

## Selected Studies for Social Norms and Personal Response Systems (Clickers)

- Title: **Live interactive group-specific normative feedback reduces misperceptions and drinking in college students: A randomized cluster trial**
- Authors: [LaBrie, Joseph W.](#); [Hummer, Justin F.](#); [Neighbors, Clayton](#); [Pedersen, Eric R.](#)
- Source: [Psychology of Addictive Behaviors](#), 2008, 22, 1, 141-148, American Psychological Association
- Abstract: This research evaluated the efficacy of a live and interactive group-specific normative feedback intervention designed to correct misperceptions of alcohol-related group norms and subsequently reduce drinking behavior. Campus organizations (N = 20) containing 1,162 college students were randomly assigned to intervention or assessment-only control conditions. Participants in the intervention condition attended an intervention during their organization's regular standing meeting. Data were gathered in vivo using computerized handheld keypads into which participants entered personal responses to a series of alcohol-related questions assessing perceptions of normative group behavior as well as actual individual behavior. These data were then immediately presented in graphical form to illustrate discrepancies between perceived and actual behavioral group norms. Results indicated that compared with the control group, the intervention group reduced drinking behavior and misperceptions of group norms at 1-month and 2-month follow-ups. Changes in perceived norms mediated the reductions in drinking. Results demonstrate the effectiveness of a novel, technologically advanced, group-based, brief alcohol intervention that can be implemented with entire groups at relatively low cost.
- URL: <http://www.ncbi.nlm.nih.gov/pubmed/18298241>
- Title: **Comparing electronic-keypad responses to paper-and-pencil questionnaires in group assessments of alcohol consumption and related attitudes**
- Authors: [LaBrie, Joseph](#); [Earleywine, Mitch](#); [Lamb, Toby](#); [Shelesky, Kristin](#)
- Source: [Addictive Behaviors](#), 2006, 31, 12, 2334-2338
- Abstract: Electronic versions of questionnaires have the potential to improve research and interventions in the addictions. Administering questionnaires electronically to groups, however, has proven difficult without a multitude of computers, but

gathering data electronically from a group could make for easy assessment and quick feedback. Using a sample of 107 college students, we examined the validity of wireless keypad survey responses by comparing them to traditional paper-and-pencil questionnaires. The two formats led to almost identical responses that did not differ significantly from each other (all effect sizes less than  $g = .15$ ) and high correlations between formats. The wireless, handheld keypad procedure appears to generate data that are as valid as questionnaire responses and permit rapid feedback to groups, as well as easy, human error-free data entry for analysis.

URL: <http://www.ncbi.nlm.nih.gov/pubmed/16626878>

Title: **Assessment of perceived and actual alcohol norms in varying contexts: Exploring Social Impact Theory among college students**

Authors: [Pedersen, Eric R.](#); [LaBrie, Joseph W.](#); [Lac, Andrew](#)

Source: [Addictive Behaviors](#), 2008, 33, 4, 552-564

Abstract: The social norms approach to college drinking suggests that students misperceive the drinking behavior and attitudes of their peers. While much is known about these misperceptions, research is sparse regarding the context in which perceived and actual norms are assessed. As social influence is pronounced in college, the principles of Social Impact Theory may contribute to differences between assessments performed individually and those completed when surrounded by members of one's salient reference group. The current study examines 284 members of campus organizations in two contexts (online and group) to determine if individuals endorse different responses to questions of perceived and actual drinking norms across contexts. All participants endorsed higher responses on questions of actual and perceived group behavior and of perceived group attitudes towards drinking during the group assessment. Men and students in Greek organizations may be more influenced by the proximity of their peers when presented with questions regarding perceived alcohol use. These results suggest that context of assessment needs to be considered when collecting self-report data from college students.

URL: <http://www.ncbi.nlm.nih.gov/pubmed/18068308>

Title: **Test-retest reliability of alcohol measures: is there a difference between internet-based assessment and traditional methods?**

Authors: [Miller, E.T.](#); [Neal, D.J.](#); [Roberts, L.J.](#); [Baer, J.S.](#); [Cressler, S.O.](#); [Metrik, J.](#); [Marlatt, G.A.](#)

Source: [Psychol. Addict. Behav.](#), 2002, 16, 1, 56-63, United States

Abstract: This study compared Web-based assessment techniques with traditional paper-based methods of commonly used measures of alcohol use. Test-retest reliabilities were obtained, and tests of validity were conducted. A total of 255 participants were randomly assigned to 1 of 3 conditions: paper-based (P&P),

Web-based (Web), or Web-based with interruption (Web-I). Follow-up assessments 1 week later indicated reliabilities ranging from .59 to .93 within all measures and across all assessment methods. Significantly high test-retest reliability coefficients support the use of these measures for research and clinical applications. Furthermore, no significant differences were found between assessment techniques, suggesting that Web-based methods are a suitable alternative to more traditional methods. This cost-efficient alternative has the advantage of minimizing data collection and entry errors while increasing survey accessibility.

URL: <http://www.ncbi.nlm.nih.gov/pubmed/11934087>

Title: **A brief live interactive normative group intervention using wireless keypads to reduce drinking and alcohol consequences in college student athletes**

Authors: [LaBrie,Joseph](#); [Hummer,Justin F.](#); Huchting, Karen K.; [Neighbors,Clayton](#);

Source: Drug and Alcohol Review, 2008, 28, 1, 40-47

Abstract: *Introduction and Aims.* Misperceptions of how members of one's social group think and act influence behavior. The current study was designed to extend the research of group-specific normative feedback interventions among salient campus groups with heightened risk. Although not a randomized controlled trial, this research used normative feedback that was obtained using wireless keypad technology during a live session, within sex-specific student athlete groups to extend the proof of concept of using this brief interactive intervention. *Design and Methods.* Participants included 660 intercollegiate athletes from all varsity athletic teams at two private, mid-size universities. Intervention data were gathered in vivo using computerized handheld keypads into which group members entered in personal responses to a series of alcohol-related questions. These questions assessed perceptions of normative group behavior and attitudes as well as actual individual behavior and attitudes. These data were then immediately presented back in graphical form to illustrate discrepancies between perceived and actual group norms. *Results.* Results revealed that at 1 month post-intervention, perceived group norms, behavior, attitudes and consequences reduced compared with baseline. These reductions were maintained at 2 month follow up. Latent growth modeling suggested that the reductions in perceived norms and attitudes were associated with reductions in individual drinking behavior and negative consequences. *Discussion and Conclusions.* These results are among the first to suggest the effectiveness of a novel, group-based normative alcohol intervention among student athletes. Limitations of the design preclude strong inferences about efficacy; however, the findings support further trialing of such information technology in alcohol treatment research.

URL: <http://www.ncbi.nlm.nih.gov/pubmed/19320674>

**The following sites may also be of use to you:**

**1) Virginia Commonwealth University “What’s Your Strategy?” Clicker Intervention for Athletes and Freshmen**

Virginia Commonwealth University’s Office of Health Promotion was awarded a Model Program grant from the U.S. Department of Education to develop, implement and evaluate interventions audience response systems (aka “clickers”) to reduce alcohol use misperceptions and increase healthy alcohol use perceptions, attitudes and behaviors in athletic teams and first-year orientation classes. For athletes, a clicker presentation called "Team Success" was administered and evaluated during spring 2006. In the fall of 2006, VCU conducted and evaluated a clicker presentation with freshmen orientation classes called UNIV 101.

<http://www.yourstrategy.org/clickers/index.html>

**2) Lowery, Roger C. 2006. “Clickers in the Classroom: A Comparison of Interactive Student-Response Keypad Systems.”**

Presented at the National Technology and Social Science Conference sponsored by the National Social Science Association, Las Vegas, Nevada, April 6, 2006. Retrieved from: <http://people.uncw.edu/lowery/NSSA%20ms.pdf>

This paper examines components and operation of the two most common types of personal response systems: wireless keypad and Web-based input devices. It also provides a brief survey of four decades of published research assessing the impact of personal response systems on teaching and learning.