# The Impact of Group Tutoring on At-Risk College Students

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## Abstract

*This study indicates the positive impacts of group tutoring on at-risk students' academic achievement. The differences between the final grades of at-risk students who received group tutoring were compared to those who received one-to-one tutoring. In 2007, a University in the Southeastern United States began the AEP, which is a two-semester program that students who are considered at-risk are enrolled. The participants consisted of 95 college freshmen, 80 males and 15 females, who were conditionally enrolled at the University in the Academic Enrichment Program (AEP). Each of the participants was assigned to group tutoring or one-to-one tutoring. Results of a one-way analysis of variance determined there were significant differences in final grades of students who received group tutoring compared to one-to-one tutoring.*

***Keywords:*** Academic Enrichment Program (AEP), Tutoring, Group tutoring, One-to-one-tutoring.

This study examined the differences between the final grades of at-risk students who received group tutoring toat-risk students who received one-to-one tutoring. At-risk students who received group tutoring indicated a significant difference in final grades as compared to those who received one-on-one tutoring. These results indicate a positive impact of group tutoring on at-risk student achievement.

### *Literature Review*

Students with different academic abilities are admitted into post-secondary schools (Laskey, 2004). This results in an influx of students who may not have the skills to be successful at the college level. Students may be considered at-risk for achieving academic success for a variety of reasons. According to Maxwell (1997), at-risk students' skills, knowledge, motivation, and/or academic ability are significantly low as compared to students who are not at-risk. As a result, many colleges and universities have had to provide intervention programs, such as, tutoring to attend to the needs of all students especially those who are considered at-risk students (Thompson &Geren, 2002). In addition to tutoring programs some colleges and universities have opted to conditionally admit academic at-risk students. The number of students enrolling in colleges and universities has grown approximately 25% in the past twenty years and the number of academically at-risk students has increased (Heaney & Fisher, 2011).Student success rates have been examined in several ways, such as retention, student engagement, grades, etc. (Hartman, 1990). Student engagement during tutoring sessions has been identified as a key factor to academic achievement, particularly for at-risk students (Hartman, 1990). The conventional goal of tutoring is to help students improve academically; tutoring is also a social process where learning skills improve through social interaction (Hartman, 1990). Research shows that students who are tutored by their peers have more confidence in their ability to master the material (Bobko, 1984) and peer tutoring can be an important part of interaction because peers provide natural contexts for peer behaviors (Klavian& Block, 2008). Vygotsky (1962) proposed that children learn through such social interactions. Intellectual development is achieved when students are involved in learning activities in which they interact with others (Vygotsky, Cole, John-Steiner, Scribner, &Souberman, 1978). Students come to understand information through negotiating meanings with people in the environment, they achieve goals through interacting with instructors, peers, materials, and atmosphere embedded in context (**Kim & Baylor**, 2006).Research conducted by Warren-Kring and Ruthledge (2011), showed student performance improved in reading with one-to-one tutoring. Fuchs, Fuchs, Hamlett, DeSelms, Seethaler, Wilson (2013) also agreed that one-to-one tutoring increased student performance but felt that variables such as, tutor training, total hours of instruction and the expertise of the individuals who implemented the tutoring program may contribute to student success.

Alagappan (2005) suggest one-to-one tutoring sessions offer opportunity to expose the student's preparedness or lack thereof. One-to-one tutoring gives the student and the tutor opportunity to build a mentoring relationship that can develop and inspire the student to learn (Alagappan, 2005). Some tutors prefer to conduct tutoring sessions in small group situations. Group tutoring is more challenging and is limited in terms of the amount of individual attention that can be provided. Furthermore, in-group settings the multiple abilities and backgrounds of students complicate the level and pace of instruction. The tutor has to ensure that the content covered must be suitable for the general needs of the group (Porter, 2013). Research shows that tutoring sessions were significantly more effective when tutoring occurred in combination with classroom instruction (Porter, 2013).Tutoring has several emotional benefits for students, especially at-risk students (Gaustad, 1992). Tutoring, particularly one-to-one tutoring is free of competition and will allow students to set individual goals without comparison to other students. Tutoring sessions allow the students to receive more praise and encouragement; in addition, the tutor has more time to respond to each student, and thus, the student is more likely to demonstrate progress.

## *Method*

Based on the indicated influx and established need for academic support of at-risk students, the current study sought to examine the impact of group tutoring on final grades of these students. Students who attend group tutoring may have an advantage because other students may contribute additional information relevant to questions, whereas, one-to-one tutoring will give the students the undivided attention of the tutor.The research questions of this study is as follows: Is there a significant difference between the final grade earned in a course the student received tutoring when comparing group tutoring sessions and one-to-one tutoring sessions? The null hypothesis tested in the study is as follows: There is no relationship between tutoring conditions (group versus one-to-one) and final grade earned in course of high risk/underprepared students.

## *Participants*

In 2007, a University in the Southeastern United States began the Academic Enrichment Program (AEP), which is a two semester program designed to provide help to students who have been identified as underprepared and/or at-risk, using the University admissions criteria. Underprepared and/or at-risk students who were accepted to the University were admitted with the understanding that their participation in the AEP program was a condition of their admission and enrollment in the University. Students enrolled in the AEP program signed a contract detailing the rules and guidelines of their enrollment.Ninety-five AEP student records were used in the study. The participant records include 15 females and 80 males. Of these participants, 45 were African American, 33 were Hispanic/Latino, and 17 were Caucasian.

## *Procedures*

The academic advisor assigned students to the group or one-to-one tutoring sessions. The group tutoring sessions were held in a classroom that had been designated for the tutoring sessions. The group facilitator had access to all technical equipment, such as, PowerPoint, computers, etc. for presentations. The one-to-one tutoring sessions were held in the tutoring center. Spaces had been partitioned to give some degree of privacy during the sessions. Two computers were available for use during the one-to-one sessions.Tutors had access to instructor manuals for references. Tutors maintained a current log of AEP students who attended tutoring and the name of the course or courses in which they received tutoring. At the conclusion of the tutoring sessions, the researcher was provided with the final grade outcome. This information was analyzed to determine if there was a significant effect of tutoring services on final grade. The tutoring logs and test scores were significant but not high in construct validity.

## *Data Analysis*

This study used an ex post facto design to analyze the tutoring methods of the independent variable, group tutoring compared to one-to-one tutoring. An ANOVA was used to measure differences in final grades for group tutoring and one-to-one tutoring. The final grades are in those courses that the students' received tutoring.The data provided by the Registrar's Office and the Academic Enrichment Program Coordinator included high school GPA scores, SAT, and/or ACT scores and final grades in the courses students received tutoring services. Data were analyzed using the Statistical Package for the Social Sciences (IBM SPSS) 16.0 computer software program. Descriptive statistics were reported for sample demographics, and the independent, and dependent variables of interest.

A one-way ANOVA was used to compare the type of tutoring sessions, such as one-to-one or group to final grade in the course for which the student received tutoring. The ANOVA was appropriate for this study because it has the potential to produce significant values indicating whether there were significant differences within the comparisons being made.

## *Results*

A one way ANOVA was conducted to examine if there was a statistically significant difference in final grades of students who attended group tutoring compared to those who attended one-to-one tutoring. For group tutoring, M = 78.96, SD = 12.50, N = 40, and one-to-one tutoring, M = 66.40, SD = 19.34, N = 55. The ANOVA revealed a statistically significant difference in the final grades of students who attended group tutoring compared to those who attended one-to-one tutoring. The Levene's test of error variances was statistically significant, F (1, 93) = 12.90, MSE = 282.86, $\eta^2$ = .01, p = .001, suggesting that the assumption of homogeneity of variance was not met. One sample Shapiro-Wilk test revealed that final grades of students who attended one-to-one tutoring compared to those who attended group tutoring was normally distributed. The Shapiro-Wilk value was 0.94 ($p$ =.066, $N$ = 40) for one-to-one tutoring and the Shapiro-Wilk value was 0.94 ($p$ = .014, $N$ = 55) for group tutoring. The Shapiro-Wilk tests were statistically significant ($p$< .05) for one-to-one and group tutoring. The null hypothesis there is no relationship between tutoring conditions (group versus one-to-one) and final grade earned in course of high risk/underprepared students cannot be rejected. Means and standard deviation for one-to-one tutoring versus group tutoring are presented in Table 1.

**Table 1ANOVA Results one-to-one tutoring versus group tutoring**

| Source | *df* | *SS* | *MS* | *F* | $n^2$ |
|---|---|---|---|---|---|
| Between Groups | 1 | 3649.01 | 3649.01 | 12.90* | .01 |
| Within Groups | 93 | 26306.50 | 282.80 | | |
| Total | 94 | 29955.50 | 55.00 | | |

*$p$ < .001, one-tailed.

## *Discussion*

Analysis of final grades revealed a statistically significant difference between students who received group tutoring compared to those who attended one-to-one tutoring. The results indicated that students who attended group tutoring had better final grades compared to those who attended one-to-one tutoring. The results of the current study are consistent with previous research (Warren-Kring&Ruthledge, 2011; Fuchs et al., 2013;Alagappan, 2005).The results of this study indicated that tutoring methods are related to final grade outcomes. The data demonstrated that students who received tutoring from their peers had better final grades than those who received tutoring from professional tutors. Tutoring programs that employ tutors who are similar in some way such as age, grade, or academic level to the tutee will increase the efficacy of tutoring programs (Hock, Deshler, &Schumaker, 1999). Further, students learn through social interactions of their peers (Vygotsky, 1962). Research has revealed that not only did students have better final grades with peer tutors but they also had better final grades in a group tutoring setting (Bobko, 1984;Klavian& Block, 2008).

## *Conclusion*

From a social change perspective, college leaders can become aware that the type of tutoring matters in student success. Awareness of the correlations between tutoring methods and grade outcomes may give opportunity for additional support or services to enhance student success. Tutoring sessions can be designed to provide students with an environment in which they will have natural contexts for peer behaviors and social interactions. Further, tutoring sessions can be custom designed that meet specific goals, a tutor can develop rigorous standards while remaining sensitive each student's particular strengths and weaknesses. The current study has set a precedent for future studies with a positive emphasis as tutoring services and methods is further explored in the college population with at-risk students.

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