The purpose of this survey was to describe and analyze the perceptions of elementary school teachers’ in a Midwestern state concerning their use of a science kit program, including to what extent a school’s state science assessment scores can be predicated from the level of science kit usage. Prior research indicates that elementary school teachers lack the confidence in teaching science primarily because of their weak undergraduate training in inquiry-based instruction and the lack of a strong science background. Authors such as Dickerson et al. (2006) and Riggs and Enochs (2006) argued that science kits and the materials included in them are valuable in increasing teacher confidence.

In this study, the teachers’ perceptions that were collected matched the literature quite closely as far as what the teachers found to be of the most value and use. Teachers’ perceptions of the science kits were positive including: (a) student engagement in using the science kits, (b) use of most of the instructional items included in the kits, (c) the amount of teacher confidence in using them, (d) the support from the math and science center for using them, (e) and the professional development provided. Teachers liked using many components of the kits, especially the experiments. Their main complaint concerned time: time to teach science and time to complete the kit lessons.
This study used multiple regression to understand the components of the kit program that had a significant correlation to the state test scores. The following variables could explain a high proportion of the variance (.796): (a) teacher confidence, (b) student science learning success, (c) teacher beliefs about science education and (d) the percentage of students eligible for the Free and Reduced Price School Meals program. These findings might lead to school principals and teachers increasing their 5th grade state science exam scores by using the findings to identify which components of the kit program are most important in this endeavor.