**The Impact of Spreadsheets in Education**

**Why Teachers Use Spreadsheets**

Spreadsheet programs are in widespread use in classrooms at all levels of education. Teachers use them primarily to keep budgets and gradebooks and to help teach mathematical topics. They offer teachers and students several kinds of unique benefits.

* **Save time** — Spreadsheets save valuable time by allowing teachers and students to complete essential calculations quickly. They save time not only by making initial calculations faster and more accurate, but their automatic recalculation features also make it easy to update products such as grades and budgets. Entries also can be changed, added, or deleted easily, with formulas that automatically recalculate final grades.
* **Organize displays of information** — Although spreadsheet programs are intended for numerical data, their capability to store information in columns makes them ideal tools for designing informational charts such as schedules and attendance lists that may contain few numbers and no calculations at all.
* **Support asking "what if" questions** — Spreadsheets help people visualize the impact of changes in numbers. Since values are automatically recalculated when changes are made in a worksheet, a user can play with numbers and immediately see the result. This capability makes it feasible to pose "what if" questions and to answer them quickly and easily.
* **Increase motivation to work with mathematics** — Many teachers feel that spreadsheets make working with numbers more fun. Students sometimes perceive mathematical concepts as dry and boring; spreadsheets can make these concepts so graphic that students express real delight with seeing how they work.

**Research on the Impact of Spreadsheet Use**

Although spreadsheets are widely believed to help students visualize numerical concepts better than other, no dynamic tools, row studies have attempted to capture their comparative impact on achievement. Studies show, however, that spreadsheets can be useful tools for teaching concepts in many areas, including algebra problem solving, meteorology, statistics Black, and calculus. The literature contains numerous testimonials by teachers who have used spreadsheets successfully in teaching topics ranging from mathematics to social studies.