

Chapter 13

A Delayed Treatment Control Group Design Study of an After-School Online Tutoring Program in Reading

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ABSTRACT

This chapter concerns a year-long, United States federally-funded evaluation of Educate Online, an online, at home, 1:1 tutoring program aimed at improving reading performance for middle school students who are below grade level. Participating students receive after-school instruction from teachers in real-time over Voice over Internet Protocol (VoIP) connections. The researcher discusses study findings, the methodological challenges of conducting research on online tutoring, the multiple perspectives for understanding the effectiveness of a tutoring program, and areas for additional research. The chapter examines a key aspect of the evaluation, a delayed treatment control group design study to determine the effect that involvement in the tutoring program has upon student academic achievement in reading.

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INTRODUCTION

The chapter concerns a year-long, national evaluation of Educate Online (EO), an online, at home, 1:1 online tutoring program aimed at improving reading performance for middle school students who are below grade level. The research was conducted by Rockman et al., a research, evaluation, and consulting company located in the United States. Participating students in the study received after-school instruction from teachers in real-time over Internet connections. A researcher discusses study findings, the methodological challenges of conducting research on online tutoring, the multiple perspectives for understanding the effectiveness of a supplemental education services program, and areas for additional research. The chapter discusses a key aspect of the evaluation, a delayed treatment control group design study to determine if involvement in the tutoring program has an effect upon student academic achievement in reading. The chapter explores two main research questions:

- As indicated by standardized test scores, what is the effect of the online tutoring program on reading performance for students in middle school who are significantly below grade level in reading?
- How, if at all, do differences in participants and amount of treatment mediate the effect?

BACKGROUND

In this section, a literature review of student achievement in after-school programs (both face-to-face and online) is provided. This is followed by a discussion of the political and research context within which the research was conducted; this provides a rationale for the study.

After-School Tutoring and Academic Achievement

In this section, research literature after-school programs and academic achievement is briefly explored. Existing research indicates that quality face-to-face after-school programs can improve academic achievement. The Harvard Family Research Project (2008) poses the question, “Does Participation in After School Programs Make a Difference?” and responds (p. 2):

The short answer is yes...A decade of research and evaluation studies, as well as large-scale, rigorously conducted syntheses looking across many research and evaluation studies, confirms that children and youth who participate in after school programs can reap a host of positive benefits in a number of interrelated outcome areas—academic, social/emotional, prevention, and health and wellness (Little et al., 2008, p. 2).

The policy brief continues by summarizing studies that support this assertion, including a two year longitudinal study of about 3000 students in 35 different schools and a meta-analysis of 35 experimental and quasi-experimental studies that demonstrate positive effects in academic achievement for participating students compared to those who are unsupervised (Vandell et al., 2007; Lauer et al., 2006). Prior research has similarly found increased academic achievement as a result of participation in after-school programs (e.g., Espino et al., 2004; Huang et al., 2000). Reisner (2004) conducted a quasi-experimental study in New York City and found increased academic achievement in program participants. The study involved The After-School Corporation (TASC) program in which data was collected over four school years from 96 TASC after-school projects and their host schools, with a total student sample of 52,000 after-school participants and 91,000 students who were enrolled in TASC host schools but not participating in TASC projects. The TASC

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