

## ONPAR Project Abstract

The ONPAR project, jointly being carried out by the Center for Applied Linguistics and the WIDA Consortium operating out of the Wisconsin Center for Educational Research at the University of Wisconsin, Madison, will research how to develop and defend the validity of a set of dynamic, computer-based science and math assessment items in elementary and middle school. The intent is that the items and test cores demonstrate comparability, at the test score level, to general scores from large-scale test cores used currently in state assessment systems. In particular, the focus of this project is to develop these items and test cores in such a way that they are valid for English language learner (ELL) students with the lowest literacy in English. This means that expressive and receptive computer capabilities such as animation, video, drawing, assembly, drag and drop, and roll-overs using audio, illustrations, and bilingual stimuli will be used to: 1) radically reduce the language load in the items, 2) provide compensatory avenues in which to present contextual information and target relevant details, and 3) allow students alternative ways to demonstrate what they know other than through classic testing methods. The ONPAR items will be developed to be equivalent to general multiple choice and constructed response science items, however for the most part, different approaches will be used to more appropriately address the needs of this population, while still measuring the same content and cognitive complexity targets. The research approach will be grounded in validity arguments defined across general and ONPAR test forms so that the project can determine under what conditions test scores from different item types and forms might be considered comparable.

The ONPAR science items are being built from secure test forms developed as part of the New England Common Assessment Program (NECAP), and the work is being supported by target documentation and ongoing content and assessment interactions with the NECAP states (Rhode Island, Vermont and New Hampshire). The ONPAR math project, hosted by the Illinois State Board of Education, will select another state's secure test forms as the basis for item development. All ONPAR items will be built to adhere to published content standards and assessment specifications and agreed on item targets as jointly determined by ONPAR and state assessment staff. Iterative cognitive lab trials at several points in late 2007 and 2008 (for science) and 2008 and early 2009 (for math) will inform the development process, and final items will be field tested with a large population of students in fall 2009. Preceding the field testing, science items will be

trialed in controlled studies at two grades (8<sup>th</sup> in May 2008 and 5<sup>th</sup>, with 4<sup>th</sup> grade items, in October-November 2008). The controlled studies are aimed at informing questions relating to the extent of language attenuation possible in ONPAR items and the question of how language attenuation relates to item accessibility. At each step, information gleaned on research questions will be integrated and addressed to inform subsequent item construction and piloting processes and data will be analyzed to evaluate the defensibility of the products. The final aim of the project is to guide the development of future operational forms of core items designed to assess common content standards across states at appropriate levels of cognitive complexity.

For additional information about the project, please contact the principal investigator, Rebecca Kopriva ([rkopriva@wisc.edu](mailto:rkopriva@wisc.edu)) or the program manager, Jim Bauman ([jim@cal.org](mailto:jim@cal.org)).