

# AlcoholEdu® for College

## Summary of Research - 2010

### The Existing Knowledge Base of Online Alcohol Education

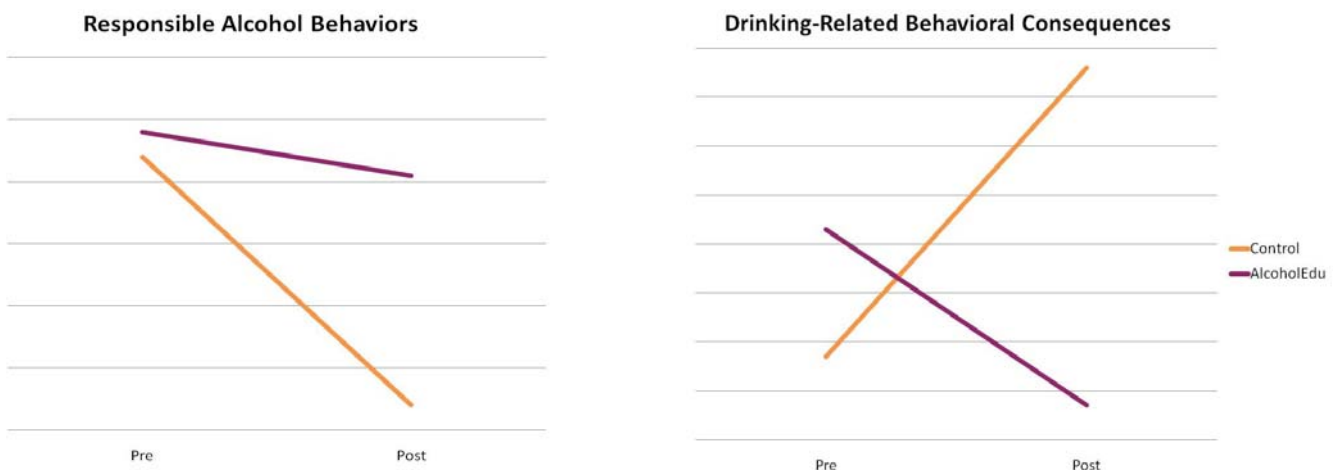
College student drinking remains a serious and growing social problem on American college and university campuses. Over the years, concerted efforts have been made to develop efficacious intervention programs impacting student drinking behavior. Although there is strong evidence for the effectiveness of intervention programs aimed at problematic student drinkers (e.g., BASICS), there remains room for further exploration of prevention and education programs that focus on the overall student population and not just the problematic drinkers. This need for further discussion is especially pertinent due to recent initial findings that suggest online education is an effective tool for alcohol intervention. This review summarizes the existing knowledge base on the efficacy of the most widely used, population-level, online alcohol education program available, AlcoholEdu for College, developed by Outside The Classroom, Inc.

It's important to point out that much of the previous research on alcohol education has focused on decreased alcohol consumption as the central measure of an intervention's efficacy. Although drinking levels need to be a research focus, to get a clear picture of how alcohol genuinely impacts individual's lives, there needs to be a parallel emphasis on alcohol-related consequences, behaviors and attitudes. You will find this emphasis on drinking as well as alcohol-related consequences below as we review five empirical evaluations of AlcoholEdu that have been published in peer-reviewed journals (one is currently *in press*).

### Villanova University Randomized Control Trial

In the fall of 2007, an independent researcher conducted a randomized control trial at Villanova University to evaluate the 2007 version of AlcoholEdu. Compared to students in the control group, students who completed AlcoholEdu:

- Reported having fewer total drinks.
- Suffered fewer drinking-related behavioral consequences.
- Were less likely to expect positive outcomes from drinking.
- Were less accepting of others' alcohol use behaviors.
- Were less likely to be heavy episodic drinkers.
- Demonstrated more alcohol-related knowledge compared to those who had not been exposed to the program.



#### Variables Included in Factor Graphs

**Responsible Alcohol Behaviors:** "During the past two weeks I've eaten food or a meal before drinking"; "I've paced my drinking to one drink per hour."

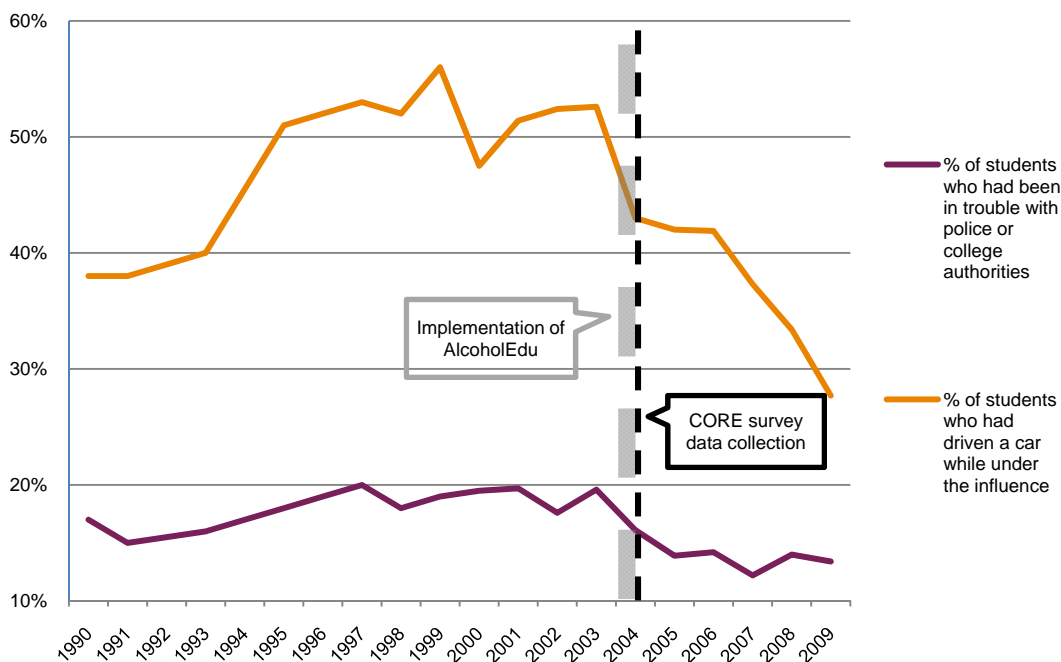
**Drinking Related Behavioral Consequences:** "During the past two weeks I drove after or while drinking"; "...I've intentionally injured others"; "...I've rode with a driver who had been drinking"; "...I've missed a class"; "...I've had unprotected sex"; "...I've attended a class unprepared"; "...I've had difficulty concentrating in class"; "...I've accidentally injured myself or others"; "...I've said things that I didn't mean that hurt others' feelings"; "...I've vomited"; "...I've been more argumentative."

## College of Charleston Time Series Analysis

A study that has been recently accepted for peer reviewed publication presents data from a time series analysis investigating the impact of AlcoholEdu implementation on alcohol-related attitudes, behaviors, and consequences over time. This analysis stems out of two assumptions. First, through repeated randomized control trials, we have found that AlcoholEdu clearly impacts student alcohol-related consequences, behaviors, and attitudes. Consequently, we can expect that an entire institution will experience a positive shift in alcohol-related consequences, behaviors, and attitudes. Second, as a college or university implements AlcoholEdu year after year, we can expect that the institution will eventually create a sustainable culture around healthy drinking behaviors and attitudes that can be maintained through continued implementation.

To conduct this analysis, we utilized data that the university had collected continuously from well before the implementation of AlcoholEdu to the present day. The data used were originally student-level, alcohol-related survey data (e.g., CORE survey). We then aggregated this student-level data to make corresponding university-level data for each year. This data, paired with the type of analysis used (ARIMA: Auto-Regressive Integrated Moving Averages), allowed us to look at the changes in university-level alcohol-related attitudes, behaviors, and experienced consequences, and consequently the impact of AlcoholEdu over time.

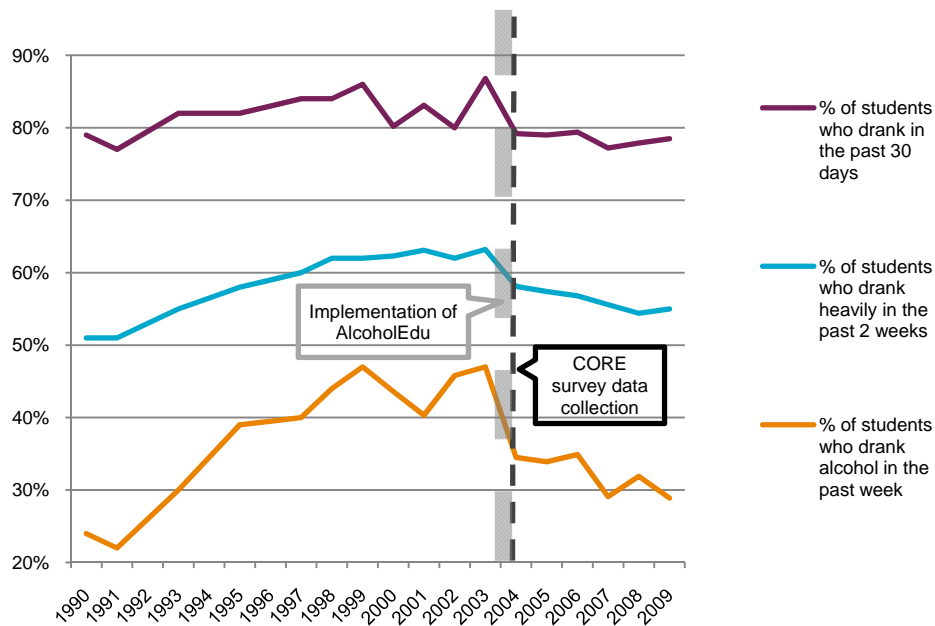
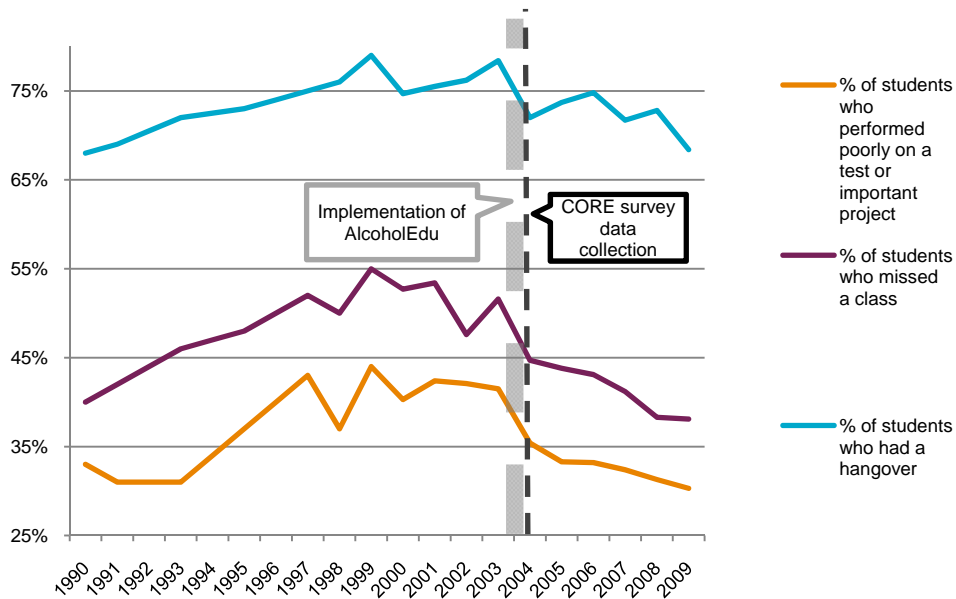
The results of this investigation suggest that AlcoholEdu had a significant and progressive effect on alcohol-related attitudes, behaviors, and consequences at both institutions. More specifically, we found a variety of key outcomes, including findings to suggest that the implementation of **AlcoholEdu significantly decreased the number of students who reported drinking**. Additionally, **AlcoholEdu significantly decreased student's reported likelihood to drive a vehicle after consuming alcohol, decreased the likelihood to have gotten in trouble with authorities, and also decreased the incidence of having a hangover, missing class, and performing poorly on a test or assignment**. Interestingly, these positive results remain constant after the initial implementation of AlcoholEdu, which clearly portrays the lasting impact that the course has on student perceptions and institutional culture.



The vertical dashed lines highlight the fact that in 2004, and in subsequent years, first-year students took AlcoholEdu two or more months before the university administered its annual Core Survey. Thus, the data shown for 2004 and each subsequent year reflect any changes that are associated with AlcoholEdu.



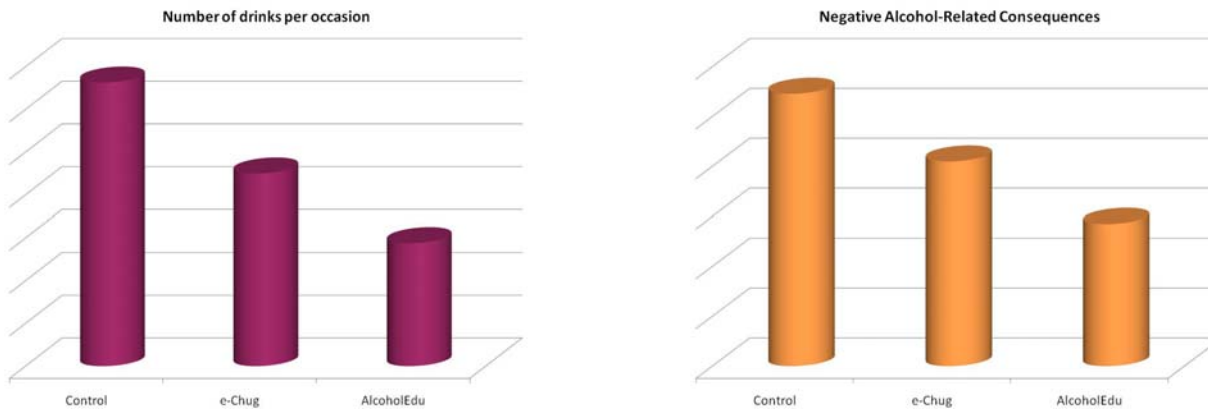
## College of Charleston Time Series Analysis (continued)



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## Roger Williams University Randomized Control Trial

In 2008, Dr. John Hustad, an independent researcher based at Brown University, randomly assigned students at another university to one of three experimental conditions: 1) AlcoholEdu for College; 2) e-Chug; 3) Control (assessment-only). Across the three groups, students who participated in the study had similar demographic and drinking profiles. On every measure, the AlcoholEdu group reported significantly less consumption and fewer drinks per drinking occasion and fewer negative alcohol-related consequences than the assessment-only control group. Additionally, **only the AlcoholEdu group was significantly different than the control group for alcohol-related consequences**, where the AlcoholEdu group demonstrated a 37% decrease in negative alcohol-related consequences, and the e-Chug group demonstrated only an 11% decrease in alcohol-related consequences. The AlcoholEdu group also consumed fewer drinks per drinking occasion, as compared to the e-Chug group.



## Cornell University Randomized Control Trial

To evaluate a customized version of AlcoholEdu from 2004, a second research team conducted a randomized control trial at Cornell University. On a post-intervention survey, students assigned to the intervention group reported playing drinking games less frequently than those assigned to the control group, however researchers found no other significant differences in alcohol-related consequences, behaviors, and attitudes. After reanalysis, several significant weaknesses were identified in the initial investigation. Foremost, the randomization procedure appears to have failed, as there were highly significant baseline differences in prior alcohol-related education and self-reported stage of change between the intervention and control groups. This problem was compounded by the researchers' failure to employ repeated measures analysis of covariance (ANCOVA) when examining the post-intervention outcomes, a standard analysis procedure that controls statistically for baseline differences between experimental groups, whether those differences are statistically significant or not.

## Institutional Cycle Design Investigation

An initial investigation of AlcoholEdu was conducted by Dr. Andrew Wall at the University of Rochester. Dr. Wall employed an institutional cycle design, involving first-year students from 225 colleges and universities, to assess the 2003 version of the course. Students who completed the course were randomly assigned post hoc to a treatment or control group, with the control group's baseline survey assessed against the treatment group's post-intervention survey. Compared to the control group, the treatment group reported:

- o **Less frequent heavy drinking** (5 or more drinks at least once in a two-week period).
- o **Less frequent high-risk drinking** (playing drinking games, pregaming, choosing a drink with more alcohol).
- o **Fewer negative academic consequences** (missing class, being unfocused in class, being unprepared for class, missing a deadline, attending class drunk, attending a class hung over).

Importantly, this investigation found that college students who completed AlcoholEdu experienced about 50 percent fewer negative health, social and academic consequences than students who had not taken AlcoholEdu.



