

**Expanded Keyboard
Summary Output Report
Responses from TTPT Part 1**

The Expanded Keyboard project began on September 30, 2015, and will continue until September 29, 2017. We are creating/developing an expanded keyboard that makes it easier for kids who have difficulty with fine motor control to use a graphing calculator. This project addresses an important unmet need. The problem is some children lack the fine motor control skills needed to successfully operate a Texas Instruments graphing or scientific calculator. This product solves the problem/fulfills the unmet need by providing an enlarged, lightweight, independently powered replica of the keyboard face of these calculators. Alternatives presently used by consumers include computer programs offering graphing capabilities. However, the product being developed is superior because it offers access to the same calculator being used by a student's peers. Features include enlarged key size, reducing an individual's need for fine motor control, tilt adjustable cover to improve display visibility, lightweight design with physical dimensions similar to a laptop, and battery powered operation.

Once it is available in the market, the product will be used by students who lack the fine motor control skills necessary to operate a standard scientific calculator, but wish to take courses in chemistry and mathematics. The product may be paid for by a user's caregiver, friend or relative.

To complete this project, we plan to conduct development activities; and some activities will be performed by external parties. Problems may be encountered while the product is being created. During development, we may encounter problems while enabling the interface to control the calculator's functions. When selling the product, there may be limited acceptance from teachers and school boards when students require this technology to complete tests. We will overcome these problems by working closely with the calculator's manufacturer to ensure we can achieve seamless functionality. We will work with teachers and school administrators to address their concerns regarding use of the technology for tests.