

Point of Contact: Pearl McElfish pamcelfish@uams.edu 479-264-8690

Title: Conducting Instruments in the Open-source LimeSurvey Application in the National Children's Study.

Authors: Topeka Stacey, B.S.; Umit Topaloglu, Ph.D.; Anthony McGuire; William R. Hogan, M.D., M.S.

Affiliation: Arkansas Study Center; University of Arkansas for Medical Sciences; Arkansas Children's Hospital Research Institute.

Abstract

The Arkansas Study Center (ASC) of the National Children's Study (NCS) conducts Study instruments in real time using the open-source software application LimeSurvey. LimeSurvey is an open-source software package, which is well suited for utilization within the NCS. LimeSurvey allows users to create highly customizable surveys, including multi-lingual settings, various question types, and the ability to implement sophisticated branching/skip patterns. JavaScript routines can be added to questions to implement advanced computation and customized survey behavior. LimeSurvey's many features allow developers to create instruments that mirror the exact requirements of the NCS instruments.

The ASC data collectors use tablet computers to record participants' responses during in-person or telephone interviews (CATI/CAPI). Participants can also complete self-administered questionnaires on the tablets using a touch screen. In this mode, the screen is out of view of the data collector. When the data collector must complete the instrument on paper, staff can enter the data into LimeSurvey at a later date.

All ASC implementations of Study instruments in LimeSurvey are freely available to any study center at <http://code.google.com/p/ncs-open>. Instruments can be accessed by checking them out of the Subversion repository. We also routinely distribute survey instruments through the informatics Google Group, which is accessed by all Study Locations. Other Study Centers wishing to conduct instruments with LimeSurvey need only to install LimeSurvey, import the instrument definitions, make study-center specific modifications, and activate the instruments. The ASC has made its changes to the source code available so other centers can benefit from them as well.