

Background Research: Tutoring Programs

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Tutoring Programs

Overview: Rationale, Best Practices, Outcomes

Rationale

Improving outcomes for students at risk of education failure is a major concern of government, communities, and school systems. Unfortunately, there is a great deal of research indicating that many students are not performing well in school. A report from the National Assessment of Educational Progress reported that almost two thirds of 8th and 12th graders read below the proficiency level (Houge et al., 2008). In addition, reading failure begins early and not only persists, but becomes worse as students move through the educational system (Maheady et al., 2006). Students who do not develop the necessary academic skills are at risk for continued school failure, underemployment, and the inability to participate fully in society (Hock et al., 2001).

The relationship between academic achievement and substance use has been well-documented, although a direct causal relationship remains unclear. For example, there is a strong relationship between cigarette use and school difficulties. Students with low grade point averages initiate and maintain cigarette use more than students with high grade point averages (Bryant, Schulenberg, Bachman, O'Malley, & Johnston, 2000). Poor school performance and low degree of commitment or lack of bonding to school also appear to be related to drug use (Hawkins, Catalano, & Miller, 1992). It is also clear that educational success is correlated with reduced risk for problem behaviors (Schinke, Cole, & Poulin, 2000).

In an effort to improve academic achievement in youth, there has been an increase in programs that provide additional educational support. Increasingly, efforts have turned to after-school (and sometimes during-school) tutoring programs which include services ranging from homework assistance to one-on-one strategic skill building. A review of the literature demonstrates that tutoring programs have shown some promise in reducing the gap in achievement and increasing students' academic success. Supplemental one-on-one instruction has been shown to be an effective avenue for increasing student achievement, especially for students at risk for academic failure. Evidence also indicates that well-designed tutoring programs utilizing trained volunteers and non-professionals can be effective in improving children's reading skills (U.S. Department of Education, 2001).

However, the research on the effectiveness of tutoring programs is mixed. Some studies have shown positive results while others have reported little to no impact on various academic measures. A challenge to examining the impacts of tutoring has been the lack of clear programmatic definitions of tutoring programs and their components. Tutoring models vary and can focus exclusively on homework assistance, skill-building, or some combination of both. Depending on the type of tutoring program, specific outcomes can also range from acquiring new skills to increasing homework assignment completion (Hock et al., 2001). Tutoring programs also vary in the types of tutors they employ: community volunteers, same-age or older peers, and certified teachers.

Best Practices

An overview of the research on tutoring highlights a number of specific practices that appear to increase the quality of tutoring programs and improve the chances of achieving positive impacts for students. Based on the available research, Gordon (Gordon et al., 2004; Gordon, 2009) has developed key best practice strategies for tutoring programs:

- Training tutors, especially novice tutors, on effective instructional strategies is critical to providing an effective tutoring program.
- A diagnostic/developmental template should be used to organize the tutoring program for each student.
- Formal and informal assessment needs to occur for each student to guide the tutoring process.
- Tutors should track the progress of students in order to adjust their content and strategies to improve tutoring sessions.
- Tutors should closely collaborate with the students' classroom teacher to maximize tutoring effectiveness.
- Tutoring programs should be structured around principles of learning and follow a sequentially arranged, systematic approach.

Outcomes

- Strategic tutoring was found to be effective in improving the academic performance of the majority of participating students (Hock et. al., 2001).
- In a synthesis of research, out-of-school-time programs have been shown to have positive effects on reading and mathematics in low-achieving students (Lauer et al., 2004).
- Out-of-school-time programs that provide one-on-one tutoring appear to be particularly effective for improving reading achievement (Lauer et al., 2004).
- An after-school tutoring program in which low-achieving 2nd and 3rd graders were tutored for one hour twice each week by university students, retirees, and suburban mothers generated strong improvements in the tutees' reading skills. Fifty percent of the tutored children made a full year's gain in reading while only 20% of the comparison group children did (Morris, Shaw, & Perney, 1990).
- Wasik and Slavin (1993) reviewed five one-on-one reading tutoring programs and concluded that all of the programs found significant positive effects (Elbaum et al., 2000)
- Elbaum (2000) and colleagues found that programs implemented at the middle and high school level tended to be more successful in improving math achievement than those at the elementary school level.
- Two tutoring programs in Dade County, Florida, that trained cross-age and adult volunteer tutors to work with elementary school students found that tutees outperformed a randomly assigned control group of students who were not tutored (Madden & Slavin, 1989).
- Tutoring programs can focus on activities in addition to academics (such as social enrichment) and still be effective (Lauer et al., 2004).

Tutoring Research Highlights

Tutor Training and Supervision

- Tutees whose tutors participated in ongoing, intensive training throughout their participation in a Dade County tutoring program outperformed tutees whose tutors did not complete the ongoing training sessions (Wasik & Slavin, 1993).
- A review of college-based tutoring programs that recruit college students to tutor younger children concluded that tutor training was vital to a project's success (Reisner et al., 1990).
- The importance of tutor training is reinforced by several other studies, which provide specific advice on the types of training that yield the best results. Jenkins & Jenkins (1987) point to the importance of training on interpersonal skills for tutors. The goal of this training is to help tutors respond appropriately to tutees and maintain patience during tutoring sessions.
- Warger (1991) states that training should include strategies for reinforcing correct responses and properly correcting incorrect responses.
- Tutors are more likely to be effective when they receive comprehensive training and ongoing support (Koralek & Collins, 1997).
- Tutor training that included knowledge acquisition, modeling role-play practice, and feedback/coaching during actual sessions was effective in teaching tutors the skills needed to implement strategic tutoring (Hock et al., 2001).
- Novice tutors do not necessarily understand and implement important instructional methods and may inadvertently utilize strategies that are detrimental to learning (Hock et al., 2001).

Program Implementation

- Rigorous evaluations of tutoring programs reported positive results for programs whose tutoring sessions ran from 10 to 60 minutes in length; longer sessions did not necessarily result in better outcomes (Warger, 1991; Robledo, 1990; Jenkins & Jenkins, 1987).
- Tutoring programs in which tutors met with tutees at least three times a week were more likely to generate positive achievement for tutees than programs in which tutors and tutees met twice a week (Reisner et al., 1990).
- In a synthesis of research on out-of-school-time programs, program duration was significantly correlated with positive effects. Programs that had a least 45 hours of implementation time were more effective for both math- and reading-focused programs (Lauer et al., 2004).
- A study of tutoring for 30 first-graders at risk for reading failure reported that successful tutor-tutee relationships were characterized by strong reinforcement of progress, a high number of reading and writing experiences in which the student moved from being fully supported to working independently, and explicit demonstration of appropriate reading and writing processes (Juel, 1996).
- In their 1982 meta-analysis, Cohen et al. found that structured tutorial programs demonstrated higher achievement gains than unstructured programs. Wasik and Slavin (1993) reached similar conclusions when they examined five successful tutoring programs.
- In a study of the use of tutorial scripts in teaching mathematics, McArthur, Stasz, and Zmuidzinas (1990) found that the most successful tutors often have well-rehearsed scripts for responding to student errors. (The results are general enough to apply to reading also.)
- The evidence suggests that students can benefit academically when qualified teachers implement a tutoring intervention either one-on-one or in small groups (Elbaum et al., 2000).

- In a synthesis of research on out-of-school-time programs, program timeframe (e.g. school year, summer) did not have a significant impact on program outcomes. The researchers conclude that when programs occur is less important than how they are implemented (Lauer et al., 2004).

Peer Tutoring

Chapman (1998) describes a series of “peer-assisted learning (PAL)” strategies that have demonstrated positive cognitive, social, and affective outcomes in a range of populations and settings. Chapman summarizes the key components of the peer-tutoring PAL strategy by stating, “...effective tutoring procedures are those in which carefully matched students are trained, supervised, and motivated to engage in high-quality interactions on suitably challenging academic tasks” (pg. 68). In order to optimize the positive outcomes of PAL peer-tutoring, Chapman recommends including the following components:

- Matched tutor-tutee pairs may be more effective when one low-achieving student is paired with one higher-achieving student who is confident in his/her abilities.
- Peer tutoring produces greater gains when pairs of students alternate between the roles of tutor and tutee (or “agent” and “recipient”).
- Suitably challenging academic tasks to be addressed in peer tutoring sessions can be established with guidance from the teacher and with the aid of scripted instructional resources commonly utilized by the teacher for regular classroom lessons.
- Peer tutors should receive training on methods such as direct instruction, modeling, and practice sessions, covering such topics as providing clear instructions, using prompting and positive reinforcement, providing effective feedback, and systematic error correction.
- Peer tutees should receive training on following instructions, responding to questions, applying feedback appropriately, seeking clarification when needed, and requesting help that will promote independent problem solving.
- Providing group reinforcement contingencies to peer tutoring pairs based on their collective gains, rather than on individual gains, helps to reinforce, facilitate, and maintain tutoring skills.
- Frequent monitoring and supervision of the peer-tutoring pairs by the teacher helps to keep students on track with their tutoring activities and goals, and improves the likelihood of increasing academic achievement.

Maheady and his colleagues reviewed four classwide peer tutoring models that have shown evidence of effectiveness for improving academic performance (Maheady et al., 2006). The programs share the following characteristics.

- The programs are focused on correcting reading or reading-related performance for diverse learning groups.
- Each program contains highly-structured, evidence-based components.
- All four models train tutors to present instructional items, evaluate tutee performance, provide positive and/or corrective feedback, and monitor tutee progress.
- All programs are closely monitored by well-trained teachers.

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Standards for Tutoring Programs

Providers delivering a standards based Tutoring program must

Planning Phase

1. Demonstrate that each CGP staff member assigned to the program activity completes the SAPP approved Tutoring professional development activity(s).
2. Develop a plan for youth referral/recruitment and screening that includes a commitment from the referral source to identify students at academic risk (including a linkage agreement with each referral source).
3. Identify and recruit tutors.
 - When tutors are certified teachers, tutoring programs will maintain a ratio of no more than five students to one tutor.
 - When the tutors are not certified teachers (including peer tutors), tutoring programs will maintain a ratio of no more than one student to one tutor.
4. Develop a formal orientation session for tutors which includes:
 - Overview of roles and responsibilities.
 - Handling difficult situations.
5. Develop a formal tutor screening process which includes:
 - A written description of the tutor's roles and responsibilities.
 - A written statement of the tutor's commitment to the tutoring program.
 - Background/reference checks.
6. Develop a process to gain parental consent for youth participation.
7. Develop a plan for monthly communication between tutoring staff and the student's teachers.
8. Develop training for adult tutors that are **not** certified teachers that include the following topics:
 - Overview of child development.
 - Reading development.
 - Strategies for responding to correct and incorrect responses.
 - Strategies for guiding children's behavior.
 - Strategies for building a positive trusting relationship with children.
9. If applicable, develop training for "peer tutors" (either same-age or older youth) to deliver the tutoring program that uses methods such as direct instruction, modeling, and practice sessions, covering the following topics:
 - Providing clear instructions.
 - Using prompting and positive reinforcement.
 - Providing effective feedback.
 - Systematic error correction.

Implementation Phase

The following standards are for Providers that have already demonstrated the planning standards above and are implementing a Tutoring program.

10. Deliver a formal orientation session for all tutors which includes:
 - Overview of roles and responsibilities.
 - Handling difficult situations.
11. Conduct a formal screening process with tutors which includes:
 - A written description of the tutor's roles and responsibilities.
 - Background/reference checks.
12. Gain parental consent for youth participation.
13. Provide training for adult tutors that are not certified teachers prior to those tutors working with students that include the following topics:
 - Overview of child development.
 - Reading development.
 - Strategies for responding to correct and incorrect responses.
 - Strategies for guiding children's behavior.
 - Strategies for building a positive trusting relationship with children.
14. Provide training to peer tutors through methods such as direct instruction, modeling, and practice sessions, covering the following topics:
 - Providing clear instructions.
 - Using prompting and positive reinforcement.
 - Providing effective feedback.
 - Systematic error correction.
15. Demonstrate that an adult teacher/facilitator or program coordinator will check in with each peer-tutoring pair at least once per session to ensure that tutoring plans are on track and pairs are attending well to tutoring activities.
16. Establish an individualized plan for each student that includes specific goals addressing area(s) of academic difficulty and ways progress toward goals will be tracked.
17. Maintain contact, a minimum of once per month, with each student's teacher, in order to review academic progress and performance.
18. Provide tutors with ongoing support by phone contact or face-to-face meetings with the teacher/facilitator or program coordinator, at least once per month.
19. Demonstrate that youth are participating a minimum of three times per week for 30-60 minutes per session until individualized academic goals have been met.
20. When tutors are certified teachers, tutoring programs will maintain a ratio of no more than five students to one tutor. When the tutors are not certified teachers (including peer tutors), tutoring programs will maintain a ratio of no more than one student to one tutor.