


AN ABSTRACT OF THE THESIS OF

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Title: Perceived Value of Manual and Computerized Accounting Instruction

Abstract approved: 

The purpose of this study was to survey students regarding which method of instruction was most beneficial for students enrolled in college accounting courses. Did students who received traditional accounting instruction in high school perceive they were better prepared for college level basic accounting courses than students who received integrated computerized accounting instruction in high school?

Summary

A questionnaire was administered to students in accounting classes at a state supported midwestern university and students at a state supported urban midwestern university. Data from the questionnaire was collected and analyzed. Conclusions were drawn from the data and recommendations were made.

Conclusions

1. The majority of students receiving manual accounting principles instruction only at the high school level felt they were somewhat prepared to take college level accounting classes.
2. Students receiving manual accounting principles along with integrated computerized accounting instruction at the high school level felt they were very well prepared to take college level accounting classes.
3. Students who received instruction in varying accounting software packages (i.e., Peachtree, Quicken) felt they had no advantage when taking college level accounting classes.

Recommendations

1. Business education teachers should utilize a combination of manual and integrated computerized accounting instruction at the high school level.
2. Business education teachers should continue to emphasize manual accounting principles in order to prepare students well for manual accounting theory at the college level.
3. Computerized accounting instruction using commercial software or spreadsheet software at the high school level does not need to be taught in order for students to be prepared for beginning accounting courses at the college level.
4. A future study should be conducted to determine the trends in accounting theory teaching methodologies and in the application of computerized accounting instruction.

PERCEIVED VALUE OF
MANUAL AND COMPUTERIZED
ACCOUNTING INSTRUCTION

A Thesis
Presented to
the School of Business at
Emporia State University
Emporia, Kansas

In Partial Fulfillment
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Master of Science in Business Education

by
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CHAPTER 1

Introduction

Accounting procedures in business and accounting courses at the high school level have changed in recent years because of new computerized procedures. The subject matter taught and the teaching methodologies used seem to vary from school to school.

Many high school students continue their education in the field of business at the college level. It is important to determine the best type of high school accounting instruction to prepare students for college accounting courses.

Accounting I and II are courses offered within the high school business curriculum. The content of these courses vary based on what the individual instructor has determined best meets the objectives of the course and on the method of instruction preferred by the individual instructor.

Generally two accounting courses are taught at the college level which are required of all business majors. These courses, Financial Accounting and Managerial Accounting.

The most effective form of instruction would be one that allows students to meet the objectives and requirements of the course. However, guidelines and standards for instruction and course content may depend on whether the purpose is to prepare the students for college accounting education or to prepare students to enter the workforce. The content of accounting courses may include basic principles, manual accounting simulations, integrated computerized applications, computerized simulations or a blending of all.

A traditional approach is to teach basic accounting principles and manual accounting simulations such as practice sets. Students would be taught a complete understanding of the accounting process but have no exposure to computerized accounting.

The computer assisted approach to teaching accounting includes some basic accounting theory with greater emphasis placed on automated accounting software integrated throughout the course. Accounting software automates processes such as journalizing and posting and allows students to complete accounting procedures without having a thorough understanding of the processes themselves. With more accounting teachers using the computer assisted approach, a question arises concerning whether or not high school students acquire sufficient basic accounting principles to prepare them for college level accounting courses.

The Problem

As high school students prepare for college accounting courses a concern arises that students may possess computerized accounting skills but they may not possess the theory and basic knowledge of accounting principles needed to be successful in college accounting classes.

Statement of the Purpose

The purpose of this study was to survey students regarding which method of instruction was most beneficial for students enrolled in college accounting courses. Did students who received traditional accounting instruction in high school perceive they were better prepared for college level basic accounting courses than students who received integrated computerized accounting instruction in high school?

The purpose of this study was to determine the following:

1. Should high school level accounting students be taught a combination of manual accounting theory and integrated computerized accounting in preparation for college accounting?
2. Does manual accounting instruction adequately prepare high school level students for college level accounting courses?
3. Does teaching integrated computerized accounting adequately prepare high school level students for college level accounting courses?
4. Should other types of computerized accounting software be taught at the high school level to prepare students for college level accounting courses?

Importance of the Study

As high school level accounting instructors evaluate current curriculums, they need to revise programs to adequately meet the needs of students. It is

important to determine the type of high school accounting instruction that best prepares students for college level accounting courses.

The steady increase in the use of computers in business has brought about rapid changes in accounting procedures. Pillsbury and Ripperger (1983) stated, "Of all advances made over the years in the accounting field, the computer has had the greatest effect on the handling of accounting data." While some businesses still use manual accounting procedures, many businesses use computerized accounting programs or spreadsheets to do their accounting work.

Although most business educators agree that computerized accounting software should be taught in the high school accounting curriculum, few teachers agree on how much computerized accounting instruction should be implemented (Graham, 1993).

Delimitations

This study was restricted to a survey of students enrolled in basic accounting courses at a state supported regional university and at a state supported urban university. This study was delimited to the following two methods of instruction: integrated computerized accounting instruction and traditional instruction.

Limitations

The basis of the research design was limited to the opinions of students enrolled in college level accounting courses. The value of the results are dependent on the objectivity of the students' responses.

The impact of the size of the population surveyed should be acknowledged when making generalizations to other populations. The information gathered regarding students' accounting instruction background was limited to the responses given by students enrolled in college in beginning level college accounting courses including Financial and Managerial Accounting.

Definition of Terms

The following definitions related specifically to this study are defined to be:

Accounting

Accounting is the art of recording, classifying and summarizing financial transactions and events and interpreting the results (Guerrieri, 1993).

Basic Accounting Principles

Basic accounting principles would include the understanding of the complete accounting cycle from opening accounts through all aspects of manual accounting including journalizing and posting adjusting entries and closing accounts for the fiscal period.

Integrated Computerized Accounting Software

Integrated computerized accounting software is designed to be used with the theory and exercises presented in the textbook. Computerized procedures are integrated into the narrative of the textbook, providing accounting software awareness for all students. Accounting software applications such as Peachtree and Quicken are also utilized in the course to reinforce accounting principles.

Traditional Accounting Instruction

Traditional instruction is taught using the lecture method and structured to lead all students through the accounting cycle without the use of computer assisted software.

Methods of Procedure

For this study, students completing Accounting I and Accounting II at a state supported urban university and completing Financial Accounting and Managerial Accounting at a state supported regional university filled out questionnaires to determine the content and perceived value of their previous accounting education at the high school level. Questions were asked regarding the number of accounting courses taken at the high school level and the type of instruction received in each of those classes. Information obtained from the survey was analyzed to ascertain from students if they felt their high school level accounting classes prepared them adequately for the college level accounting classes.

The cover letter and questionnaire were filled out by each student enrolled in college level accounting classes who had taken high school accounting courses. A follow-up letter was sent to all of the students not responding by the deadline for returning the survey. Examples of the cover letter, survey and follow-up letter are included in the Appendix.

The findings regarding student perceptions of accounting instruction were analyzed. Conclusions were drawn as to the perceived value of traditional and computerized accounting instruction as preparation for college courses. After the information from the surveys were evaluated, recommendations were made for utilization of the results and for further research in this area.

CHAPTER 2

Review of Related Literature

Teaching Accounting Principles

Accounting is a popular course at the high school level. It is a means of career exploration. Accounting as a profession has become more visible and students have the opportunity in high school to develop an awareness of accounting and its function in the business world and society. A number of researchers have identified important accounting principles that should be taught.

Accounting is based on a logical system of debits and credits. Accounting courses teach students organization, logic and a deductive thought process to use for problem solving. Accounting information is used for decision making purposes. According to Hellmuth (1991), throughout the accounting course a logical decision making process and an organized approach to gathering and analyzing data is emphasized. Accounting, in both methodology and instruction, has remained relatively static in the past. The changing face of business practice in recent years, however, suggests that some modifications are now in order (Getter & Gilbertson, 1992).

According to a study by Graham (1993), participants were asked whether or not they required entry level employees to have a thorough knowledge of the complete accounting cycle. In support of teaching accounting theory, results of that study showed 60% answered yes, 10% answered no and 30% indicated it was not needed for beginning positions but would be needed if employees wished to advance. Results of that study also showed 48% of the companies hire high school graduates for entry level positions while 52% answered they never or rarely do so.

In a recent issue of Business Education Forum, Thomas and Thomas (1994) identified a number of skills important to accounting students entering the 21st century. They identified the following skills: (1) analyzing and interpreting information, (2) reasoning and problem solving, (3) conjecturing (forecasting), (4) speaking and presenting, (5) listening, and (6) writing.

Teaching with Computerized Accounting Software

One of the first steps in a new accounting system is to establish the general ledger chart of accounts. This is a perfect computer-entry application, which removes the tedium of hand writing the chart of accounts. The opening balances are recorded as an opening entry in the general journal and then posted to the general ledger accounts. In integrated computerized accounting, opening balances can be keyed in quickly. Before keying in the opening balances students must be taught about normal account balances (debit and credit) and how each classification of accounts is increased and decreased. This approach would be different from starting out with the basic accounting equation, T accounts, and how account balances change with debits and credits (Wasson, 1992).

In addition, Wasson (1992) stated temporary employment agencies also emphasize it is difficult to place accounting graduates in positions unless they also have reasonable keyboarding and data-entry speeds. While the accounting educators in the group insisted that all business students should have extensive accounting theory in their backgrounds, the office educators preferred a modular approach, involving the completion of each module providing an additional marketable skill.

Teaching Spreadsheet Software

Spreadsheet software is the most widely used application in accounting. According to the Kansas Business Education Curriculum Handbook (1995), spreadsheet software should be included in the accounting curriculum at the high school level in order to better prepare students who might want to gain employment in the field of accounting after graduation.

Computers are giving accountants opportunities to increase their effectiveness. By using computers, accountants are capable of performing their jobs more quickly and efficiently. Computer technology affects our lives every day, according to Smith (1986), whether it be in our jobs, education or in our personal lives (i.e. billings, banking, and checkout at retail stores).

Because of the overwhelming interest in changing accounting education, many schools have led the way for new integrated accounting software to be utilized in the classroom. Textbook publishers have developed software to be used along with their textbooks that give the students exposure to computerized accounting. Typically, this is incorporated into the curriculum in the first accounting course offered at the high school level (Hanson, 1992).

Clearly, findings support the need for change both in content and methodology in accounting classes. Greater and earlier emphasis should be placed on the use of the computer. However, many schools delay the integration of computer applications until the higher level accounting courses (Graham, 1993).

The accounting course should teach computer skills by introducing students to computerized recordkeeping and the capabilities of automated data processing. The accounting course is designed so that hard work and consistent study pay off.

Accounting faculty have the opportunity to be innovative when creating computerized instruction. It is widely acknowledged by employers, accrediting bodies and professional societies that a knowledge of computer applications in accounting will be essential for the future accounting professional (Buttermilch, 1991). Integrating the computer throughout the curriculum has emerged as the most common method of instruction since it individualizes learning, increases the depth of content, and better prepares students for the technological environment they will enter (Buttermilch, 1991). A knowledge of computer applications in the accounting field will be essential for the future accounting professional.

Teachers who are preparing students for entry level accounting positions or college accounting courses must be sure students are familiar with microcomputer technology (Graham, 1993). In addition to knowledge of the accounting cycle, professors agree that computer skills are a prerequisite for all beginning accounting students.

Meeting Students Needs

Accounting methodologies need to be evaluated to determine if students' needs are being met. Are students adequately prepared to meet the challenges of an entry level accounting position for a small business? Are students adequately prepared to be successful in a college accounting course? Although many special interest groups have been involved in the debate about what students need, it has been determined by Albin and Crockett (1991) that the following skills are necessary for success in accounting: (1) oral and written communication skills, (2) analytic skills, (3) computer skills and (4) interpersonal skills. These skills can be properly developed only with an accounting context, which means they must be integrated into accounting courses.

Summary

Business educators must provide our students with hands-on computerized accounting experiences (Segui, 1991). Encouraged by the demands of employers, accrediting agencies, and professional societies for more computer literate accounting professionals, many schools have integrated computers throughout the accounting curriculum (Buttermilch, 1991).

According to Scriven (1991), the growth of the information processing age and its resulting impact on all areas of business has given teachers the impetus to explore new methods for teaching basic skills, software applications, and business procedures. The increasingly sophisticated and complex technology that becomes available daily, as well as the use of this technology throughout society, make it incumbent upon the business teacher to develop methods of instruction that are as effective, efficient, and relevant as possible.

Graham (1993) stated that beginning accounting employees and college students need to be technically literate and strong communicators, as well as problem solvers. Graham also reported that by teaching the traditional accounting content and by utilizing complete-cycle and problem-solving strategies in teaching accounting, instructors can help their students meet the higher standards that accounting practitioners and college professors expect in the 90's. We need efficient, effective curriculums that meet today's needs (Whitney, 1992).

CHAPTER 3
Presentation of Data

The purpose of this study was to determine if students who have had high school accounting are adequately prepared for college level accounting courses, and whether it is beneficial to students who enroll in college level accounting courses to have had computerized accounting instruction. To determine this, a questionnaire was filled out by 23 students enrolled in beginning accounting classes at a state supported urban midwestern university and by 25 students from Financial and Managerial accounting classes at a state supported regional university in Kansas. Results are based on responses from a total of 48 students.

Some questions on the questionnaire were left unanswered by some of the respondents. These are indicated by "no response" on the following tables.

In response to Question 1 which asked if computers were used as a part of the instruction in the high school accounting class, 27 students, or 56%, answered that computers were used in the classroom. Of the students who had used computers in the classroom, 88% received instruction with computerized accounting programs designed to coordinate with the textbook, followed by 74% who received instruction using computer simulations/practice sets and spreadsheets. Peachtree Accounting software was used by 48% of the students. Spreadsheet software was used by 52% of the students and 6% of the students had instruction in Quicken accounting software. There were no responses related to the use of database software as shown in Table 1.

Table 2 presents the responses to the question that dealt with the technique used to teach accounting that had been used in the students' high school classes. Of the 48 respondents to the questionnaire, 22, or 46%,

Table 1

Computer Applications Used in High School Accounting Courses

<u>Applications</u>	<u>Urban University</u> N = 12	<u>Percentage</u>	<u>Midwest Regional University.</u> N = 15	<u>Percentage</u>	<u>Total</u> <u>Percentage</u>
Computer programs designed to coordinate with the textbook	12	100%	12	80%	88%
Computer Simulations/ Practice Sets	12	100%	8	53%	74%
Spreadsheet Software	12	100%	2	13%	52%
Database Software	0	0%	0	0%	0%
Peachtree Accounting Software	11	91%	2	13%	48%
Quicken Software	0	0%	1	6%	3%
Other	0	0%	0	0%	0%

Table 2

Techniques Used to Teach High School Accounting Classes

<u>Applications</u>	<u>Urban University</u> N = 23	<u>Percentage</u>	<u>Midwest Regional University</u> N = 25	<u>Percentage</u>
Manual Accounting Only	11	48%	11	44%
Manual Accounting and Integrated Accounting Software	12	52%	8	32%
Commercial Accounting Packages	0	0%	2	8%
Manual Accounting with Spreadsheet Software	3	13%	3	12%
All of the Above		No Response		
Other		No Response		

indicated their high school accounting classes were instructed utilizing manual accounting instruction only. The second most frequently used technique was the combination of manual accounting and integrated computerized accounting software by 20 students, or 46%, followed by commercial accounting packages such as Peachtree or Quicken used by 4%. There were 6 students, or 12%, indicating they used manual accounting/spreadsheet software instruction. As shown in Table 2, the statistics are segregated by the two universities and a combined percentage is indicated in the last columns.

Respondents were asked to rate, using a 4 point scale, how well their high school accounting instruction prepared them for college-level accounting courses. For ease in presenting the data, each category was assigned a numeric value (very well prepared = 1, somewhat prepared = 2, slightly prepared = 3, not prepared = 4) as shown in Tables 3-5.

Forty-six percent of the total respondents received manual accounting instruction only. Of the 22 students responding, or 42% indicated they were somewhat prepared in the area of knowledge about the complete accounting cycle for their college accounting courses, 50% were slightly prepared and 8% were not adequately prepared for college accounting courses. See Table 3.

Of the 20 students responding that they received both manual accounting and integrated computerized accounting software instruction, 25% reported they were very well prepared. Twenty-five percent were somewhat prepared, 25% were slightly prepared and 25% felt they were not prepared for college accounting classes in the area of knowledge about the complete accounting cycle.

Table 3

Preparation for the Accounting Cycle

Type of Instruction	N =	Skill Levels			
		Very Well Prepared	Somewhat Prepared	Slightly Prepared	Not Prepared
Manual Accounting Only	22	0 (0%)	9 (42%)	11 (50%)	2 (8%)
Manual Accounting/Integrated Computerized Instruction	20	5 (25%)	5 (25%)	5 (25%)	5 (25%)
Manual Accounting/Spreadsheet	6	0 (0%)	3 (50%)	3 (50%)	0 (0%)
Manual Accounting/Commercial (Peachtree/Quicken)	2	0 (0%)	2 (100%)	0 (0%)	0 (0%)

Notes: Percentages indicated in parentheses.

Of the 6 students who had spreadsheet software instruction, 50% answered they were somewhat prepared. Fifty percent were slightly prepared with knowledge about the complete accounting cycle for college accounting classes.

There were two students who had the opportunity to utilize commercial software packages such as Peachtree Accounting, or Quicken. All of them perceived they were somewhat prepared as far as understanding the complete accounting cycle.

Overall, the greatest number of students, 42%, had been given manual accounting instruction along with some integrated computerized accounting instruction at the high school level. Of those students, 50% reported they were very well or somewhat prepared to enter a college accounting class based on prior knowledge of the accounting cycle.

As shown in Table 4, of the 22 students responding who received manual accounting instruction only, 8% of them were very well prepared for college level computerized accounting instruction. Thirty-three percent were somewhat prepared, none indicated they were slightly prepared and 58% responded that they were not prepared.

Of the 20 students who responded they received manual accounting and integrated accounting software instruction, 12% indicated they were very well prepared for computerized accounting instruction at the college level. Sixty-two percent were somewhat prepared, 13% were slightly prepared and 13% were not prepared.

Six students, of all respondents, received spreadsheet software instruction at the high school level. Six percent were not prepared in the area of computerized accounting for college accounting classes.

Table 4

Preparation for Computerized Accounting

Type of Instruction	N =	Skill Levels			
		Very Well Prepared	Somewhat Prepared	Slightly Prepared	Not Prepared
Manual Accounting Only	22	2 (8%)	7 (33%)	0 (0%)	13 (58%)
Manual Accounting/Integrated Computerized Instruction	20	2 (12%)	12 (62%)	3 (13%)	3 (13%)
Manual Accounting/Spreadsheet	6	0 (0%)	0 (0%)	0 (0%)	1 (6%)
Manual Accounting/Commercial Software (Peachtree/Quicken)	2	0 (0%)	0 (0%)	0 (0%)	0 (0%)

Notes: Percentages indicated in parentheses.

Students who had the opportunity to utilize commercial software packages such as Peachtree, or Quicken did not respond to the question asking if they were prepared for college classes in the area of computerized accounting knowledge.

Overall, the greatest number of students had been given manual instruction along with integrated software instruction at the high school level. The majority of students who had experienced manual accounting only at the high school level did not believe they were prepared for college level computerized accounting as reported in Table 4.

Table 5 shows that of the 22 students responding who had received manual accounting only at the high school level, 16% felt they were very well prepared, 41% responded they were somewhat prepared and 41% felt they were slightly prepared for manual accounting theory at the college level.

Twenty respondents had received manual accounting and integrated accounting software instruction at the high school level. Twenty-five percent were in each category of preparedness for manual accounting theory in college accounting classes.

Six students had spreadsheet software instruction at the high school level. All of them, or 100%, indicated they were slightly prepared in the area of manual accounting theory at the college level.

More students who had received manual accounting along with integrated computerized instruction at the high school level believed they were very well prepared for manual accounting theory at the college level. Students who received other types of accounting instruction at the high school level believed they were less prepared for manual accounting theory at the college level.

Table 5

Preparation for Manual Accounting Theory

Type of Instruction	N =	Skill Levels			
		Very Well Prepared	Somewhat Prepared	Slightly Prepared	Not Prepared
Manual Accounting Only	22	4 (16%)	9 (41%)	9 (41%)	0 (0%)
Manual Accounting/Integrated Computerized Instruction	20	5 (25%)	5 (25%)	5 (25%)	5 (25%)
Manual Accounting/Spreadsheet	6	0 (0%)	0 (0%)	6 (100%)	0 (0%)
Manual Accounting/Commercial (Peachtree/Quicken)	2	0 (0%)	0 (0%)	0 (0%)	0 (0%)

Notes: Percentage indicated in parentheses.

Of all students surveyed, 34 students, or 70%, responded they believed their high school accounting coursework provided them with an advantage in their college accounting courses. While only 14, or 30%, felt they did not have any advantage based on their high school instruction.

CHAPTER 4

Summary, Conclusions and Recommendations

The purpose of this study was to determine whether students who received traditional accounting instruction in high school were better prepared for college level basic accounting courses than students who received integrated computerized accounting in high school accounting classes.

The specific questions included on the questionnaire were as follows:

1. How many students used computers in their high school accounting classes?
2. If computers were used in their high school accounting classes, what types of applications were used?
3. What type of teaching methods were used in their high school accounting classes?
4. Did the high school accounting courses prepare students with adequate knowledge about the accounting cycle?
5. Did the high school accounting courses prepare students with adequate information regarding computerized accounting?
6. Did the high school accounting courses prepare students with adequate manual accounting theory?
7. Overall, did high school accounting courses provide students with any advantage in college level accounting courses?

Summary

A questionnaire was filled out by students enrolled in Financial and Managerial Accounting classes at a state supported regional university in the midwest and mailed to volunteer students in Accounting I and Accounting II courses at a state supported urban midwestern university.

Conclusions

From an analysis of the data collected in this study, the following conclusions are drawn:

1. The majority of students receiving manual accounting principles instruction only at the high school level felt they were somewhat prepared to take college level accounting classes.
2. Students receiving manual accounting principles along with integrated computerized accounting instruction at the high school level felt they were very well prepared to take college level accounting classes.
3. Students who received instruction in varying accounting software packages (i.e., Peachtree, or Quicken) felt they had no advantage when taking college level accounting classes.
4. Overall, the study shows that students who received manual accounting instruction along with integrated computerized instruction perceived they were better prepared for college level accounting courses.

Recommendations

Based on the information gathered from the survey, the following recommendations are being made:

1. Business educators should utilize a combination of manual and integrated computerized accounting instruction at the high school level.
2. Business education teachers should continue to emphasize manual accounting principles in order to prepare students well for manual accounting theory at the college level.
3. Computerized accounting instruction using commercial software or spreadsheet software at the high school level does not need to be taught in order for students to be prepared for beginning accounting courses at the college level.
4. A future study should be conducted to determine the trends in accounting theory methodologies and in the applications of computerized accounting instruction.

REFERENCES

- Albin, M. J., & Crockett, J. R. (1991). Integrating necessary skills and concepts into the accounting curriculum. Journal of Education for Business, 66(6), 325-327.
- Buttermilch, R., (1991). Using computers in accounting. Business Education Forum, 45, 39-40.
- Davis, J. R. , (1994). Assessment of accounting education, Part 1 -- Evaluating the process. Management Accounting, 66, 69.
- Getter, G., & Gilbertson, C. (1992). A curriculum in transition: Accounting in the 1990's and beyond. The Balance Sheet, 73-94, 5-8.
- Graham, J. (1993). How to refocus accounting content and methodology. Business Education Forum, 48, 30-33.
- Guerrieri, D. J., Haber, F. B., Hoyt, W. B., & Turner, R. E. (1993). Glencoe Accounting (2nd ed.). New York: McGraw-Hill.
- Hanson, R. D. (1992). Computerized tutorials aid mastery of transaction analysis. The Balance Sheet, 73, 9-11.
- Hellmuth, S. (1991) What high school accounting can do for your students. Business Education Forum, 45, 12-16
- Pecha, D. (1990). Bringing small business accounting into the classroom. Business Education Forum, 45, 15-16.
- Scriven, J. P. (1991). Needed research in business education. Business Education Forum, 45, 3-7.
- Sequi, E. K. (1991). Converting the manual simulation to a computerized system. Business Education Forum, 45, 19-20.

Smith, L. M. (1986). High school accounting teachers need electronic data processing instruction. NABTE Review 19, 27-30.

Tatikonda, L. M. (1993). JIT can save accounting education. Management Accounting 72, 53-55.

Thomas J., & Thomas P. (1994). Cases applications in accounting. Business Education Forum, 49, 39-40.

Wasson, R. A. (1992). A case for integrated microcomputer accounting instruction. Business Education Forum 47(2), 33-34.

Appendix

June 10, 1996

Dear Accounting Student

I am a graduate student at Emporia State University currently working on the research for my Master's Thesis. You are invited to participate in a study of accounting students at the college level. Participation in this study is entirely voluntary. The survey will take only five minutes or less to fill out.

I hope to learn whether or not you feel you had any advantage by having a high school accounting class and further if you were instructed through manual accounting principles or with computerized programs.

If you decide to participate, I would ask that you provide your address so that I may send you the questionnaire. Your help in this study will be greatly appreciated and I would be willing to provide you with the results if you so desire. Your identity will remain confidential and will be disclosed only with your permission.

You are making a decision whether or not to participate. Your signature indicates that you have read the information provided above and have voluntarily decided to participate.

Signature _____ Date _____

Name _____
Address _____

Telephone _____

June13, 1996

Dear Accounting Student

Accounting courses and curriculum have been changing dramatically in recent years. The use of computers and integrated accounting software have changed the teaching style at the secondary level. The questionnaire is designed to determine if students are better prepared for college accounting courses based on manual accounting principles instruction over computerized accounting instruction.

The attached survey will determine how much and what type of accounting instruction you received at the high school level. Please take a few minutes to answer the questions on the survey and return the survey to your instructor at the end of the class.

Sincerely,

Pat Snyder
Business Instructor

Attachment

Accounting Instruction Survey

INSTRUCTIONS: Please answer the following questions by placing a check mark next to the appropriate answer.

1. In your high school accounting class, were computers used as part of the instruction.

_____ Yes _____ No

2. If computers were used in your high school accounting class, which of the following applications were used?

Please check all that apply:

- _____ Computer programs designed to coordinate with the textbook
 _____ Computer Simulations/Practice Set
 _____ Spreadsheet Software
 _____ Database Software
 _____ Peachtree Accounting Software
 _____ Quicken Software
 _____ Other _____

3. Which one of the following methods best describes the technique used to teach your high school accounting class. (Choose only one.)

- _____ Manual Accounting Only
 _____ Manual Accounting and Integrated Accounting Software (i.e. software that was designed to go along with the textbook)
 _____ Manual Accounting with Spreadsheet Software (i.e. Lotus 1-2-3, Excel)
 _____ Commercial Accounting Packages (Peachtree, Quicken, etc.)
 _____ All of the above
 _____ Other (please describe) _____

Please rate your high school accounting course by circling the most appropriate answer.

On a scale of 1 to 4, defined as follows:

- 1 - very well prepared
- 2 - somewhat prepared
- 3 - slightly prepared
- 4 - not prepared

4. Do you believe your high school accounting course prepared you with adequate knowledge about the accounting cycle?

1 2 3 4

5. Do you believe your high school accounting course prepared you with adequate information regarding computerized accounting?

1 2 3 4

6. Do you believe your high school accounting course prepared you with adequate manual accounting theory?

1 2 3 4

7. Overall, do you believe your high school accounting course provided you with any advantage in your accounting course at the college level?

_____ Yes _____ No

Please return the survey to me in the enclosed stamped and addressed envelope by June 15, 1996

FOLLOW-UP LETTER

June 20, 1996

Dear Accounting Student

I realize that this is a very busy time of year and that the survey for your recent accounting class may have been forgotten. It is not too late to take a few minutes to answer the questions on the survey. I have enclosed an additional form and envelope for your convenience.

Thank you for your cooperation.

Sincerely,

Pat Snyder
Business Instructor

I, Pat Snyder, hereby submit this thesis/report to Emporia State University as partial fulfillment of the requirements for an advanced degree. I agree that the Library of the University may make it available for use in accordance with its regulations governing materials of this type. I further agree that quoting, photocopying, or other reproduction of this document is allowed for private study, scholarship (including teaching) and research purposes of a nonprofit nature. No copying which involves potential financial gain will be allowed without written permission of the author.

Pat J. Thomas Snyder
Signature of Author

August 1, 1996 Date
Received Value of Manual and
Computerized Accounting Instruction
Title of Thesis/Research Project

Randy Cooper
Signature of Graduate Office Staff Member

August 1, 1996
Date Received