Executive Summary

The Effect of the unitedstreaming™ Application
on Educational Performance

- This evaluation examined the effectiveness of the unitedstreaming™ application, a proprietary application that uses technology to deliver standards-based video content and support materials to students and teachers.

- Because research shows that video content engages students, improves teacher performance, and changes student-teacher interaction in ways that facilitate student achievement, strong reasons exist to expect the unitedstreaming application to enhance educational performance.

- Investigators executed a series of four experiments designed to test this hypothesis: (1) a third grade science experiment, (2) a third grade social studies experiment, (3) an eighth grade science experiment, and (4) an eighth grade social studies experiment.

- These experiments included students from three districts in the state of Virginia, involved the participation of numerous schools and teachers, and examined two grade levels (third and eighth) and two areas of content (science and social studies).

- The design of the experiments involved a pretest examination, followed by a month of exposure to at least 30 content-relevant video clips delivered via the unitedstreaming™ application (or not), and a

subsequent posttest administered approximately one month after the pretest. It included random assignment of classes to either an Experimental Group, those receiving instruction incorporating the unitedstreaming™ application, or a Control Group, those receiving instruction without exposure to the unitedstreaming™ application.

- The results indicated that for all experiments Experimental Group and Control Group students performed nearly equivalently on the pretest, so that randomization had the initial effect of producing nearly equivalent groups.

- Furthermore, generally both Experimental Group students and Control Group students improved substantially from the pretest to the posttest.

- Nevertheless, in three of the four experiments, Experimental Group students, i.e., those exposed to the unitedstreaming™ application, improved at a substantially greater rate than did the Control Group students, i.e., those not exposed to the unitedstreaming™ application. In sum, the unitedstreaming™ application enhanced performance substantially in three of the four cases considered.

- Results for the one exception, the eighth grade science experiment, may have resulted from the substantial time lag between teachers receiving training in the unitedstreaming™ application and their implementing it in the classroom, a delay produced by logistical difficulties in finding common content covered in the schools participating in this experiment.

- These results generalized substantially across units of analysis (district/school, teacher/student) and examination items.

- The data allowed investigators to eliminate possible artifactual explanations, such as missing data, differential attrition, and participation in other experiments as explanations of these findings.

- Important limitations to the results remain. Specifically, the experiments examined two areas of content and two grade levels. One cannot draw a warranted conclusion about the effects of this application to other grade levels, particularly those higher than eighth or lower than third, and to other content areas.

- Furthermore, one cannot generalize the results beyond the specifics of the technology and training employed. Put differently, one could well expect other streaming sites, other training regimens, or both to produce different outcomes than those reported here.

- In summary, a cumulation of the results shows that the Experimental Group students' improvement exceeded Control Group students' improvement by an average of 12.6%. These experiments provide evidence consistent with the hypothesis of the unitedstreaming™ application's effectiveness in increasing students' achievement within these grade levels and content areas.