

Appendix E

District/School Memorandum of Understanding (MOU)

Instructional Research Group

MEMORANDUM OF UNDERSTANDING (MOU)**School District:** (insert district name)**Research Entity:** Instructional Research Group**Project Title:** A study of reliability and consequential validity of a mathematics diagnostic assessment system in Georgia**Funding Agency:** U.S. Department of Education**Contract Number:** ED-IES-17-C-0011**Principal Investigator:** Dr. Russell Gersten**Co-Principal Investigators:** Drs. Madhavi Jayanthi and Daniel Anderson

Instructional Research Group plans to conduct a study in (insert district name) to determine the reliability and validity of two linked math assessments currently being used in your district, the Individual Knowledge Assessment of Number (IKAN) and the Global Strategy Stage (GloSS). This document outlines an agreement between Instructional Research Group and (insert district name) of the roles and responsibilities associated with the study. It is intended to facilitate communication throughout the study by establishing clear expectations for both partners in advance. The study is being carried out under a contract between the United States Department of Education, Institute of Education Sciences and REL Southeast at Florida State University (FSU). Instructional Research Group (IRG) is a subcontractor to FSU.

Purpose of the Study

As part of this study, teachers will administer the IKAN and GloSS assessments, complete a survey, and participate in a focus group. These assessments help teachers understand how each student solves math problems. The study will also assess the consequential validity of these assessments by looking at how teachers include these data in making instructional decisions. The study will be conducted during the (insert school year) school year.

Importance of the Proposed Study

The Georgia Department of Education (GaDOE) has received positive feedback through testimonials from regional and district-level personnel and math coaches supporting the use of IKAN/GloSS. However, no one has conducted a reasonably objective study of reactions of teachers who use these measures. Also, limited psychometric data exists to support the use of these measures. GaDOE has not conducted reliability or validity studies using its student population. While many studies have been conducted in New Zealand by the Ministry of Education, most of these are qualitative in nature. Participating Georgia school districts and the GaDOE are interested in psychometric data using teachers and students in their state in the context of their state system of standards, assessments, and accountability. Thus, through the Improving Mathematics Research Alliance, the GaDOE requested REL Southeast conduct a study to determine the reliability and validity of the IKAN/GloSS diagnostic assessments.

Benefit to (insert district name)

The GloSS assessment provides information on the strategies the students used when solving mathematical problems, and the IKAN assessment provides information on students' number knowledge. When used together, the IKAN and GloSS assessments furnish teachers with information on how students solve mathematics problems and students' understanding of whole and rational number concepts. Teachers can then use the information from the assessments to tailor their instruction to students' levels of understanding and address problems that underlie lack of success with grade-level curriculum.

By collecting data for this study, REL Southeast is providing Georgia and other interested states information on whether the IKAN and GloSS assessments produce reliable data for assessing strategy and skills in mathematics. This data collection is essential because if shown reliable, Georgia can move forward in encouraging their use across the state. If the results of this study show the assessments as not reliable, then Georgia can begin to search for alternative assessments that provide similar information.

Institutional Review Board (IRB) Approval

This study meets the requirements for a research study and received approval on **Month Day, Year** from the Institutional Review Board (IRB), IntegReview, 3815 S. Capital of Texas Highway, Suite 320, Austin, Texas, 78704.

Responsibilities of Instructional Research Group Research Staff

The research staff will implement all aspects of the study and will aim to reduce the burden on school and district staff. The research staff will

- Facilitate the enrollment of schools and teachers into the study.
- Obtain informed consents from teachers and parents and student assent.
- Schedule professional development sessions at each site.
- Schedule student assessments.
- Conduct observations of the student assessments.
- Ensure confidentiality of data gathered and minimize interference and interruption with academic activities.

Assistance from School/District

The school/district will

- Provide the following data for each student in the study: gender, DOB, and ethnicity/race.
- Assist the research team with sending home parental consent.
- Assist the research team with the scheduling of professional development sessions, student testing, and focus groups.

Responsibilities of Participating Teachers

| <i>Participation Activities</i> | <i>Time Commitment</i> |
|--|-----------------------------------|
| Consent & demographic form | 12 minutes |
| <i>Note: A total of 2 release days from instruction will be granted for participants to attend a two-day professional development training (2 × 6 hours per day = 12 hours total).</i> | |
| Administer student assessments* | 30 minutes (during class time) |
| Online survey | 12 minutes |
| Focus group (if selected to participate) | 90 minutes |
| TOTAL estimated participation time | 2.4 hours |

*The research team estimates that each participant will administer 3–6 assessments (i.e., a maximum time commitment of 3 hours). Fidelity of testing administration will be checked for 15% of the administration sessions for the IKAN and GloSS assessments. Observations will occur in person.

Teacher Stipend

Each participating teacher will receive \$20.00 for completing the online survey. This represents a typical rate paid in the state for time outside of the regular teacher contract with the district. Teachers will be granted by the district/school up to two release days from instruction to participate in two 6-hour professional development training sessions. If PD sessions take place during the work day and teachers are released from teaching responsibilities, the study team will share the cost of a substitute (if needed) with the school or district. If PD sessions take place outside of the school day (i.e., on Saturdays or after school), then teachers will be compensated the typical hourly rate (varies by state and district and often by seniority) for the time they spend attending the sessions. If teachers are selected to participate in a focus group, it is expected to occur outside of the school day (i.e., on a Saturday or after school), and they will be compensated the typical hourly rate (varies by state and district and often by seniority) for the time spent attending the focus group.

Confidentiality of Data

Information collected for this study comes under the confidentiality and data protection requirements of the Institute of Education Sciences (The Education Sciences Reform Act of 2002, Title I, Part E, Section 183). Responses to this data collection will be used only for statistical purposes. The reports prepared for the study will summarize findings across the sample and will not associate responses with a specific district, school, or individual. Data will not be reported at the individual level. All information gathered will be aggregated data (e.g., teachers did...). Teacher, student, school, and school district names will not be identified or released in any of our reports.

Contact Information

Dr. Madhavi Jayanthi (Office: 714-826-9600; Cell: 949-735-8045; Email: madhavi@inresg.org).

Signature

District Representative, Name/Title

Date

District Representative Signature

Russell Gersten, Ph.D., Principal Investigator

IRG Representative, Name/Title

Date



IRG Representative Signature