DOCUMENT RESUME

ED 416 322 CE 075 685

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TITLE A Comparison of Ten-Key and Top Row Numeric Entry.
PUB DATE 1997-12-10
NOTE 5p.; Paper presented at the American Vocational Association Convention (Las Vegas, NV, December 10, 1997).
PUB TYPE Reports - Research (143) -- Speeches/Meeting Papers (150)
EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Business Education; *Business Skills; Community Colleges; *Keyboarding (Data Entry); *Office Machines; Two Year Colleges

ABSTRACT

A study sought to determine the change in speed and accuracy after 5 hours of practice on a standardized test for 10-key numeric entry at the community college level. Specifically it sought to determine how much speed and accuracy will increase or decrease after 5 hours of practice on a 10-key numeric entry test as compared to top-row numeric entry using the same test. The study involved four classes of numeric keyboarding at a community college. Test scores collected at the end of each semester showed the following: (1) 10-key numeric entry is the fastest and most accurate method of input; (2) students using 10-key had a higher rate of improvement than students using top-row numeric entry. The study recommended that students continue to practice to improve their grade in either 10-key or top-row numeric entry, with records kept so students and instructors can easily track progress. (KC)

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ED 416 322

A COMPARISON OF TEN-KEY AND TOP ROW NUMERIC ENTRY

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Presented at:

Business Education Research Session
American Vocational Association
Las Vegas Hilton
December 10, 1997

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Background:

In a 1980 study comparing bookkeeping and/or accounting tasks performed, workers were asked to rank tasks from high to low in the categories of frequency, performance, and importance (Jenkins, 1980). Teachers and entry-level employees ranked ten-key adding machines high in each category. In a 1981 study, administrative assistants placed more emphasis on the basic skill of ten-key numeric input than any other task (Greathouse, 1981). Ninety-one percent of secretaries in a 1980 study indicated the operation of adding machines and calculators was performed more regularly than all other duties including dictation, filing, record-keeping and petty cash maintenance (Johnson). More and more ten-key pads are being used in business. Therefore, students with ten-key touch-method competencies have a valuable skill that will give them a competitive edge in the automated workplace (Pasewark, 1995).

Purpose of the Study:

The purpose of this study was to determine the change (increase or decrease) in speed and accuracy after five hours of practice on a standardized test for ten-key numeric entry at the community college level. Further, by how much will speed of input increase or decrease as well as the number of errors decrease or increase after five hours of practice on a standardized ten-key numeric entry test as compared to top row numeric entry using the same test after five hours of practive.

The study sought answers to the following research questions: (1) By how many strokes a minute will a student's speed increase or decrease after five hours of practice on the ten-key numeric keypad utilizing a standardized test in intermediate keyboarding? (2) By how many errors a minute will a student's error rate decrease or increase after five hours of practice on the ten-key numeric keypad utilizing a standardized test? (3) How much faster or slower is ten-key numeric entry compared to top row numeric entry? (4) How much more accurate or inaccurate is ten-key numeric entry compared to top row numeric entry?

Data Collection Sources and Methods:

The study involved four classes of intermediate keyboarding classes at a community college. The data were collected during the spring and fall semesters, 1996. All students enrolled in the intermediate keyboarding classes were included in the study. The instructors were contacted utilizing a cover letter which requested that they submit the test scores of the students at the end of each semester.

The classes were given the same standardized numeric entry test that had been used since 1969 and proved to be valid. Following each one hour of practice, the students were expected to be tested for 3 minutes. At the conclusion of each three minute test, the total strokes were divided by three for strokes a minute. There could be no more than one error per minute for the test to count toward the semester grade.

The scores were collected by the researcher at the end of each semester.

Findings:

The findings for the study include:

1. Ten-key numeric entry is the fastest method of input by 73 strokes a minute and the most accurate by .81 errors a minute.

2. Overall, 71% of students testing consistently earned a higher final grade in ten-key numeric entry than in top row numeric entry. Twenty-nine percent of students testing consistently earned the same grade for top row and ten-key numeric entry.

Conclusions:

1. Students who tested consistently in ten-key numeric entry had an average increase in SAM of 2.0 after 5 hours of practice compared to an average increase of .89 SAM each for top row numeric entry.

2. The average decrease in EAM after 5 hours of practice for students testing consistently for ten-key numeric entry was .04. The increase was .01. The decrease in EAM for top row was .03. The increase was .82.

3. For students testing consistently in top row and ten-key numeric entry, SAM was faster by 73 in ten-key numeric entry.

4. Ten-key numeric entry was more accurate than top row numeric entry by .81.

Recommendations:

1. After a grade has been established in either top row or ten-key numeric entry, students should continue to test to try to receive a higher grade if the established grade was not an A.

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2. If the established grade is earned before the end of the testing period for top-row or ten-key numeric entry, students should continue to test after an A has been established to maintain SAM/EAM.

3. Students should submit practice test in the required time frame of one a week.

4. Records should be kept of every test taken even if it is not on the grade scale so students and instructors could easily see progress.

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Title: A Comparison of Ten-Key and Top Row Numeric Entry

Author(s): J. Kelly Strader and Dr. Clora Mae Baker

Corporate Source: AVA - Business Education Research Session

Publication Date: Dec. 10, 1997

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