Cooper Harris (1989). *Synthesis of research on homework.* Educational Leadership, November, 85-91.

ERIC Clearinghouse (1990). *Developing homework policies.* (ERIC identifier: ED256473)

Hancock, Julie (2001). *Homework: A literature review.* Retrieved from http://libraries.maine.edu/cre/37/No37.htm

Kidsource Online (2000). *How effective is homework?* Retrieved from http://www.kidsource.htm

National Education Association (2005). *Help your student get the most out of homework.* Retrieved from http://www.nea.com

New Paltz School District Homework Guidelines (2005). Retrieved from http://www.newpaltz.k12.ny.us/local/homework_guidelines.htm

NW Regional Educational Laboratory (2000). *Homework.* Retrieved from
http://www.nwrel.org/request/oct00/most.html.

Manchester Board of Education (2003). *Homework policy (enrichment and reinforcement of learning).* Retrieved from
http://robertson.ci.manchester.ct.us/homework_policy.htm

Parent Newsletter (2004). *Homework: Trials and tribulations.* Retrieved from
http://aboutourkids.org

Paulu, Nancy (1995). *Helping your child with homework.* Washington, DC: Office of Education Research and Improvement.

Perkins, David (1992). *Transfer of Learning*. Retrieved from
http://learnweb.harvard.edu/alps/thinking/docs/traencyn.htm

Plato, JoLynn (2002). *Homework and its role in constructivist pedagogy.* Retrieved from http://lrs.ed.uiuc.edu/students/plato1/constructhome/index.html.

Rosenbaum, James (2004). *It's Time to Tell the Kids: If You Don't Do Well in High School, You Won't Do Well in College (or on the Job)*, American Educator. Retrieved from http://www.aft.org/pubs-reports/american_educator/spring2004/tellthekids.html

Simplicio, Joseph (2005). *Homework in the 21st century: The antiquated and ineffectual implementation of a time honored educational strategy.* Education. Fall, 126, 138-142.

Teachernet (2005). *Effective homework and policies.* Retrieved from
http://www.teachernet.htm

Vatterott, Cathy (2002). *Rethinking homework.* Paper presented at Association for Supervision and Curriculum Development Annual Conference.

Waukegan Public Schools (2004). *Waukegan public schools homework policy.* Retrieved from http://www.waukeganpublicschools.com

Willingham, Daniel (2002). *Allocating Student Study Time,* American Educator, Summer 2002. Retrieved from http://www.aft.org/pubs-reports/american_educator/authors5.htm

Wolfe, Pat (2003). Brain Research and Education: Fad or Foundation? Retrieved from
http://www.mcli.dist.maricopa.edu/forum/fall03/brain.html