The Casey Family Program.
EDUCATION SERVICES

The Effects of Strategic Tutoring on Casey Youth:

A Comparison of Youths Receiving Strategic and Traditional Tutoring Services

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The Effects of Strategic Tutoring on Casey Youth

Purpose

For the past two years, Strategic Tutoring has been used and piloted in four Casey Family Programs Divisions as the basis for providing educational support services to Casey youth in need of academic assistance.

Strategic Tutoring is a way of teaching youth to become self-sufficient learners by how a tutor interacts with a youth in tutoring situations. As youth are helped with school assignments, strategies that can be used across school, family, and works situations are taught that make the youth more independent and less reliant on the tutor. Through Strategic Tutoring youth to learn to take control over their own learning and performance, experience the pride and satisfaction associated with successfully completing tasks independently, and develop confidence in their own ability to take on and meet new challenges independently.

Strategic Tutoring and the model for providing Strategic Educational Support Services helps youth, families, social workers, school staff and tutors to communicate educational needs and develop coordinated plans to link learning with motivation, personal satisfaction, and hope for the future.

During the past two years youth, parents, social workers, and transition specialists worked with education specialists in four targeted CFP Divisions to integrate Strategic Tutoring practices into Division work.

The purpose of this comparison study was to evaluate the impact of Strategic Tutoring on indicators of educational progress for a group of Casey Youth as compared to Casey Youth receiving traditional tutoring in CFP Divisions not using the Strategic Tutoring approach.

Based on previous research on Strategic Tutoring conducted with youth with learning and or emotional disabilities and youth without disabilities who had experienced school failure, we predicted that Strategic Tutoring would (a) increase performance on basic skill achievement tests, (b) decrease youth dependence on the tutor, and (c) maintain grade point average at the same rate as those youth receiving traditional tutoring even though less times was being spent oh assignment completion and more time was being spent in tutoring sessions teaching strategies for independent learning and performance.

Methods

Divisions and Participants. The CFP Divisions who participated in this comparison study included the four Divisions who had participated as pilot development sites for the Strategic Tutoring Project. These CFP Divisions included Oklahoma City, Rapid City, Seattle, and Tucson. Additionally, four Divisions within the CFP were identified as "comparison" sites based on their responses to a tutoring interview that was conducted in December 1999. One Division/Office from each of the four Regions was selected to serve as a comparison site, and the sites selected were those that had tutoring services that most closely resembled those of the pilot sites.

Youth selected to participate in this pre-post comparison from the four pilot sites were those that were currently receiving tutoring services for a minimum of one hour a week from a STP trained tutor. Youth from the comparison sites were selected by Division staff and were also receiving tutoring services at the time of the study for a minimum of one hour a week by a Division hired tutor. On average, the participants tended to be in middle school and were receiving 2 to 3 hours a week of tutoring services.

Data Collection. Data collected during the pre data phase included descriptive information (e.g., age/grade of youth, number of hours tutored for youth in a week, academic area in which the youth was being tutored and special circumstances surrounding the youth's current life situation). Additionally, data were collected that could be used to note change over time across the comparison and pilot sites. For this purpose, the Woodcock Johnson Tests of Achievement were administered to all participants to measure grade equivalency scores in the areas of Reading, Math and Written Language. Youths' GPA (grade point average) was also collected during the pre-data phase for the first semester of the 1999-2000 school year.

Data collected during the post data phase included all of the above (i.e., descriptive data, 2nd semester GPA, Woodcock Johnson Tests of Achievement grade equivalency scores) as well as responses to an Independence Interview. The purpose of this interview was to determine if youth were able to identify steps (cognitive and/or physical) that they take when working on a school assignment (e.g., studying for a test, answering questions at the end of a chapter, etc.). A second question was used to determine how independent the participants described their experience when working on an assignment in the presence of a tutor.

In the majority of cases, across both pilot and comparison sites, the same test administrator administered the Woodcock Johnson Tests of Achievement to participating youth. Additionally, measures were taken to ensure that the testing conditions across pre and post testing situations were similar.

Data Analysis. Data were analyzed across three measures and sorted into seven categories to answer specific questions about the impact of Strategic Tutoring.

Data Categories

1. **Grade Point Average:** What was the average change in GPA from 1st to 2nd semesters across pilot and comparison sites?

2. **Achievement Test Scores.** What was the average change by months in Woodcock Johnson Test of Achievement grade equivalency scores across pilot and comparison sites?

3. **Physical steps stated in plan.** When asked how to do an assignment during the Independence Interview, what was the average number of physical steps (e.g., "I read the questions first and then look over the subtitles in the chapter") identified by youth across pilot and comparison sites?

4. **Cognitive steps stated in plan.** When asked how to do an assignment during the Independence Interview, what was the average number of cognitive steps (e.g., "next I paraphrase the solution in my head") identified by across pilot and comparison sites?

5. **Total steps stated in plan.** When asked how to do an assignment during the Independence Interview, what was the total average number of physical and cognitive steps identified by youth across pilot and comparison sites;

6. **Youth's Planned Use of Strategies.** When asked how to do an assignment during the Independence Interview, what was the average level of planned strategy use (i.e., knew a specific strategy to use to attack the assignment) based on a 0-3 scale[1] across pilot and comparison sites?

7. **Youth's Awareness of Independence.** When asked during the Independence Interview about how he or she works with a tutor to complete an assignment, the average level of awareness of independence from the tutor based on a 0-5 scale[2] identified across pilot and comparison sites.

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[1] Level of planned strategy use scale: 0 – no cognitive steps identified; 1 – youth list cognitive steps; 2 – youth names a study skill; 3 – youth names a packaged strategy such as PREP or RAP.
[2] Level of metacognitive and tutor dependence scale: 0 – youth reports that they are unable to identify the a strategy; 1 – youth identifies that the tutor completes the task; 2 – youth identifies that the tutor completes the majority of the task; 3 – youth identifies that the tutor does about half of the task, 4 – youth identifies doing most of the task (tutor prompts only) 5 – youth identifies that they do all of the task.

Results

Table1 and Table 2 summarize the results of the 7 categories of data described above across the comparison and pilot sites.

Table 1: Summary of change in GPA and W-J Achievement Test pre-post measures over a four month period

Group	Average change in GPA between 1st semester and 2nd semester	Average change in months on W-J Tests of Achievement.
Comparison Divisions	-.043	+3.50 months
Pilot Divisions	+.37	+10 months

Table 2: Results of Independence Interviews with youth conducted at the end of the study.

Group	Average # of physical steps stated in plan	Average # of cognitive steps stated in plan	Average total # of steps stated in plan	Average level of planned strategy use	Average level of awareness of independence
Comparison Divisions	1.08	.50	1.59	.17	1.30
Pilot Divisions	2.60	1.35	4.00	2.12	4.50

Summary of Findings

Grade Point Average

According to the results presented here, the participants from the pilot Divisions experienced a slightly improved GPA from 1st to 2nd Semester whereas the participants from the comparison Divisions experienced a slightly decreased GPA from 1st to 2nd Semester. However, the differences among both groups are so small, it would be difficult to attribute any change in effect to the tutoring programs in either the comparison or pilot Divisions.

Achievement Test Scores

The mean change in months for the comparison Divisions in grade equivalency scores for the Woodcock-Johnson Tests of Achievement in Reading, Math and Written Language is 3.5 months, just short of the 4 month lapse in time between pre and post data collection. The mean change in months for the pilot Divisions in grade equivalency scores for the Woodcock-Johnson Tests of Achievement in Reading, Math and Written Language is 10 months, reflecting a significant improvement from pre to post time periods. In fact, youth who received Strategic Tutoring achieved almost three times greater than the youth in the comparison group.

Independence Interview

Steps in A Plan. The Independence Interview data for pilot and comparison Divisions reveals that youth participants in the comparison Divisions identified an average of 1 physical step in an assignment completion plan, while the STP pilot Division participants identified an average of 3 physical steps. The STP pilot Division participants were able to identify an average of 1 cognitive step whereas the comparison Division participants were only able to identify an average of .5 cognitive steps. The total mean number of steps identified was 1.59 for the comparison Division participants and an average of 4.0 steps for the pilot Division participants.

Youth's Planned Use of Strategy. On the level of strategy use, the pilot Division participants on average were almost always able to identify a strategy or a specific study skill associated with a strategy that they could use to complete an assignment The comparison Division participants were seldom able to identify any type of cognitive step and no youth identified a whole strategy or study skill that they could use to attack the assignment.

Youth's Awareness of Independence. Finally, pilot Division participants described that in their tutoring situations they had become mostly or completely independent of the tutor in completing assignments. However, comparison Division participant's responses on average fell into the category indicating that they were dependent on the tutor to direct the tutoring session and required the tutor to provide significant assistance to complete homework assignments.

Limitations & Conclusions,

Limitations. The limitations related to conducting this type of evaluation were discussed last year when we decided to evaluate the effects of Strategic Tutoring by comparing the progress of these youth with the progress of youth in other STP Divisions. While we agreed to complete this type of evaluation despite these limitations, it is important that results of this study be interpreted with the following limitations in mind:

1. Many youth in the STP pilot Divisions had been receiving the Strategic Tutoring intervention for two years prior to this study. Therefore, the actual gains from the Strategic Tutoring intervention may be underestimated.
2. Since random assignment to conditions was not possible, the overall effects of other factors in the youths environment (e.g., other activities occurring in the community, the family, or in the CFP Division) may have influenced results.
3. Since the number and type of youth being provided tutoring services in each Division varies by race, gender, educational level, disability, emotional stability, etc., we were not able to control for the variety of youth characteristics that could influence results.
4. Several youth from both pilot site Divisions and comparison Divisions participated in the pre data collection phase of the study but did not participate in the post data collection phase. For two of the youths from the pilot site Divisions, they no longer experienced a need for tutoring and thus were dropped from the study. Five youths from comparison Divisions didn't show up for their scheduled post test, had left the program, or had dropped out of tutoring.
5.

Conclusions. The results of this study show that youth receiving Strategic Tutoring in the STP pilot Divisions increased achievement levels by nearly three times the level attained by youth in the comparison Divisions. In addition, youth in STP pilot sites demonstrated more independence in completing assignments and clearly had more well developed plans or strategies for completing tasks independently. In contrast, youth in the comparison Divisions had almost no plans for attacking assignments and were highly dependent on the tutor for assignment completion. In addition, these gains were achieved in the same amount of tutoring time spent by youth in comparison Divisions and maintained their GPA despite the fact that less time was being spent in tutoring sessions on direct homework assistance.

The results of this study are consistent with previous research on Strategic Tutoring with other youth at-risk for academic failure. The use of Strategic Tutoring as it was implemented in the four STP pilot Divisions leads to superior outcomes related to literacy achievement and youth independence compared to traditional types of tutoring currently being used in comparison CFP Divisions. As demonstrated in previous research studies, GPA would not be expected to increase regardless of the type of tutoring being provided until more structured and sustained work with the youth's parents and teachers are included in the educational support model.

Implications for Casey Youth and CFP Educational Services

1. Strategic Tutoring is a highly efficient and effective approach to supporting the educational achievement of foster care youth outside of the classroom environment and should be considered a "best practice" for educational services.
2. Other CFP Divisions should be encouraged and be given the opportunity to learn and incorporate Strategic Tutoring into their work with youth, families, and schools.
3. Strategic Tutoring should be expanded to include education and transition interventions that will increase the participation and communication between youth, families, social workers, teachers, and tutors in structured and sustained ways that will result in increased GPA across academic subjects.

Strategic Tutoring Project – FAQ

What is the Strategic Tutoring Project?
A collaborative project between The Casey Family Program and The Center for Research on Learning at the University of Kansas Center, the Strategic Tutoring Project was implemented in September, 1998 with four participating Casey Divisions: Oklahoma City, Rapid City, Seattle and Tucson to address a need for improvement and evaluation of tutoring services.

What is Strategic Tutoring?
Strategic Tutoring is a way of teaching youth to become self-sufficient learners by how a tutor interacts with a youth in tutoring situations. As youth are helped with school assignments, strategies that can be used across school, family, and works situations are taught that make the youth more independent and less reliant on the tutor. Through Strategic Tutoring youth to learn to take control over their own learning and performance, experience the pride and satisfaction associated with successfully completing tasks independently, and develop confidence in their own ability to take on and meet new challenges independently.

Why should my Site participate in this project?
Based on 20 years of research, Strategic Tutoring has been identified as an effective instructional practice that enables tutors to teach students effective strategies to become academically and socially self-sufficient while working on homework. A 2000 report comparing youth outcomes at the four STP pilot sites and four comparison sites was also quite dramatic. Youths receiving tutoring services that focused on the learning strategies made dramatic gains this year. In summary, results of this study showed that youth receiving Strategic Tutoring in the STP pilot Divisions increased achievement levels by nearly three times the level attained by youth in the comparison Divisions. In addition, youth in STP model sites demonstrated more independence in completing assignments and clearly had more well developed plans or strategies for completing tasks independently. The complete report is attached on this e-mail. In addition to the impressive outcomes that we identified for youth who receive tutoring from STP trained tutors, participation in STP has led to many other outcomes that includes new and stronger partnerships in school communities, more family involvement, and more attention directed towards the educational needs of youths in out of home care, to name a few.

Who provides the training?
Training is provided by trainers who have worked closely with the Center for Research on Learning staff. Many of these individuals are experts in Strategic Tutoring and Learning Strategies. Additionally, STP model Division site teams will provide new participating Divisions with mentoring and modeling throughout the project.

What are the costs associated with participating in STP?
Costs associated with the program include travel, training and supplies (approx. $16,000 for two years).

What are the prerequisites for participating in this project?
There are 3 main prerequisites for participation in this project. First, we would like at minimum a two-year participation commitment from the sites. We have found that it takes approximately two years to build a solid, outcome-oriented tutoring program and to complete the training in *ST*. Second, a site STP coordinator who will spend approximately 20% of their job on STP related activities, needs to be appointed to this project. The four model STP sites have designated Education Specialists for this responsibility. However, any person appropriate for this position would be welcome. In addition to recruiting, training and evaluating tutors, reaching out to local school communities and tutor programs, participating in STP training, etc. this person would also be expected to travel to various STP trainings and meetings 2-3 times a year. Finally, we would like sites to appoint at least two tutors to the STP team. These tutors are integrally involved in the coordination and execution of this project. While the tutors do not necessarily need to be credentialed teachers, they should have fairly extensive experience in academic settings. They will also be required to travel and participate in STP meetings and trainings. We recommend you find tutors who are also willing to commit to this project for two years.

My Site has a unique structure and needs. How will STP accommodate my Site?
One of the greatest lessons we have learned working with the four STP model sites is that each site is different and has different needs. Consequently, we will work with each participating STP Site to build an action plan that is uniquely tailored to your Site. For example, a Site may want to focus solely on reaching out to greater numbers of youth in out of home care. We would work with this Site on building a plan that accomplishes this goal. For each new participating Site, the first step will involve working together to assess what the Site's goals and needs are and working collaboratively on developing an action plan.

Who can I talk to about participating in this project at the Site level?
While Division Directors and Social Work Supervisors will be able to give you a global overview of their experience with STP, the Education Specialists at these four sites are most knowledgeable about how STP has impacted their Division and youths' outcomes. These folks are:
- Oklahoma City – Jane Rauh
- Rapid City – Karen Mortimer
- Seattle – Phil Sorensen
- Tucson – Sharon Dobbin

You are also welcome to contact either myself or Debbie Staub, Assistant Director - STP Project.