ABSTRACT
        A critical review of computer software for
computer-assisted instruction (CAI) in Latin presents information
regarding user-friendliness, instructiveness, special effects, costs,
and availability. Survey responses of first- and second-year Latin
students (N=65) at a high school provided data for the comparison of
programs. Programs reviewed included: "Latin Skills," "Vocabulary on
the Attack, On Target," "Quo Modo Dicis? Latin Idiom Master, Latin
Computerized Grammar I," "S.C.I.O.," "Latin Flash Drill,"
"Introduction to Latin Vocabulary I/II," "Latin.Vrb.," "Latin
Exercises," "Latin Hangman," "DISCO," "Latin Tutor," "Computatus,"
and "Latin Verb Forms, Certamen Practice." A catalog listing the
hardware-software compatibility, cost, and availability of the
programs is included. (CB)

SURVEY OF LATIN INSTRUCTIONAL SOFTWARE

FOR THE MICROCOMPUTER

Copyright 1985,1987

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2

I. LATIN SOFTWARE EVALUATION: WHAT TO LOOK FOR

Which of the following statements is true? A) Computers will take over all forms of instruction by the year 2000. B) The computer craze in education is no more than media hype for a short-lived fad.

Wherever a teacher stands along the broad spectrum of opinion between these two extremes, he or she is inevitably aware of the growing presence of computers in the school. Parents are increasingly concerned that their children be prepared for a world which is making a strong commitment to the use of computers in virtually every area of activity. This trend affects not only job prospects but also the everyday interaction of "the Forum." Even more important to the academic is the computer's ability to provide access to and manipulation of great quantities of information for research and instructional purposes.

This book is not meant, however, to persuade anyone of the advantages or disadvantages of computer usage in the classroom. It is intended merely as a survey of those programs which are currently available to the Latin teacher who does decide--either voluntarily or at the behest of a principal--to make use of the microcomputers recently acquired by the school.

It seems an appropriate time to attempt such a survey. Gerald Culley recently summarized the development of Latin CAI (computer-aided instruction), which now has a fifteen-year history (Classical Outlook, 62/2, 1984). But it is only in the last year or two that the process of development has shown some concrete results within the grasp of microcomputers, and these are the "little" machines which are becoming so pervasive and accessible in elementary and high schools, as well as colleges, and even in homes. These are the types of computers from which far greater numbers of students will be gaining their computer experience.

Since the introduction of Latin-CAI microcomputer programs is such a recent occurrence, little has been written yet about the actual content of those programs which are just now being catalogued and distributed by various sources. In the article previously cited, Culley explains how the Delaware Latin Skills Project was able to transfer programs first developed on their PLATO system to the more widely used Apple microcomputer. At the same time, several other authors have been preparing their materials completely on a microcomputer of one brand or another.

This leads us into one of the main dilemmas faced by any "software" (computer program) author. On the one hand, there is the unique opportunity to become your own publisher, since the production of program copies is one of the simplest operations within the microcomputer's capacity. But, on the other hand, the usability of any program still depends on the type of machine on which it was written, and significant changes must be made to adapt (or translate) a program to other makes--and sometimes even models--of machines. BASIC may be basic, but many manufacturers have, so far, been able to make enough of their own "enhancements" of BASIC to create distinct, inexchangeable dialects. Perhaps, one of the best things that can be said for the advent of the "big guys," IBM and AT&T, onto the microcomputer scene is their heavy-handed influence on the standardization process of programming languages for intercommunication purposes.

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This, then, is the first question to be asked by a teacher about any program being considered for use: Will it "run" on the types of machines available to my students? This specification should always be noted in any catalog listing.

There are certain adaptive devices that can be attached to some microcomputers to let them interpret and use programs written for another machine make. At this point in time, however, one should approach this option with caution. Some of the devices have proven imperfect; therefore, it's a good idea to test out each program to be used with the device unless the author guarantees its compatibility. Also keep in mind that it is usually necessary to attach such a device to each machine to be used with that program, and this may add up to a sizeable additional cost.

Today the specifications of machine compatibility may substantially limit the list of program choices for any one school. Hopefully this will soon change for the better. But after this first criterion has been passed, the analysis can become more refined. Is this program applicable to this course? Will it offer substantial assistance in the teaching process? Does the program itself teach the student how to use it or must the teacher be "computer literate" and use extra time to read the manual and prepare students for its use?

Some Latin-CAI programs are textbook-specific, written either to accompany one particular text or in several versions to accompany more than one text. This will certainly be the first thing to consider in determining a program's application to a particular course since the graduated introduction of vocabulary, morphology and grammar varies significantly from text to text. Other programs might use drill patterns in conjunction with a vocabulary base of words common to most texts or able to be selected by the teacher from a word-library. Still others may cover a supplementary, general topic, like mythology or word study.

Once the range of a program's content is analyzed for its application to a course, the "character" of the program can be considered. This may include a number of characteristics: "user-friendliness" (or "personality"), general appearance (use of graphics and sound) and, most importantly, instructiveness. These are the factors which will determine whether the program is both effective and enjoyable to use for both teacher and student.

"User-friendliness" is the term used to describe a computer or program's ease of use for the person using it. It can cover everything from the layout of the keyboard to the response to a wrong answer (i.e. "Wrong, dummy!" vs. "Try again, please."). A very friendly program will not depend on any "computer literacy" except the knowledge of how to put the disk into and turn on the computer. It will lead the user "by the hand," step by step, offering optional explanations wherever necessary.

The use of graphics and sound can add to the "user-friendliness" of a program by making it attractive and thereby encouraging prolonged or repeated use. The "special effects" of the movie house and video games are raising students' visual expectations, and some programs try to meet those expectations by investing a large amount of effort in "fireworks" to keep the student's interest. The test of time is always the best censor to determine whether a program imparts a balanced ration of both "bread" (in this case, education) and "circus." What seems "cute" or "amazing!" the first time around can easily become boring and silly in overly repeated presentations. Ideally, a demonstration or trial period would allow for such a critique, just as examination copies of textbooks are meant

2

4

to provide. Some publishers will offer a demonstration disk at a reasonable charge for just such a purpose.

The instructiveness of the program is, of course, the primary concern of any teacher but may also be one of the hardest things to judge. Much of early educational programming seemed fairly rigid and uninteresting. Many of the shortcomings could be blamed on the limitations of the machine or the programming language, but developments in technology are rapidly eliminating those excuses. Certain minimal expectations may now be presumed, and programs which don't fulfill them can be avoided.

Most of the programs now in circulation are still of the "drill-and-practice" type. Vocabulary and morphology drills in Latin are particularly well-suited to simple computer programming, and many Latin teachers are more than happy to give the "drill sergeant" role over to the computer. Therefore, these programs, if they are well-designed, can surely serve a purpose. The embellishments to such a program may include: 1) scoring a student's drill, 2) giving the teacher the power to change the list of drill items, 3) randomizing the order of the item list for more variety and challenge, 4) allowing more than one correct answer, 5) summarizing types of errors for suggested review, 6) offering reference material to assist in discovering answers, 7) identifying partially correct answers and isolating the incorrect portion. This last characteristic can be particularly helpful in segmented answers, like the stem and ending portions of a morphological drill.

For the most part, educational programming has been restricted to the lower levels of language instruction because of the current limitations on the computer's ability to deal competently with the semantics of human language. The task of human language translation by the computer falls into the realm of "artificial intelligence" and is something which computer researchers are actively pursuing. When that egg is cracked, a whole wave of possibilities will open up for the development of more sophisticated programming for advanced levels of language instruction.

One more factor to be considered is the controversial issue of copyright. This issue has created a torrent of debate in the computer user and publishing communities. The unprecedented ease with which whole programs and veritable libraries of information may be copied with the push of a few buttons has made the temptation of copyright infringement that much harder to suppress. The continuous attempts by publishers to "copy-protect" their copyrights electronically have been thwarted by equally powerful "locksmith"-type programs. The users who develop the lock-breaking programs argue that publishers' prices are unreasonably high; publishers retort that their prices are inflated by the vulnerability of their copyrights. Thus, the vicious circle begins; but where does it end?

The fact remains that all published materials with a copyright notice attached to them are protected by Federal law, and any copying of that material without the copyright-owner's permission is illegal and may be prosecuted in court. Another fact is that, if program authors do not receive adequate compensation for their efforts, the quality of software, both educational and otherwise, is bound to suffer.

One alternative method of distribution which is being discussed widely and being tried cautiously is "site licensing." For a price which is usually equivalent to about three or four times that of a copy-protected version, a publisher will sell an unprotected version with a license which allows unlimited copying of the program for on-site use. The advantages of such an arrangement are particularly attractive to schools and offices.

3

5

This will, in effect, make the programs which were sold previously as protected versions at $30-50 affordable for concurrent use in full-sized classroom computer labs.

With all of the above considerations in mind, one can begin to take a look at the range of programs currently available in the field. The next section will describe a student software survey which was conducted by the author to get criticism from some of the intended users of Latin microcomputer software, and the final section includes critical reviews of all the instructional software which could be found by the author to be generally available for purchase as of August 15, 1985. ("Authoring systems" are not included; a catalog listing of the reviewed software is presented in Appendix A.)

II. THE EDGEWOOD LATIN STUDENT SOFTWARE SURVEY

A student-response survey of Latin-CAI microcomputer software was conducted by the author at Edgewood High School in Madison, Wisconsin, during the spring of 1985. The survey was performed in cooperation with the school's Latin teacher, Belle Goebel, and with the invaluable assistance of Joanne Tiedemann, German teacher and Latin Computer Lab supervisor.

The Latin classes at Edgewood seemed particularly suitable for such a survey as they had already accumulated two full years of experience with a fully integrated Latin-CAI program. Through successful, local-grant funding, Ms. Goebel was able to equip a Latin Computer Lab and write her own programming to make use of it, so that her classes now spend half of their classtime working on computer exercises.

Sixty-five first and second-year Latin students participated in the survey from March 22nd to May 16th, and a total of 189 completed survey forms were received during that time. The number of responses per program varies due to the number of copies of each program available and the compatibility of the programs with the students' regular text (Cambridge Latin Course).

The survey was intended to include all microcomputer software currently available in Latin. Not all of the titles listed in the catalog (Appendix A) were then available or known by the author to be available--hence, the shorter list of titles on the statistical charts.

4

All ratings were done on a five-point scale, with five points being the highest recommendation. Averages for each of the three sections are computed on the right end of each chart, with a total average and number of responses on the third chart. All of these ratings and the accompanying comments were taken into consideration for the author's own critical reviews, which follow the charts in the final section of this book. A copy of the survey form used is included in Appendix B.

The three extra questions in section D, which required a "yes/no/indifferent" response, were added for the sake of future software development. They target three major components of many programs: 1) calling the student by name, 2) using a "verb scan" to compare incorrect answers with other possible verb forms, 3) offering grammar explanations for reference/review. The largest vote of support (3:1) came through for grammar explanations; significantly less of a majority (4:3) liked the use of "verb scans"; a similar majority (7:4) were indifferent to being called by name.

Although the critical reviews go into much more detail in describing the disks along with their strengths and weaknesses, a few general observations may be made about the survey and the resulting statistics.

The high ratings noted by the asterisks are clustered into a few significant groups. Culley's "Translat" program received very high marks for both instructiveness and "user--friendliness," while Turner's Computatus was praised extensively for its attractive use of color graphics and sound. Also given strong recommendations by the students were Culley's "Verb Factory" and "Mare Nostrum," which managed to hold some consistently high scores in almost all categories.

Perhaps because of their background with the Cambridge Latin Course, these students were not very receptive to programs which used a parsing or reverse-parsing format.

It should also be pointed out that, since there is no version of the Delaware Latin Skills (Culley) set of programs for the Cambridge Latin Course, the Wheelock version was used for this survey. This does not seem to have affected the students' criticism, even though it did discourage broader use of those programs. The Tessera verb exercises were specifically adapted by the author to the vocabulary levels of the classes. Computatus is a vocabulary drill correlated directly to the Cambridge course, and Latin Tutor is not textbook-specific.

5

FIGURE A: STATISTICAL SUMMARY OF STUDENT SOFTWARE SURVEY

Statistical columns are correlated by letter and number to the items on the student survey form in Appendix B. The items have also been abbreviated above each chart for easy reference. Asterisks (*) mark the highest recommendation in each catagory.

Abbreviated Program Titles:

CP = Computatus (Turner)
TS = Tessera Verb Forms (Weber)
LT = Latin Tutor (Scandura)
DV = Del. "Verb Factory" (Culley)
DM = "   "Mare Nostrum"   "
DC = "   "Cursus Honorum"   "
DA = "   "Artifex Verborum"   "
DT = "   "Translat"   "

A. "USER-FRIENDLINESS": Instructions and Ease of Use

1. General
2. Instructions
3. Easy movement
4. Special keys explained
5. Easy return to menu
6. Easy exit

	A-1	A-2	A-3	A-4	A-5	A-6	A-AVG
CP	4.02*	3.80	2.83	2.93	2.35	2.87	3.13
TS	2.85	3.02	2.33	2.74	2.70	2.90	2.76
LT	3.13	3.45	2.14	3.17	2.17	2.08	2.69
DV	3.64	4.05	4.23	4.05	3.64	3.36	3.83
DM	4.00	4.38*	4.00	4.20	3.53	3.87*	4.00*
DC	3.38	3.46	3.69	3.23	3.23	2.92	3.32
DA	3.50	3.17	2.67	3.33	2.83	2.67	3.03
DT	3.67	4.17	4.50*	4.50*	3.83*	3.17	3.97

B. INSTRUCTIVENESS: Answer Correction and Explanations

1. General
2. Accepts answers flexibly
3. Critiques wrong answers
4. Help available
5. Answer with explanation
6. Summary of results

	B-1	B-2	B-3	B-4	B-5	B-6	B-AVG
CP	3.77	2.67	2.60	2.63	3.31	2.81	2.97
TS	3.17	2.59	3.30	3.63	3.69	2.81	3.20
LT	3.54	2.88	3.09	3.17	3.00	2.58	3.04
DV	3.77	2.68	3.55	3.82	3.76	3.43	3.50
DM	4.00	3.27	3.67	3.47	3.67	2.79	3.48
DC	3.55	2.82	2.91	3.36	2.82	2.82	3.05
DA	3.33	2.67	3.50	3.33	2.83	2.17	2.97
DT	4.17*	3.83*	4.00*	4.50*	4.17*	3.50*	4.03*

C. "SPECIAL EFFECTS": Graphics, Sound and Speed

1. General
2. Graphics
3. Sound
4. Fast and smooth running

	C-1	C-2	C-3	C-4	C-AVG	AVG	RESP
CP	4.65*	4.80*	4.44*	3.69	4.40*	3.39	55
TS	2.08	1.81	1.83	2.65	2.09	2.78	48
LT	3.17	2.17	3.29	3.09	2.93	2.88	24
DV	3.23	3.09	2.32	3.73	3.09	3.52	22
DM	3.87	4.07	3.00	3.67	3.65	3.71	15
DC	3.62	2.77	2.23	3.00	2.90	3.11	13
DA	2.83	2.33	2.17	2.83	2.54	2.89	6
DT	3.00	3.00	2.50	4.00*	3.13	3.78*	6

9 7

III. CRITICAL REVIEWS OF MICROCOMPUTER SOFTWARE FOR LATIN-CAI

Culley, Gerald R. et al. Latin Skills. Newark, DE: University of Delaware, 1984. Apple II+/e, Franklin; 48K; 5 program disks: "Verb Factory," "Mare Nostrum," "Cursus Honorum," "Translat," "Artifex Verborum"; $89 each disk, $20 light pen (optional), $395 complete set (5) with pen (sliding quantity/price scale), demo: $15; different versions compatible with Wheelock, Jenney, Ullmann, Goldman or Longman texts.

Latin Skills is a comprehensive package of programs designed to accompany any of five major Latin textbooks. Each of the five disks has its own title and area of concentration.

"Verb Factory" deals with verb morphology in the same sequence as its partner textbook, demonstrating stem and ending combinations with an animated factory which produces forms "piece by piece" (stem, tense/mood sign, personal ending) and quizzing the student on those forms in an English to Latin translation format. A great amount of assistance is given after wrong answers. First, the answer is always judged morpheme by morpheme, and the first mismatch found is noted. After two wrong answers on the same item, more help is offered in the way of parsing questions, and the factory demonstrates verb formation visually as questions are answered correctly. A complete quiz includes twenty randomly chosen items, but exit is possible after any item is correctly completed (with or without help). At the end of the exercise, a chart display summarizes mistakes by tense, mood, voice, person and number so that areas for review may be noted.

"Cursus Honorum" is designed to complement "Verb Factory," as it also deals with verb morphology but offers more flexibility by allowing the student to choose all the areas to be drilled (perhaps those areas noted as weak during his/her use of "Verb Factory"). Quizzing is done this time in a parsing format or its reverse, again at the student's discretion. More of a competitive appeal is added in by means of a game-style format which includes both a time clock, whose limit is set by the student, and the progressive awarding of offices (by point levels) on the Roman ladder of success, the cursus honorum.

"Mare Nostrum" is very similar to "Cursus Honorum" in its flexibility for student--chosen parameters (declension and vocabulary levels). This program applies the game-style format to noun-adjective declension and agreement. The scoring goal becomes the conquest of the Mediterranean (mare nostrum), province by province. A color map is used to show the student's progress on the imperialist campaign. The quiz format is again determined by the student: either the parsing of a given noun-adjective pair or the creation of forms specified by case, number and gender. One other characteristic of both "Mare Nostrum" and "Cursus Honorum" which deserves special note is their ability to do "invisible review." Morphological items missed earlier in the same exercise are presented again under the guise of different words, using new stems.

"Translat" makes a remarkable attempt to tackle the complexities of how a computer reads English sentences. Using a new, adapted form of BASIC, called EnBASIC, this program is able to read English translation of Latin sentences with a certain amount of flexibility and offer critical responses to guide the student's own correction of his/her

mistakes. Even before any translation is attempted, much help is available for the asking in the way of dictionary listings and grammatical specifications for any word in the Latin sentence.

Despite such notable flexibility, "Translat" is limited to relatively simple sentences. When its dependability begins to fade, a companion program, "Artifex Verborum," takes over with a substitute exercise: parsing in the context of a Latin sentence. When every word in a sentence has been parsed correctly, a proper English translation is displayed as a reward.

It is important to note that, in any of the parsing formats, the programs will actually create the form specified by the student's response, whether it is correct or not. If the created form matches the correct form, the quiz proceeds to the next item. If it does not match, it is displayed so the student can see the form he/she has specified and, perhaps, learn from his mistakes.

The entire Latin Skills package is produced in five versions, as noted above, so that all exercises can be coordinated by chapter with the appropriate vocabulary and grammar levels. The documentation is very thorough and offers student instruction handouts for copying. The use of the light pen with the programs is optional, but it can be an attractive option to those who are not proficient typists or those who enjoy a change from keyboard input. Although the price is comparable to popular business-oriented programs and may be prohibitive to many schools (especially those below the college level), the potential assistance that this set of programs can offer in a Latin-CAI classroom is exceptional.

Hall, John. Vocabulary on the Attack, On Target. Maspeth, NY: Langensheidt, 1984. Apple II/+/e/c; 48K; copy-protected; $39.95 (backup: $10).

Langensheidt's two programs have been adapted for many foreign languages, including Latin; they bear striking resemblances to each other, and also to the nationally popular Word Attack program for English vocabulary. They are both strictly devoted to the drilling of vocabulary but are not set up for any particular textbook. Rather, they provide an available reservoir of 750 words commonly used in elementary Latin courses, which can be added to and edited into modules by the teacher to accompany the text in use; or the entire list can be used to build up students' general vocabulary and etymological skills.

The programs are both designed on a competitive, game-style basis with effective use of motion graphics (shooting arrows and moving words). Selections for the drill include: 1) which list to be drilled (The master list is separated into 8 sections on the original disk.); 2) all or part of a list; 3) word or definition given; 4) 20-word drill or the "high score" version (play until you surpass your highest score on record for this session; no permanent records are kept); 5) random selection from the specified list OR the offering of a second try (These don't seem like they should be mutually exclusive options.); 6) speed of play (four levels).

There are a few minor differences between the two programs. In Vocabulary on the

9

Attack, the word moves across the screen (left to right) "on the attack" towards the student's highlighted name at the right edge of the screen. Four possible definitions are offered at the bottom of the screen (or word and definition are switched if so chosen). The choosing of an answer, by number, causes an arrow to be shot from the name towards the attacking word. Only one "shot" is allowed per try. In the other program, On Target, the word (or definition) resides at the bottom of the screen. As four possible definitions (or words) move across the top of the screen in "shooting gallery" fashion, they are to be shot at (two shots per try, until correct) by a "gun" which can be moved back and forth across the bottom of the screen.

A running score is kept at the top of the screen, along with the question number. Instructions on the screen could be slightly clearer ('Caps Lock' key must be down.), but the user manual is very thorough and easy to read. The one thing that could be more convenient is an easy exit from the program (or, at least, the drill) at any time. Though these programs are somewhat redundant as a pair, each on its own is an attractive, consistent, and adaptable piece of educational software. Of the two, On Target seems to be the most appealing to many students because of its fast-paced, kinetic activity on-screen.

Jacobsen, Garrett and Mary Ann, et al. Quo Modo Dicis?, Latin Idiom Master, Latin Computerized Grammar I. Westerville, OH: Lingo Fun, 1984, 1984, 1985. Apple II/e/c; 48K; $49.95 each (copy-protected), site license: $150.00 each, demo: $5.

Lingo Fun has been able to develop the framework of several programs which they could then adapt to various foreign languages (in much the same way George Earl did with the Hangman series, which Lingo Fun also distributes). Quo Modo Dicis? ("How do you say?"), the first program of the set, has remarkable similarities to Latin Hangman: it uses only sentences for its quizzing and contains 30 sets of ten sentences each. The material is not correlated to any particular textbook but does follow a pattern of increasing difficulty. Each sentence set concentrates on a specific point of grammar, and the entire disk's coverage extends into the subjunctive and most basic types of clauses. Quizzing may be done from Latin to English or English to Latin. An editor module is also included which allows a teacher to add special sets of new sentences that might be better matched to coursework.

Instead of the traditional "Hangman" format, this program uses a modern American business metaphor. The student poses as a professional translator for an international communications company. A choice of job position (intern, apprentice, master translator) determines the level of difficulty and the rate of pay: the higher the pay (for correct answers), the higher the penalties (for incorrect answers) and the less help given. The "help" levels begin with the usual "Hangman" arrangement of blank spaces matching the necessary word lengths and all occurrences of a chosen letter filled in. The second level only fills in one occurrence of a chosen letter at a time (however, extra guesses of a letter that does exist in the answer, even if there are no more left to fill in, will not incur a penalty). The third level does not show the number of blank spaces to be filled in. A limit of six wrong letters ends the work on any one sentence.

10

The documentation lists all sentences preprogrammed on the disk and instructions to help clarify possible confusion for new users. One small inconsistency seems to be the need for the "Caps Lock" key to be down when answering "Yes/No" (Y/N) questions. It does not seem to matter anywhere else.

The graphic lettering within the drills is bold and double-sized, which makes it very easy to read. The teacher's edit module is very useful, and there are detailed instructions on how to enter new sentence sets and correct errors. However, only one correct translation is allowable per sentence.

Latin Idiom Master is divided into ten exercises of ten sentences each. Each exercise concentrates on a particular type of Latin idiom, e.g. expressions of time and place. Once an exercise is chosen, it is possible to either review all the items to be tested or go straight to the drill. A quit option is available at any time.

The drill uses full sentences with missing words and offers multiple choices of idiomatic expressions with which to fill in the blanks. Percentage scoring is based on correct/wrong answers, exceeding the time limit (30 seconds), skipping sentences, and using an optional review of the material during the drill. Any items skipped will be shown again after the rest are completed. There is a nominal use of sound (beeps for wrong answers) which may be easily turned on or off.

This program also includes a very thorough edit module with which to add or change exercise sets. It is possible to vary the length of the sets from two to twenty items. The documentation includes instructions for starting the program and using the edit module.

The third Latin disk from Lingo Fun is called Latin Computerized Grammar I (previously First Byte in Latin). It covers most of the grammatical forms for nouns, adjectives, pronouns and verbs, and also gets into the use of indirect statement. Since the program is not correlated to a particular text, it uses a vocabulary base of simple, commonly-used words. There are twenty lesson topics and each includes a short chapter of explanation (2-4 pages) which can be reviewed before the practice exercise. These explanations are brief and admittedly intended more as a review than as a self-teaching device, as previous knowledge of certain grammatical terminology is assumed.

The practice exercises are presented in sets of ten items each. There are five different sets for each topic, and the order of the items is randomized within a set each time a drill is run. Most answers only require one-word answers, but all answers are judged by the more sophisticated abilities of enBasic programming, which can point out specific errors of wrong/extra/missing letters. Besides the enBasic notation (explained in the Instructions), the program's responses during a drill are all in Latin, e.g. "Responde iterum!", "Sic!", "Ita!".

Three attempts are allowed before the correct answer is given, and scoring is done on an unspecified basis. Scores of 90% or better receive the reward of a special graphics presentation.

This program does not include an edit module, as the other two do.

11

Kershenbaum, Aaron and Peg. S.C.I.O.. New York, NY:Kershenbaum, 1984. IBM-PC and compatibles; 128K; site license: $500, demo: $10.

S.C.I.O. is a two-disk set which offers several different types of exercises using a vocabulary base of commonly-used words (not tied to any textbook). One disk is devoted to nouns and adjectives, the other to verbs. The program makes use of the extra sound and color effects available with Advanced BASIC (BASICA) and Color Monitors, but the graphics remain in simple text (typewriter) style.

The noun-adjective disk menu includes vocabulary and parsing drills (both English to Latin and Latin to English), as well as short one-page case and declension reviews. The verb disk menu includes drills on vocabulary, parsing, synopses and sentence translation, along with a brief review section on verbs. It is also possible to make your own drills on either disk.

When the program is asked to display forms in synopses and the like, it actually pieces together forms and endings and does so rather quickly. Several of the student exercises are of the parsing type. In these, the program will go ahead and generate the form specified by the student to show how it differs from the form in question. The exercises which deal with whole sentence translation also generate their own sub-ject-verb-object combinations, which can create a few nonsensical phrasings. ("Artificial intelligence" will take care of that problem someday, perhaps.)

Most exercises contain ten items; since each exercise is graded, no easy exit is allowed until the exercise is finished. In order to maintain the presence of macrons throughout the program, asterisks are placed immediately after the vowels which are "long." This tends to give words a fragmented look, but it does make a definite visual impact.

A strong advantage to this program is its flexibility in defining parameters for drilling: the student specifies his/her own category choices (e.g. declension, conjugation, mood) and can include more than one category at a time. Program responses to student answers may include a combination of a Latin exclamation, some corrective advice in English, AND an appropriate sound effect.

Latousek, Robert B. Jr. Latin Flash Drill. Madison, WI: Centaur Systems, 1985. Apple IIe (with 80-column card) or IIc, IBM-PC and compatibles; 64K; site-license: $95, demo: $10. Available from The American Classical League, Miami University, Oxford, OH 45056.

Latin Flash Drill is a drill-and-practice program specifically concentrating on the paradigm charts of Latin forms and endings. It also contains a substantial reference section of reading material for grammar explanations.

12

There are paradigm chart drills for the four major parts of speech: nouns, pronouns, adjectives, and verbs. Noun and adjective drills are chosen by declension (including "i-stem" nouns and irregular adjectives). Verb drills are chosen by tense, voice, conjugation (including third "i-stem"), and mood (indicative or subjunctive). Pronoun drills cover the full forms of eight major pronouns.

All but the pronoun drills involve sample vocabulary words, which are taken randomly from elementary-level vocabulary sets and presented as a full dictionary listing along with the meaning. Students begin each of these drills by forming the appropriate stem before proceeding on to the chart of endings.

Every drill chart offers several command options for help, hints, and exits to other parts of the program. These options are always listed at the bottom of drill charts. Of special note are the "help" and "hint" options: asking for "help" will fill out the complete chart for further studying on the spot, while a "hint" is presented in a simplified linguistic code, which, until learned, can be deciphered by referring to a chart that may be immediately "called up" onto the screen. These coded hints may not be useful for all students; but they are designed to help point out similarities hiding beneath all the otherwise apparent differences among declensions or conjugations.

Options are available at the beginning of the program for explanation of the program format and the special use of keys. Much of this information is also included in the user's manual, which also contains the vocabulary lists and general instructions about using the program and making authorized copies according to the site license.

The reference section of the program contains ten chapters, which vary in length from two to twelve pages. The topics include: Nouns & Pronouns, Cases & Functions, Gender & Number, Adjectives & Adverbs, Declensions & Conjugations, Verbs: An Introduction, Tenses, Moods & Other Verb Form Types, Voices, Person & Number. It is possible to page through this material forward and backward and to exit at any time.

The Apple version of this program comes on two disks: one for verbs, and the other for all other forms. It also uses a full 80-column format and, therefore, can only run on the IIc or a IIe with an 80-column card. The IBM version makes use of "function keys" for the command options mentioned above.

McArthur, W. Frank and Quinn, Robert A. Introduction to Latin Vocabulary I/II (2 disks). New York, NY: Gessler Publishing, 1985. Apple II+/e/c; 48K; $32.95 separately, $59.95 for both.

As its title pronounces, this pair of disks is devoted strictly to vocabulary. In this regard, though, it seems to have a dual purpose. First, while most vocabulary programs are coordinated with specific textbooks, this one is based on a more independently directed tutorial approach, in preparation for Latin reading courses about Roman life and culture. The words draw heavily from everyday concrete events: numbers, anatomy, food, the calendar, etc.

13

Each disk has eight sections to choose from on its main menu. Disk I includes: Introduction, Familiar Latin Words, Derivatives, Numbers, Roman Numerals, Little Words You Need to Know, The Long Mark, Vocabulary Drill. Disk II includes: Familiar Phrases, Endings, Medical Latin, Mathematical Latin, Roman Household, Roman Life, More Little Words, Verbs.

Each section contains a drill which covers anywhere from 20 to 112 words and can be ended at any time along the way. Some drills offer the option of a multiple choice format or straight cne-word translation, and there is usually the choice of translating from English to Latin or Latin to English. When a drill is conclu 'ed, a summary of missed words is presented which may be printed out if so desired. Some program responses during the drill are given in Latin (and explained in the Introduction): "Op-time!", "Bene!", "Tibi studendum est." Wrong answers receive the response, "The correct response is ...". Only one chance to answer is allowed on each question.

One extra facility which is provided by the first of the two disks is a teacher's editing option. This option can be used to create new lists of words for the Vocabulary Drill section (#8) and to make test printouts with a multiple-choice, matching or teacher--designed format. Perhaps to balance out this extra function available on the first disk, the second disk does have a greatly enlarged section on "Roman Life," with separate drills on the following topics: The City, Time, Foods, Nature, Army, Occupations, and Gods & Goddesses.

It should be pointed out that all lists of vocabulary words used by this program use only the main principal part (i.e. nominative singular [masculine for adjectives/pronouns] for declined words and infinitive for conjugated words). This helps make it possible to avoid much involvement with morphological and grammatical issues. The section entitled "Endings" on the second disk is devoted not to inflectional endings (though mention is made of them) but to common ways of making nouns out of verbs and the like.

The Introduction to Latin Vocabulary program presents and drills a large body of "concrete" Latin vocabulary (as opposed to oratorical or lyrical) and makes a substantial stab at English word power development, too. Sometimes it seems torn between these two objectives.

This program could be used as part of a word study course or as a vocabulary building supplement to an elementary or intermediate Latin course. The editing and test-making option might come in handy but would entail a good amount of time input from a teacher to customize word lists for a particular textbook. Perhaps, more than anything this program seems to be the thing to send a student off to work with on his own purely for enrichment purposes. It could also apply well to use at home, for adults as well as young people.

McCaffrey, Daniel V. Latin.Vrb. Ashland, VA: McCaffrey, 1985. Apple IIe/c; $30. (Available from the The American Classical League, Miami University, Oxford, OH 45056)

14

This program is aimed at drilling verb forms of the indicative mood. Translation from Latin to English is requested, and many different options for assistance are offered between questions. Since there is no chance to restrict the questioning to any particular voice or tense, the program is recommended for intermediate-level students or, at least, those who have learned all tenses for both voices of the indicative mood.

Correction of wrong answers is rather thorough, including a reverse-parsing of the given Latin form and a Latin translation of the student's answer, provided it is intelligible to the program. Five model verbs are used for all items: amo (love), moneo (advise), mitto (send), capio (capture), audio (hear); only the single, specified English equivalents are allowed in the answers. There is flexibility, however, in the acceptance of variable translations of a tense (e.g. perfect) or person (e.g. he/she/it). Instructions caution the student not to add any extra spaces at the end of the response since this will kick one out of the program; but there is no notice that the 'Caps Lock' key should be down, too, or the program cannot read a response.

Several options for assistance are available after each intelligible attempt. These options include: 1) a paradigm listing for the tense/voice of the current item; 2) an indicative synopsis for the appropriate person/number; 3) a comparison of the related active/passive forms; 4) a step-by-step, interactive line of questioning for arriving at the correct answer. Other options on the menu allow the student to make another try on the same verb form, move on to another one, see the correct answer, review the score (including a list of errors classified by tense/voice/subject; no permanent records kept), or quit the program.

An instruction sheet helps the student or teacher get started using the program. The program disk is not copy-protected, but only one archival backup copy is allowed for each original purchased. In general, Latin.Vrb is a flexible, easy-to-use program for its limited target of model indicative verb forms.

Mendriski, David J. Latin Exercises. Chicago, IL: International Film Bureau, 1985. Apple IIe/c; 48K; copy-protected; $150 (4 double-sided disks for 60 lessons), demo: $10.

Latin Exercises is directly coordinated with Allyn & Bacon's First Year Latin textbook (Jenney, Scudder, and Flynn). Each exercise is devoted to a specific lesson and includes most, if not all, aspects covered in that lesson. An exercise includes a set of instructions that reviews the material of the lesson and a set of twenty problems: either English-to-Latin translation or multiple-choice syntax questions.

The program begins with a simple menu listing the available lessons on a disk. A choice is allowed first as to whether the sound effects will be used. These include several musical melodies for correct responses and a dull buzz for incorrect ones. At the end of an exercise a score may be saved in a permanent file, if desired.

Within the limits of simple translation or multiple-choice questions, there is a creative variety of formats employed for the large number of lessons. The graphic layout of the screens shows some extra effort was applied within the limitations of simple text

15

graphics. Particularly good use of moving text and sound effects is used to put together the stem, tense sign, and personal ending pieces of an inflected verb.

The complete program includes four disks for the fifteen units of material in the text. Although the program is limited in application by its specific adaptation to a single textbook, the thorough planning behind it precludes any need for extra preparation time on the part of a teacher who does happen to be using this book. The on-screen instructions are clear and an accompanying instruction sheet fills in some helpful details for the teacher.

Protelsch, Thomas J. Latin Hangman. San Antonio, TX: George Earl, 1983. Apple II/+/e/c, III; 48K; $29.95.

Latin Hangman is one of several foreign-language versions of the old, stand-by quiz-game now adapted to the microcomputer by this publisher.

The choices available on the main menu include nine sets each of both short sentences and single words; each set consists of 25 items. The vocabulary is not geared to a specific text but, rather, uses popular Latin proverbs and a broad range of elementary Latin words.

Once a drill set has been chosen, the student is given the option of looking over the entire list first, one by one, or beginning the drill right away. The choice between a Latin-to-English or English-to-Latin drill format is also available.

When the drill begins, the graphic lettering switches over to an enlarged typescript. The quiz process follows the age-old sequence of guessing a letter at a time, having all occurrences of that letter filled in and losing a body part to the hangman's noose for wrong guesses until the word or sentence is complete or the entire body has been lost to the hangman. In this version, the limit is four wrong letters. Credit is only given for "perfect" answers (i.e. no wrong guesses), and the score is updated after each item. Items that are lost are presented again later. Partially correct, completed answers will be reviewed after the drill is finished. Scores are not recorded on disk. Although no exit is offered on the screen during the drill, the instruction sheet explains how to get back to the main menu at anytime.

Latin Hangman is really just an electronic version of the traditional guessing game, but it is one which can now be played on an individual basis and which uses only educational material for its challenges. Students can also extend the competitive edge of the game to compare scores on matching drills. It could be just one more entertaining way to hold attention long enough to pass on some valuable extra vocabulary and even a few proverbial pieces of wisdom.

16

18

Rubenstein, Judith. DISCO. St. Louis, MO: Rubenstein, 1984. Apple II/+/e/c; 48K; copy-protected: $30/disk, $250/set(9); site license: $350 ($25/copy of optional accompanying textbook).

DISCO is a set of nine disks, including exercises of many different formats covering virtually all grammatical forms used in an elementary Latin class (Verbs: indicative, subjunctive, infinitive, deponent; Nouns: all declensions; Adjectives: regular, irregular, comparison; Pronouns). There are also special drills on noun-adjective agreement, verb synopses, and vocabulary.

The program is designed to accompany a locally developed textbook, called The Permanent Latin Notebook (Sniffen, 1984), but its elements are broadly applicable and easy to select as needed, making it possible to be used with many other standard texts. The vocabulary drill may also be adapted to suit individual needs.

In the case of verb conjugation drills, any regular first or second conjugation verb may be proposed, and the program will take care of inflecting it automatically so that it can correct the student's responses. The program does assume that an appropriate verb has been entered. For other conjugations, a list of possible verbs (4-8) is offered for selection.

Options offered by the program include a musical introduction (classical, mind you, not modern "disco"-style) and a printout of the exercise. A score is presented for work on each drill, but it is not recorded on the disk. The format of the screens is simple but well organized, with good use of inverse-type and flashing highlights. Exit is allowed after each conjugation or other item is completed but usually not during a drill. Input is not controlled too strictly, so that some inappropriate responses may kick a user out of the program.

Both a copy-protected and a site-license version of this program are available. The textbook to which it is most directly tied is also available from the same publisher. The entire set of programs offers a versatile and comprehensive means of drilling a large array of morphological knowledge. Individual disks may be used separately to target particular areas which need more practice. A detailed user manual answers most questions that might arise during use of the program.

Scandura Training Systems (for Intellectual Software). Latin Tutor. Bridgeport, CT: Queue, 1983. Apple II/+/e/c, Franklin; $34.95.

Latin Tutor appears to be designed as a self-teaching program. The main menu offers eight options which are grouped by number into four pairs. The first three pairs deal with the present, past (imperfect) and future tenses, respectively. The first choice of each pair is a presentation of the forms for the respective tense in all four conjugations. The presentation is accompanied by a repetitious sequence of sounds, and there is no opportunity to exit until all four conjugations have been completed.

17

The second choice of each pair is a drill exercise of eight items involving the same tense. The English form is presented, and below that appears a series of question marks matching the exact length of the Latin form to be filled in. Items incorrectly answered are reviewed again later verbatim until correctly answered.

The final pair of choices on the menu is labeled "Reading Comprehension." Each of the two choices presents a single page-long paragraph of Latin with a few of the hardest vocabulary words explained below it. After reading and studying the paragraph, the student proceeds to the comprehension questions (six sentences, in Latin) and is again given the question-mark answer space which matches the desired answer in length. There is no way to return to the paragraph to study it again once the questions have begun. Remarkably, the reading level of the paragraph is far beyond the ability of anyone who would have needed the other six options on the menu.

Latin Tutor is a strikingly simple program with little in the way of instructive assistance. Because of its limited application, its repetitious sound-making and its inflexibility of movement within the program, there is not much to recommend this program for either classroom or tutorial use.

Turner, Chris. Computatus. Thornton, Ontario, Canada: Educom, 1984. Apple II+/e, Commodore 64/PET; $35.00. Available from The American Classical League, Miami University, Oxford, OH 45056.

Computatus is a vocabulary drill program which is coordinated with the Cambridge Latin Course (though there is no affiliation with the publishers of the CLC). Its use of color graphics and music make it immediately attractive to the student. No initial, procedural explanations are given by the program so it may be necessary for students/teachers unfamiliar with the keyboard and its use to read over the manual which accompanies the disk before using the program.

The first menu lists the possible vocabulary drills. These are only divided into the three regular Units of the CLC, and this makes it rather impractical to use the program until at least a full unit of the course has been completed. The second menu makes it possible for either the teacher to specify a required drill or the student to choose his/her own drill. This menu also allows for the review of scores that have been saved from earlier drills. Either the teacher or the student can also choose the part of speech and the difficulty of the words to be drilled (difficult, average or easy). The student is then prompted to enter his/her name and choose the number of words to be drilled from the total of available words.

From there on, the drill proceeds. A colorful screen for the drill includes the title of the drill and tallies of the number of words chosen, the number answered correctly, the percentage correct and the number left. The special graphics are also used for the words typed in by the student, and this could present a problem for fast typists who might find themselves losing letters which cannot be processed as fast as they are typed. Also, the addition of any extra spaces at the beginning or end of a word can keep a correct answer from matching properly.

18

The program's responses to student answers are in Latin and may need to be explained to beginning users: "Mi amice!," "Tu es caudex/stultissima/doctissimus!" (comments which are apparently meant to be taken lightly, in the manner of a good-humored video game).

At the end of a drill, a summary screen appears with the student's name and score, an appropriate upbeat or downbeat tune is played, and choices appear to test more students, list high scores (over 75%), or save results and end. Results are saved by date, but an exact date format (m/d/y or m-d-y) must be specified by the teacher in order to be able to accumulate all scores for review later.

The impressive use of color and sound in Computatus may seem to imitate the games in modern-day video arcades, but it is effective in attracting the attention of students for the often tedious work of vocabulary drill. The problems with typing and extra spaces are inconvenient but might be adapted to with patience. It is the Unit divisions, however, which make Computatus more of a review program than a regular, weekly vocabulary drill.

Weber, Langley, et al. Latin Verb Forms, Certamen Practice. Bedford, VA: tessera, 1983. Verb Forms: Apple IIe/c, $65.00 (with Participles: $85.00); Certamen: Apple IIe/c, TRS-80 Models III/4, $35.00 (extra Data Disks: $10.00 each); all disks with site license. Available from The American Classical League, Miami University, Oxford, OH 45056.

Latin Verb Forms is a drill exercise program which provides all the materials and means for a teacher to formulate a customized set of verb form drills, both for the computer and in printed form.

The format of the drill is the only pre-defined limit to the program's flexibility. Each drill set always contains twenty items, and the items are presented in reverse-parsing format: all possible categories are specified for a form, and the student is given two chances to type in the correct form. "Help" is offered in the way of principal parts and conjugation number when requested.

After a first wrong answer, the program will automatically compare it to all other possible forms of the verb to see if it can identify the mistake and tell what form was entered ("You would have been right if I had asked for ..."). This can take anywhere from ten to ninety seconds but can be stopped at any time by pressing any key.

After two wrong answers on the same item, the correct answer is presented along with the "formation rule" for that particular form. A question can be skipped after one wrong try, but no exit (besides turning off the computer) is offered from the exercise until all 20 items are completed. At that time, a summary of the exercise is available (and can be printed out) so that weak areas can be pinpointed. The summary includes: numbers of first tries correct, second tries correct, incorrect answers and skipped items, along with lists of both correct and incorrect responses. Those items answered incorrectly are presented in greater detail, with most of the entire item printed out: question,

19

answers given, correct answer and formation rule.

It is also possible to make printouts of this same drill, which can be used as workbook exercises or quizzes. A few variations on the standard drill are offered in this case: 1) the student may be asked for just the verb form or both the form and the formation rule in response to the parsing definition given, 2) the first principal part of the verb may be given along with the definition.

The real flexibility of this system lies in its second and third disks, the Verb Dictionary Disk and the Teacher's Update Disk. The Dictionary contains 400 verbs of virtually every type (irregular, deponent, "-io"), all their principal parts and all possible forms for each one of them (Participles are on a separate disk.). This makes it possible to use this program with any textbook, but it does involve a certain amount of input time on the teacher's part to sort out and choose the verbs and forms to be used in each exercise (The pre-set exercises are divided by conjugation and verb type, not by mood or tense.). This is the purpose of the Update disk, for which the Teacher's Manual offers clear, detailed instructions.

Tessera has just recently come out with a Participles Disk to extend the use of the Verb Forms Exercise package, and it has announced the imminent publication of a "Nouns & Adjectives" package to follow a similar format.

Certamen is a program based on the popular NJCL contest format of timed question-/answer drills. It offers several choices of topic, level and time limit. The choice of level must be matched with the separate "data disk," which is used after the "test disk" has been loaded. The instructions which accompany these choices are long and detailed, almost to the point of confusion at times, but many of them may be skipped over once the student becomes familiar with the program.

The drill questions have the benefit of multiple correct answers where necessary, and a correct answer is always presented by the computer after a wrong answer has been received. However, once the drill is begun, there is no easy exit available until the required twenty questions have been completed, and answers are judged very strictly on a letter-by-letter basis. After the drill is done, an optional print-out summary is offered, and the student may begin another drill or end the program there.

Several different data disks are available for practice, and new "theme" data disks are under production based on Ovid, Vergil and other major writers.

TITLE	COMPATIBILITY	COST	PUBLISHER	AVAILABLE FROM:
LATIN SKILLS: Verb Factory Mare Nostrum Cursus Honor. Artifex Verb. Translat	Apple II+/e Franklin 48K	89.00 each. 395.00 set(5) (scale slide) 15.00 demo	University of Delaware-OCBI Main & Academy Newark, DE 19716	Univ. Bookstore University of Delaware Newark, DE 19717
Vocabulary on the Attack On Target	Apple II/+/e/c 48K	39.95 each	Langenscheidt 46-35 54th Rd. Maspeth, NY 11378	Publisher
Quo Modo Dicis Idiom Master Latin Computer- ized Grammar I	Apple II/e/c 48K	49.95 each, 150.00 site license 5.00 demo	Lingo Fun Inc. P.O.Box 486 Westerville, OH 43081	Publisher
S.C.I.O.	IBM-PC and compatibles 128K	500.00 site license 10.00 demo	Kershenbaum 1105 E 18th St Brooklyn, NY 11230	Publisher
Latin Flash Drill	IBM-PC/comp. Apple IIc/e (w/ 80 col) 64K	95.00 site license 10.00 demo	Centaur Sys. P.O.Box 3220 Madison, WI 53704	Publisher or TMRC*
Introduction to Latin Vocabulary I/ II (2 disks)	Apple II+/e/c 48K	32.95 each, 59.95 pair	Gessler 900 Broadway New York, NY 10003	Publisher
Latin.Vrb	Apple IIe/c	30.00	D. McCaffrey Randolf-Macon Ashland, VA 23005	ACL-TMRC

ski	Latin Exercises	Apple II/e/c 48K	150.00 set(4) 10.00 demo	International Film Bureau 332 S.Michigan Chicago, IL 60604	Publisher
sch	Latin Hangman	Apple II+/e/c Apple III 48K	29.95	George Earl 1302 S.General McMullen Dr. San Antonio, TX 78237	International Software P.O.Box 486 Westerville, OH 43081
ein	Disco	Apple II/+/e/c	30.00 each 250.00 set(9) 350.00 site	Rubenstein 7394 Westmore- land Drive St. Louis, MO 63130	Publisher
a)	Latin Tutor	Apple II/+/e Franklin	34.95	Intellectual Software 798 North Ave. Fairfield, CT 06432	Publisher
	Computatus	Apple IIe/c Comm 64/PET	35.00	Educom R.R. 1 Thornton, ONT CANADA LOL 2NO	Publisher or TMRC*
	Verb Forms Participles Jenney Disks Student Tutor	Apple IIe/c set(6):	75.00 22.50 60.00 35.00	tessera, Inc. P.O.Box 522 Bedford, VA 24523	Publisher or TMRC*
	Noun/Adj/Adv Jenney Disks Student Tutor	Apple IIe/c set(5):	90.00 50.00 35.00		
	Certamen Data Disks (incl. Ovid, Vergil,Lyric, Goldman, Jenney)	TRS 80 III/4, Apple IIe/c, IBM-PC	45.00 15.00 each		(all student disks with site license)
	National Latin Exam Practice	Apple IIe/c	50.00		

(Teaching Materials and Resource Center), American Classical League,
*Miami University, Oxford, OH 45056

22

Appendix B: LATIN STUDENT SOFTWARE SURVEY FORM

Edgewood High School, Madison, Wisconsin

Name _____   Latin   I   II   III   IV/V   (circle one)

PLEASE, fill out only after GOOD acquaintance with program and
fill out ONLY ONE survey for EACH program....THANKS.

Software Name: ____ Computatus   ____ Delaware: ____
(check one)   ____ Tessera   (specify disk
                  ____ Latin Tutor   abbreviation)

I. COMPARISON SCALE: Rate the program's performance for the
following list of qualities by circling the appropriate number.

A. "User-Friendliness"

	Terrible	Poor	O.K.	Good	Excellent
General	1	2	3	4	5
Leads user step-by-step through program	1	2	3	4	5
Allows user to move back & forth through program	1	2	3	4	5
Explains any special use of keys (M,P,/,Return,etc)	1	2	3	4	5
Offers easy return to Menu/ Index	1	2	3	4	5
Allows easy exit from program	1	2	3	4	5

B. Instructional Effectiveness

General	1	2	3	4	5
Accepts answers flexibly (with extra spaces, etc)	1	2	3	4	5
Gives useful advice on partially correct answers	1	2	3	4	5
Offers useful help after wrong answers	1	2	3	4	5
Gives correct answer and clear explanation	1	2	3	4	5
Summary of results points out weak spots	1	2	3	4	5

23

C. <u>"Special Effects"</u>   Terrible Poor O.K. Good Excellent

	Terrible	Poor	O.K.	Good	Excellent
General	1	2	3	4	5
Attractive graphics (color, drawings,charts,lettering)	1	2	3	4	5
Stimulating use of sound (beeps,music)	1	2	3	4	5
Runs quickly and smoothly	1	2	3	4	5

. <u>DISTINCTIVE CHARACTERISTICS</u>: The following questions concern specific options which not all of the programs share and therefore cannot be judged comprehensively but are worth special consideration.

(circle one)

A. Do you appreciate the computer calling you by name during the program?   yes   don't care   no

B. Do you like the use of a "verb scan" which will tell you (after a wait) if your wrong answer is some other form of the verb?   yes   don't care   no

C. Do you think you can make good use of "grammar explanations" provided by a program (if they are well-written, of course)?   yes   don't care   no

. <u>COMMENTS</u>: Please add any other <u>constructive</u> remarks or explanations for your answers. Anonymity is optional.

THANKS FOR YOUR HELP

24