

# HIGH TECH SUPPORT FOR TEACHERS: A REVIEW OF GRADEBOOK SOFTWARE

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Think back to the moment you decided to teach. Did you visualize inspired lectures in the college classroom, followed by discussions after class with small groups of students? Did you see yourself as someone similar to Jaime Escalante (*Stand and Deliver*) or perhaps John Keating in *Dead Poets Society*?

Chances are, what you didn't visualize were activities like verifying class rosters, identifying an equitable grading system, adding and dropping students from the class roll, or calculating, assigning and reporting student grades in the rush at the end of the quarter. Clearly none of us entered the field with these tedious administrative tasks in mind. However, they form a crucially important component of the job.

During the spring quarter, 1992, a group of students in CS 360 began a research project concerning current and future technological support for these administrative tasks. The project satisfied one of the requirements in CS 360, a course in systems analysis and design for information systems (IS) and computer science (CS) majors. The results reported here are largely due to their extensive efforts (Table 1).

The project was divided into two parts. The first part, in which many KSC faculty participated, involved a campus survey of current use of technology for grading and other tasks. The second part, completed just recently, involved a review of available software to support these tasks (Table 2).

Faculty response to the mailed surveys was quite positive. Out of 306 faculty members, 105 or about 34% responded. Of those responding, over 90% were interested in participating in the review of software. Clearly, there is a great deal of interest in this area. Table 1 summarizes the results from this initial survey of technology used by faculty.

Today, most faculty members at KSC have a PC or Macintosh available for personal professional use. These machines are primarily IBM or IBM-compatible. Less than half of the faculty members use some type of software support for gradebook activities. Most of those using manual gradebook methods are interested in future automation of these tasks. Virtually all faculty members are interested in learning more about relevant technological support.

The second part of the study focused on the review of available software. To date, nine gradebook-type software packages have been examined. Because many faculty members are familiar with Lotus 1-2-3, the student team designed and developed a Lotus prototype (GRADING SPREADSHEET - GRASP) for use by any interested faculty member. Spreadsheet files and user documentation are available.

Each package was examined for performance in areas related to ease of use, flexibility, and growth potential. Table 2 summarizes preliminary results.

## CURRENT HARDWARE

IBM/Compatible .....	93
Macintosh .....	9
None .....	3
TOTAL .....	105

## CURRENT GRADEBOOK SOFTWARE

Lotus/QuatroPro .....	18
Diploma (I,II,III) .....	13
dBase .....	2
MicroSWAT III .....	1
other .....	10
None .....	61
TOTAL .....	105

Table 1. KSC Faculty Survey of Gradebook Software Use

## PACKAGE FEATURES

	Diploma	VARgrade	GRASP	SWAT	Prograde	Grade-Keeper**
Ease of use	Y	N	Y	Y	N	Y
Sort by name	Y	Y	Y	Y	Y	Y
Sort by SSN or I.D.	Y	Y	Y	Y	N	Y
Attendance feature	N	Y	N	Y	Y	N
Comment feature	Y	N	Y	Y	N	N
Edit grades, names entered	N	Y	Y	Y	Y	Y
Enter fractional grade	N	Y	Y	N	Y	Y
High, low, median grade	Y	Y	Y	Y	Y	Y
Drop lowest grade	Y	Y	Y	Y	N	Y
Lists cumulative grade	Y	N	Y	Y	N	Y
Lists distribution of grades	Y	Y	Y	N	Y	Y
Average a category of grades	Y	N	Y	Y	N	Y
Curve grades in one column	Y	N	Y	Y	N	Y
Weight grades	Y	N	Y	Y	Y	Y
Point-based system (alt.)	Y	Y	Y	Y	Y	Y
Back-up features	Y	N	Y	N	N	Y
On-line help	N	Y	Y	Y	Y	Y
Context-sensitive help	N	Y	Y	N	N	N
Password protection	N	Y	Y	N	N	N
Printing flexibility	Y	Y	Y	Y	Y	Y
View more than one student	Y	N	Y	Y	N	Y
Multiple classes	Y	Y	N	Y	Y	Y
Number of grades / students	50	10000	200	40	unl	unl
Number of students / class	25	32000	8000	80	unl	unl
Test generator	Y	N	N	Y	n	N
Calculator	N	N	N	Y	n	N
Approximate cost *	90	35	-	41	45	80

\* Costs are based on single purchase price. Site licenses and other alternatives may be used to reduce the overall cost to KSC.

\*\* Author's personal preference.

Table 2. A Comparison of Gradebook Software Packages