































The Murphy Centre has been involved in several literacy initiatives and has a good reputation for delivering education to those learners who encounter challenges with their learning.

### **Project Participants**

Several of the instructors from the Murphy Centre were involved with the evaluation of the software provided by NALD. These instructors recommended the learners who would take part in the evaluation of the software. In some cases they fulfilled a mentoring role for the learners.

While generally all the instructors supported the work of evaluation of the software, there was one lead instructor, the Murphy Centre's technology support person. This person provided excellent support and consequently, learners did not encounter too much difficulty. Learners, once they were provided with an initial introduction to the process, worked independently on the evaluations of specific software. However, it needs to be noted that most of the learners were at the grades 9 to 12 level and were accustomed to working with computer technologies.

Record keeping was the responsibility of the lead instructor. Learners, once they reviewed the software, completed the evaluation form approved by the NALD Software Steering Committee. This information was recorded and forwarded to Yvonne Chard, the person responsible for compiling the results of the evaluation.

### **Availability of Hardware, Software, and Technical Support**

In the Murphy Centre, 8 networked Pentium computers were used for this project. A technology facilitator provided support to staff and participants. She loaded all programs and gave an introduction to participants and staff on the use of the programs. This facilitator was available for staff and participants during all evaluations. Some difficulty was experienced loading some programs.

### **Anecdotal Information**

We did not collect quotes from participants. We did observe empowerment of the participants. They informed staff that they felt like they were contributing and felt good about this contribution. They were delighted that their opinions mattered. Most participants were eager to contribute. They also expressed that they were happy about having a say in the programs they could work with in the future.

### **Challenges/Solutions**

Some of the challenges we faced included the following:

- The technology itself was the biggest challenge. Getting some programs to work caused frustration.

- Keeping participants on task when they did not enjoy the programs was challenging, too.
- Some programs were not user friendly and frustrated some participants.
- Our student population changes on a regular basis, so orientation had to be repeated for new participants.
- Internal technical problems meant that e-mail exchanges with the rest of the software evaluation project members were not received or sent.
- Some of the programs evaluated were too dated.
- Some programs were not suitable for adult learners.

### **Centre Recommendations**

Our recommendations include the following:

- One coordinator should have been directly responsible for communication between sites for the whole project.
- Newer programs should be selected for evaluation.

### **3.4 Delview Adult Centre Delta, British Columbia Yvonne Chard**

#### **Description of Centre**

The Delview Adult Centre is the biggest adult education centre in the Delta School District Continuing Education area of British Columbia. The Delview Centre mission statement reads:

The Delview Adult Centre is a multi-cultural learning facility dedicated to empowering adult learners to achieve their full intellectual, social, and personal potential. A team effort is cultivated to make learning a positive experience. We commit to inform, involve, and inspire each other through participation in our ESL, ABE and HSC programs.



There are about 42 adult educators, with a wide range of classes in ESL, ABE, HSC and GED being offered both daytime and evenings.

Delta is located just south of Vancouver in what was primarily a fishing and farming area. Delta combines a peaceful, rural look with fast access to all of the features of a major city. Many new immigrants are coming to the area, and more recently the majority are from India, Taiwan, Korea, with a growth also in arrivals from El Salvador, Columbia, and Somalia. Delta has three distinct areas, with different populations. More European immigrants are to be found in the slow growth Tsawwassen area while north Delta is growing rapidly and shares a main shopping street as a border with Surrey.

### **Project Participants**

The ELSA and ABE division students took part in the project. These are students who are immigrants to Canada, and others who either did not complete their graduation requirement in BC or wish to improve on the marks already obtained. Students are also able to attend basic English and Math courses.

Yvonne Chard, the program coordinator, has a lot of technical and software experience and knowledge. She has not been formally taught, but gained her knowledge by interest and perseverance, and from helpful friends.

During the Software Evaluation Project, one member of the community helped voluntarily for about 42 hours. Several staff members acted as facilitators, organizing the students and doing some of the evaluations. Some teachers did some of the facilitator evaluations. Technical support was provided by the School District Computer Maintenance Department.

Often the learner/evaluators were the English Second Language students. During the pilot stage of the project, two grade 10 students provided a lot of leadership and record-keeping, although most of the record-keeping for the year of the project was done by a district clerical staff member, with recording done on the program MS Excel. Progress sheets of hours and programs evaluated were kept on a special bulletin board for the students to refer to.

### **Availability of Hardware, Software, and Technical Support**

In Delview Centre a variety of hardware was used, from DOS-based 282 machines to state-of-the-art new machines. Most evaluations were done on 486 machines, and, in the latter part of the year, these were networked.

When the Program Coordinator couldn't solve a technical problem, the School District staff members were called in. They also set up the network. Several technical difficulties were encountered – some programs did not work on the faster computers and some programs were difficult to install. The local networking provided a few challenges for programs which were programmed to install to the C drive, but networking worked well for the DOS-based programs on the 486 machines.

### **Anecdotal Information**

One of the programs, Word Gallery, has been in use for about 9 years for the basic ESL level students in Delview.

Lubimir, a student leader, took special interest in checking out all of the math programs to see which ones required answers to be written from the left to the right, because he found this immensely annoying.

### **Challenges/solutions**

The pilot stage was a very exciting part of the project at Delview, with a group identified as "the team" working many hours together. As the main project took place, momentum slowed, and more often we used a class group or individuals worked alone to evaluate programs. As incentives, Delview Centre gave reference letters to those who completed more than 20 hours of volunteer work. Helen used one of these in her successful first job application.

It was a challenge to maintain interest with a changing student body. So many interesting websites offer English and Math instruction. Delview has permanent cable Internet access on 20 machines, so there was a lot of competition for programs to be used in free and class time.

We found that students were more motivated than the teaching staff. However, teachers were cooperative in allowing class time to be used for occasional sessions of evaluation. Many of the staff at Delview were still a little hesitant with technology use and were not excited about trying out a lot of programs which all have different entry and exit styles and require creativity in usage.

Delview offers three terms a year, and many of the ABE students change. Also, the ELSA students seem to be transient. Thus consistent evaluation was a problem.

Some of the English learners had difficulty evaluating some of the programs involving higher math. Some higher-level English-speaking students thought that some of the English instruction was too fundamental, yet ESL beginners really liked the same software.

### **Centre Recommendations**

Those involved in the Delview project have several experiences and learnings to share:

- It proved most helpful to have a paid staff member doing all of the paper work and record keeping.
- A shorter time frame for the project would have better maintained participant interest. Separating Math and English software programs, or some other grouping, might have improved evaluations.
- Some of the programs came for various platforms, e.g. DOS or Windows 95. It is easier and faster to use the highest-level platform possible.
- In the earlier stages especially, learner involvement and pride in the activity was maintained by using a bulletin board to show graphs of participation by individual students and naming the 'team'.
- Often students did not have the same opinion about programs as the instructors. Some material which instructors liked was considered to be boring by students and vice versa. Keep an open mind when deciding what may appeal or be useful to centres and students.

### **3.5 Hawkins Neville Community Academic Services Program Fredericton, New Brunswick April Kennedy**

#### **Description of Centre**

The Community Academic Services Program (CASP) is a provincial academic upgrading program for adults aged 19 and older. Working in partnership with the New Brunswick Community Colleges and Literacy New Brunswick, CASPs are located in diverse community settings each run by a committee of volunteers.



The Hawkins Neville CASP is located at the Hawkins Neville Community Centre in a public housing community in Fredericton. The community centre provides a variety of services to approximately sixty low-income families. These services are intended to improve the overall quality of life of families in the area.

The CASP offers free academic upgrading in English, math, computer literacy, ESL, and GED preparation. It is open to members of the housing community and the greater Fredericton community as well. The program employs one full-time facilitator who instructs eight full time and three part time students. The program aims to meet the individual learning needs of each student by providing individualized lesson plans and one-on-one instruction.

#### **Availability of Hardware, Software, and Technical Support**

From September 2002 to June 2003 the staff and students of the Hawkins Neville CASP evaluated a total of 67 software/shareware programs all in either Win 3.1 or Win 95.

This CASP shares space with a community access centre which is run by a similar committee and Connect NB Branché. The partnership between the two programs gives the CASP access to six PCs with Win 3.1/Win 95 or higher, Internet connection, and technical support.

#### **Project Participants**

There was some overlap of roles due to the limited number of people available. The project participants included the CASP instructor as the project coordinator, the Access Centre manager for project technical support, and eight student volunteers as program evaluators (six full time and two part time).

The project coordinator participated on the project planning team with representatives from each site and from NALD. This initial phase included recruiting student volunteers, providing project orientation to participants, creating a project manual for the participants, performing administrative tasks and record-keeping, completing 67

instructor evaluations, co-ordinating student evaluations, and providing on-going support to other project participants.

The Project Technician installed software programs, provided detailed information on technical requirements for each program, and provided on-going technical support throughout the project.

The student evaluators participated in the orientation, completed a computer skills assessment, completed between 10 and 15 evaluations each, and provided peer support and valuable project feedback.

### **Challenges/Benefits**

This site experienced two main challenges while completing the project. The first was a changeover in staff with the technician. In the first phase of the project only about half of the programs were installed and there was a lack of information on technical requirements. We did not experience any difficulty during the second phase, however, as the new technician worked very hard to compensate for the lack of work done initially. As a result, we were able to successfully complete this phase of the project.

The other challenge we faced was maintaining enthusiasm and commitment from student participants. Realizing the value of the time and effort that the student volunteers were giving to the project, we worked very hard to continually reinforce our appreciation. We attempted to do the evaluations in groups, providing food and beverages and the opportunity to socialize. This appeared to work as an incentive for some participants, while others preferred to complete the evaluations on their own time. In December, approximately midway through the project, we offered a gift certificate to each participant to show our appreciation. These were very well received since Christmas was approaching and many of our students have financial difficulties. Throughout the project we attempted to emphasize the value of the transferable skills being developed. Students were proud of participating in a national project and perceived the work they were doing to be important. They realized their progress in computer literacy and many showed a desire to continue to develop these skills.

Throughout our evaluations several programs proved to be very useful in our classroom. The majority of math programs evaluated were more useful as a practice tool than for learning new skills. These were useful but did not prove to be as valuable as many of the English programs. The following is a list of programs evaluated at this site that appeared to enhance learning for those who tried them.

ACCU Reading	Word Search Factory (teaching tool)
Paragraph Punch	Choices (teaching tool)
ESL Demons	Ray's Spelling

The project was an excellent learning opportunity for both students and staff at the Hawkins Neville CASP.

### **3.6 The Learning Centre Edmonton, Alberta Andrea Pheasey**

#### **Description of the Centre**

The Learning Centre is located in downtown Edmonton but serves adult learners from all over the city. A board of directors oversees policy direction and runs the Centre. Co-coordinators manage the day-to-day operations of the Centre. One coordinator handles programming and student assessment; the other looks after financial matters and management of volunteers. Besides the two coordinators there are three part-time teachers and one part-time support person. Presently there are about 40 part-time students at the Centre.



#### **Project Participants**

Originally eight students volunteered to help evaluate software. This number dwindled down to four active and steady members. The students who volunteered and stuck with the project represented all reading levels at the Learning Centre. We found this was very helpful in getting an excellent description of the software from many different reading perspectives.

Our information and communication expert, Laval, was also a very active and steady member of our group. We had trouble from the beginning with our computers and with installation of the programs. The computers are old and had been donated to the Centre; most look very well used.

The learners were taught to open the programs, which they did on their own, and to begin by reading any instructions provided if they were able. I helped with the reading if necessary and I also helped some learners with the evaluation form at the beginning. The more advanced readers did try the programs and filled out the forms on their own. They were helped with any technical problems whenever necessary.

#### **Availability of Hardware, Software, and Technical Support**

One of the reasons the Learning Centre was chosen to participate in this evaluation was because we have Mac computers, all of which have been donated by businesses or private citizens in our area. We used three computers shared among five regular participant volunteers.

The computers are all older models and were not networked. Laval, who had quite a time keeping these older model computers in running order, provided the technical support for the learners. However, the group persevered and became proficient in starting the computers, opening the software, and understanding the idiosyncrasies of each computer.

### **Anecdotal Information**

All the anecdotal information following is quoted from the "comments" section of the student evaluation forms, or from conversations I, as the project coordinator, had with the students. All the students chose "Use my real name" from the options available regarding use of their identity so I will attribute comments using first names only.

What I would like to show is the growth in the students' comfort with the technology and their confidence in expressing opinions so I will quote from the earliest evaluation forms and conversations and progress through to their later ones.

#### **Holly**

"Helped with the big words."

"Health is very important to people; you have to be a pretty good reader to do this."

"I liked this program except the mouse doesn't have enough play in it...you can't aim properly."

"The program would be good if there was a help button."

"I don't recommend this because the only way to start over is to unplug the computer."

"I don't like this program!"

"I didn't find it interesting or helpful for me. It requires way too much reading."

"The voice was terrible."

#### **Barb**

Barb initially made no comment about the programs because she said she didn't have anything to say. It was not until October of 2002 that she started to comment.

"I liked it."

"It was excellent, I would like to do it more."

"It was very helpful...I liked the talking owl."

"I liked the sound effects...we need more of these."

"Level one was good. Telephone book and dictionary was good."

"I found it fun where the teacher put in spelling words. I like the part where betting is involved."

"It was too easy, I don't think adults will go for it."

#### **Helen**

"Well, it would be good for the students to do this, if they wanted to."

"This is very good for students who want to learn metric."

"This is no good for anybody. I can't understand; it is confusing."

"It is very hard to find the exit button."

"The sound is too noisy."

## **Ivan**

Ivan also found it very hard to be critical of the software. He always tried to find something good in it and commented on that instead of an overall rating.

"Some software is hard, but I must keep using them."

"The metric system is quite widespread."

"It was interesting and challenging."

"The story helps define learning."

"Format requires more information, but that is negligible."

## **Challenges/Solutions**

Keeping volunteers – We started with seven participants but that settled down to four pretty faithful attendees. The reasons for dropping out were individual and mostly had to do with other commitments or reduced interest in the project.

Incentives and maintaining interest with the students - Some of the incentives we used to maintain interest were lunches out, special acknowledgements in our newsletter, and a picnic at the end as a reward for keeping on to finish the project. I took a group picture when Charles Ramsey was in Edmonton and came to see our project in operation. We put the picture on coffee mugs so group members got functional trophies for their work. Students maintained their own interest through their increased ability with the computers. They mentioned often how much the project helped them with their computer literacy.

Matching learners to the software – All the students were encouraged to try any software they wanted to. At first I found that they gravitated to the software at their reading level but soon were trying anything that interested them. More able students had a wonderful time teaching software to other participants.

Attitude toward technology – Because our computers are older models that needed a lot of maintenance, some participants were initially afraid they might damage the machines. When it became clear Laval (our IT expert) and I were unconcerned about the computers being damaged the participants relaxed and had fun with the software.

Working across the country – I found the communication on the listserv very good; it was timely and convenient. I particularly liked being included in other people's conversations (even the car rental conversation earlier this summer) because it kept me abreast of what everyone else was doing even though I may not be directly involved. More face-to-face meetings would have been a great way to get to know each other better but the cost to the study and time away from our various centres would have made them difficult to manage.

## **Centre Recommendations**

Our staffing was perfect for the number of computers and participants we had. We worked twice a week for sessions of two hours, which was also about right.

The evaluation forms were a big problem for our students, first because some could not read them and second because the wording was unclear; for example, "The program gives enough practice." Some students wanted to know what "enough practice" is. Another example, the statements "The program has no gender bias" and "The program has no ethnic or racial bias" should have been written as positive statements to help students know how to respond. I would have been happier with more emphasis on the comments portion of the form. Perhaps the students could have spent time describing the software (what was good and not so good about it) in their own words.

The learner involvement was the best aspect of this software evaluation project. The growth I saw in the students, not only in their computer skills but also in their confidence and their sense of contributing to the learning of others, was wonderful.

### **3.7 Parkland Regional College Yorkton, Saskatchewan Roshan Hemani**

#### **Description of Centre**

Parkland Regional College is governed by a Board of Directors, which is guided by a Chief Executive Officer. The College employs 105 persons with a total full-time equivalent of 59.87. These numbers include 46 Instructors, one Learning Specialist and six Counsellors in addition to Clerical, Administration and Custodial staff.



Parkland Regional College is a proactive, rural educational organization, which provides access to life-long learning opportunities that respond to the needs of our adult population. These needs are served from five different locations in the college region.

The College is located in the east central part of Saskatchewan, bounded on the east by the Saskatchewan/Manitoba border and on the south by the Qu'Appelle River. Municipal boundaries define the north and west borders of the region. The College serves an estimated adult population of 72,178 distributed through an approximate area of 10,605 square miles.

Students attending the college may choose from programs and services including basic literacy, adult 10-12, GED testing, technical skills training, including industry/community skills training, and a variety of courses from the University of Regina and University of Saskatchewan.

### **Participants' Roles**

Three members of the staff – Kathy McDonald, Gerry Yacishyn and Carol McCullough – were involved in the software evaluation. Kathy is the instructor for the Adult Basic Education Program at Fort Qu'Appelle. She has a fair amount of technical expertise. After the software was installed by our computer systems operator, she was totally independent. Gerry instructs literacy level learners in the Computer Assisted Learning Centre in Yorkton. She has some technical expertise, and she handled the evaluations well. Carol is the Literacy Program Coordinator. Her role was to facilitate the NALD Project in addition to doing the instructor evaluations for one-third of the software assigned to our centre. Her technical expertise is limited, but this was not a problem as technical support was available on an on-call basis.

Approximately forty learners were involved, and they comprised a diverse group. The student evaluators included full-time Adult Basic Education students, part time Literacy level students and E.S.L. learners. Approximately 70% of the student participants were of Aboriginal descent. Many of the learners are financially dependent on outside agencies, and have access to computers only at the college and the public library.

Each of the evaluators completed the evaluation forms as they viewed the software. Then the evaluation forms were given to the facilitator, who collated them and compiled a summary of the results of the evaluations. The facilitator also provided on-going support to the participants on a regular basis.

### **Availability of Hardware, Software and Technical Support**

Software to be evaluated was divided into three packages and installed on six computers, two at the Fort Qu'Appelle location and four at the Yorkton location. Because our centre was responsible for the evaluation of older DOS-based programs, slower, older computers were used. Our on-site technical support person installed the software and made himself available on an "as-needed" basis.

The main difficulties encountered were a result of the age of the computers and the software. Some of the programs would not install, and some, once installed, could not be opened. These frustrations, coupled with the fact that the programs were slower and older than the students and instructors were accustomed to using at the college, resulted in a lack of enthusiasm among the evaluators.

### **Anecdotal Information**

Anecdotal information was collected from comments included on the evaluation forms as well as from comments made verbally.

Mary, a student evaluator in the literacy program, enjoyed evaluating the "Bingo Mathness" program so much that she asked her instructor if she could continue playing it rather than participating in the math tutorial that day. She spent the entire afternoon on the program, and went back to it any time she had some spare time.

ABE students at Fort Qu'Appelle enjoyed "Word Games at Camelot" so much that they spent subsequent noon hours paging through the dictionary and taking turns playing the game.

Victoria, an ESL student, spent about an hour evaluating the "Snowman" (hangman) program. She said she was learning to spell so many new words and it was fun watching the snowman melt with each incorrect response. She found it very engaging.

### **Challenges/Solutions**

A lack of cooperation from one of the instructors was one of our main challenges, as it was then difficult to obtain student participation from that particular group of students. The project facilitator did the instructor evaluations in this situation, and one student agreed to do the student evaluations on her lunch hour provided her lunch was supplied.

Student enthusiasm for the project was low due to the age of the programs and the computers used. Some of the students, already using newer technology at the college, objected to the old, slow computers. Student enthusiasm reflected instructor enthusiasm.

Obtaining licenses for the programs proved to be a challenge, also, due to the age of the programs evaluated in our centre.

Staff and student turnover posed some problems as well. Because the project was piloted in the spring, most of the students who evaluated Phase I software had not done the pilot project. There was a turnover of students again between Phase I and Phase II because the two phases spanned two different trimesters. Our centre does continuous intake, so this, also, contributed to a lack of continuity in the evaluators. The project facilitator also changed between the pilot and Phases I and II, due to a staff change between the spring of 2002 and the beginning of the next academic year in the fall of 2002.

The forms provided for student and instructor evaluation were good. However, the summary of the information provided would have been more consistent if a similar form had been devised in advance for that purpose. Then all centres would have summarized the information using the same criteria. A pre-determined format for the final report would also have been helpful as facilitators would have known in advance what information would need to be collected for inclusion in the report. More frequent communication among coordinators, perhaps through conference calls, may have provided a low-cost solution to some of the problems outlined above.

Certificates of Participation were given to the student evaluators for their portfolios, and thanks were extended to the participants in our quarterly Literacy Newsletter.

### Centre Recommendations

The project would have been more easily conducted if it had been completed within one academic year (September-June). Enthusiasm among staff and student participants needs to be generated before the project begins by publicizing the benefits of and incentives for a job well done.

Technical support is absolutely essential, and learner involvement is vital.

The mix of organization “types” was a strength of the project as there was a good cross-section of the population of the country involved in the project, and programs that may be very useful to one type of organization may be of lesser value to another.

Overall, the project was a positive learning experience, and we are looking forward to the availability of educational software programs on the NALD website in the near future!



*Centre Coordinators. From left: Roshan Hemani, Andrea Pheasey, April Kennedy, Yvonne Chard, Heather McCormick, and Tim Turner.*

## 4.0 METHODOLOGY

Data for this report were collected in a number of ways from a variety of sources. The team members of participating centres relied on evaluation forms, notes and consultations to develop their individual reports.

The "evaluation" and "notes" pages for the software provided a set of data for the project website and this report, and a summary is provided as Section 5.0 of this report. The complete evaluations and notes are available on the NALD website and CD-ROM, along with the programs themselves for downloading purposes.

The options provided under "content" and "skill level" were not pre-defined for consistency, so instructors and learners chose the selection that reflected their own understandings. The skill levels refer to grade levels, though such are not always appropriate or desirable in describing adult literacy levels. This report and the project website recognize that the programs are useful in K-12 settings as well as adult literacy centres. Further, most facilitators included unintended learning outcomes (such as skills used or learned) as well as intended learning outcomes (skills taught) when describing the content of the programs. For example, most programs were identified as teaching computer skills because users acquired or enhanced technological literacy while using the software to learn or improve other skills, regardless of whether that was one of the aims of the program.

As this project evaluation is process oriented, listserv (email) communications among the project team members were archived throughout the process. Secondly, the second meeting functioned as a focus group; through general discussion, meanings and understandings of the value of the process emerged and were documented. In the analysis process, categories emerged, and illustrative examples were selected for this report. These findings are reported below as process outcomes (section 6.0).

During the second meeting, this report was structured and outlined in considerable detail. Bill Yerxa, the meeting facilitator, used a laptop and data projector to type and edit points contributed by all team members. Thus the points projected on the screen were read and re-read by all team members and edited until everyone agreed with each point and its wording. Statistics and other specific data needed to flesh out the report were sought out and added later; placeholders were used to signal where such information would be inserted.

Through a collaborative process, during the second meeting, headings were developed to prompt the development of the individual centre reports.

When the outline for this report was completed to a satisfactory point, a hard copy was generated and sent to all team members for review.

## 5.0 SOFTWARE EVALUATION RESULTS

	<b>Title (file name)</b>	<b>OS</b>	<b>Content</b>	<b>Skill Level</b>	<b>Cost</b>	<b>Rating in %</b>
1	1st class gradebook (1st65q.exe)	Win 3.1	Record-keeping	Multi-level	69.99 US	*** 50
2	ABCs alphabetical order (CALL-ABCs.sea)	Mac	Spelling	Multi-level	Free	***** 88
3	ACCU Reading (accurd20.exe)	Win 3.1	Reading, Vocabulary	Multi-level, ESL	24	***** 92
4	Ace Reader (Ace Reader.sea, acerd30.exe)	Win 95, Mac	Reading	Multi-level, ESL	24.95	***** 100
5	Addition Drill (CALL- Addition Drill.sea)	Mac	Math	Level 1-4	Free	***** 71
6	Alpha-Bet (AlphaBET.sea)	Mac	Reading, Writing	Levels 1-4 and 5-8	12	***** 72
7	Arithmeticus (Arithmeticus.sea)	Mac	Math	Multi-level	50	***** 88
8	Basic Math (wbasic.exe)	DOS	Math	Levels 1-4 and 5-8	15US	***** 88
9	Be Fruitful and Multiply (Be Fruitful & Multiply.sea)	Mac	Math	Level 1-4	Free	***** 75
10	Big Math Attack (bigma250.exe)	DOS	Math	Levels 1-4 and 5-8	9.95	*** 58
11	Bingo Mathness (bingmath.exe)	DOS	Math	Levels 1-4 and 5-8, ESL	19.95	***** 83
12	Blast Words (blstwrds.exe)	DOS	Reading, Spelling Vocabulary	Multi-level	18.95	*** 67
13	Break the Wall (swal32d1.exe)	Win 3.1	Math	Level 1-4	12	*** 62
14	Camping Story (Camping Story.sea)	Mac	Reading	Level 1-4, ESL	2	***** 72
15	Capital Idea (CALL- Capital idea.sea)	Mac	Grammar	Level 1-4, ESL	Free	***** 83
16	Chalkboard Math (cmat15.exe)	Win 3.1	Reading, Math	Levels 1-4 and 5-8	16	***** 90
17	Choices (choice11.exe)	Win 3.1	Reading	Multi-level, ESL	Free	***** 83

	<b>Title (file name)</b>	<b>OS</b>	<b>Content</b>	<b>Skill Level</b>	<b>Cost</b>	<b>Rating in %</b>
18	Clozemaker (cloze11.exe)	Win 3.1	Reading, Spelling Vocabulary, Grammar	Levels 1-4 and 5-8	Free	★★★★★ 100
19	Create a Quiz (quiz400.exe)	Win 3.1	Whatever is put in - English, Social Studies...	Multi-level	34.95 + 150	★★★★★ 100
20	Developing Critical Thinking (dcts1x20.exe)	Win 3.1	Reading, Vocabulary	Levels 5-8 and 9-10	27	★★★★★ 94
21	Diagnostic Grammar (dpg10.exe)	Win 3.1	Reading, Writing, Vocabulary, Grammar	Levels 1-4, 5-8 and 9-10, ESL	154 US	★★★★★ 100
22	Diagnostic Reading (dpread20.exe)	Win 3.1	Reading, Writing, Vocabulary	Multi-level	154 US	★★★★ 84
23	Division Dozer (CALL: Division Dozer.sea)	Mac	Math	Levels 1-4 and 5-8	Free	★★★★★ 100
24	Edwin Add/Subtract (edam03.exe)	Win 3.1	Math, Reading	Level 1-4	Free	★★★★★ 100
25	English 201 - Homonyms (engh95.exe)	Win 95	Reading, Spelling Grammar, Vocabulary	Levels 5-8 and 9-10	15	★★★★ 73
26	English 202 - Antonyms (enga95.exe)	Win 3.1	Spelling, Reading, Grammar	Levels 1-4 and 5-8	15	★★★★★ 88
27	English 203 - Synonyms (ensy95.exe)	Win 3.1	Spelling, Reading Grammar, Vocabulary	Levels 1-4 and 5-8	15	★★★ 63
28	English 207 - Possessives (enpo95.exe)	Win 95	Spelling, Reading Grammar	Levels 1-4 and 5-8	15	★★★★★ 94
29	English 210 - Types of Sentences (engz95.exe)	Win 95	Spelling, Reading Writing, Vocabulary, Grammar	Multi-level	15	★★★★★ 100
30	English 211 - Simple and Compound Sentence (ensc95.exe)	Win 95	Reading, Writing, Spelling, Vocabulary, Grammar	Levels 1-4 and 5-8, ESL	15	★★★★★ 88
31	English 213 - Punctuation (enps95.exe)	Win 95	Grammar, Writing, Reading	Levels 1-4 and 5-8	15	★★★★ 75

	<b>Title (file name)</b>	<b>OS</b>	<b>Content</b>	<b>Skill Level</b>	<b>Cost</b>	<b>Rating in %</b>
32	English 215 - Nouns (engn95.exe)	Win 95	Writing, Spelling, Grammar, Reading, Vocabulary	Levels 1-4 and 5-8, ESL	15	★★★★ 83
33	English 217 - Pronouns (enpn95.exe)	Win 95	Vocabulary, Reading, Grammar	Levels 1-4 and 5-8	15	★★★★ 65
34	English 218 - Verbs (engvrb.exe)	Win 95	Reading, Writing, Spelling, Vocabulary Grammar	Levels 1-4 and 5-8	15	★★★★★ 91
35	English 222 - Conjunctions (engcnj.exe)	Win 95	Reading, Writing, Spelling, Vocabulary, Grammar	Multi-level	15	★★★★★ 96
36	English 223 - Interjections (engitj.exe)	Win 95	Reading, Grammar	Levels 1-4 and 5-8	15	★★★★ 50
37	ESL Demons/ESL Fitness (esldml20.exe)	Win 3.1	Reading, writing, vocabulary, grammar	Level 5-8, ESL	36	★★★★★ 96
38	Europe (eurwin22.exe)	Win 3.1, Mac	Geography	Level 5-8, ESL	10	★★★★★ 90
39	Evidences (ngame14.exe)	DOS	Reading, Other	Level 9-10	Free	★★★★ 63
40	E-Z Spell (easysp.exe)	Win 95	Spelling	Level 1-4, ESL	24.99	★★★★ 77
41	Fastype (fastyp52.exe)	Win 95	Typing	Multi-level	25	★★★★★ 92
42	Flash Cards - Math (flshcrdm.exe)	DOS	Reading, Math	Level 1-4	15US	★★★★★ 88
43	Focus on New Brunswick (CALL-Focus on New Brunswick.s ea)	Mac	Reading, Vocabulary	Multi-level	Free	★★★★★ 100
44	Grammar Demons / Grammar Fitness (gdemon.exe)	Win 3.1	Reading, Writing, Spelling, Grammar	Levels 1-4 and 5-8, ESL	27	★★★★★ 100
45	Grammar Games (CALL-Gramma~r Games.sea)	Mac	Writing, Grammar	Levels 1-4, 5-8 and 9-10, ESL	Free	★★★★ 75
46	Hang 'em (hangem12.exe)	Win 95	Spelling, Vocabulary	Levels 1-4 and 5-8	25	★★★★ 71

	<b>Title (file name)</b>	<b>OS</b>	<b>Content</b>	<b>Skill Level</b>	<b>Cost</b>	<b>Rating in %</b>
47	Intro to Basic Math (nmath07.exe)	DOS	Math	Levels 5-8 and 9-10	15US	★★★★ 75
48	Jumble (jumble.exe)	Win 3.1	Spelling, grammar, other.	Levels 9-10 and 10-12	Free	★★★★★ 100
49	Jurassic Spelling (nspell02.exe)	DOS	Spelling	Multi-level	34	★★★★ 80
50	Kid Math (kidsmath.exe)	Win 3.1	Math	Levels 1-4 and 5-8	Free	★★★★★ 86
51	Letter Sounds (lsndald.exe)	Win 3.1	Reading, Writing, Spelling	Multi-level, level 1-4, ESL	Free	★★★ 57
52	MacEmatics (mac-ematics-215.hqx)	Mac	Math	Levels 1-4 and 5-8	15US	★★★★ 73
53	Mad Minute Math (madmath.exe)	Win 3.1	Math	Levels 1-4 and 5-8	13US	★★★★ 84
54	Magic of Metric (CALL-Magic of Metric.sea)	Mac	Math	Levels 1-4 and 5-8	Free	★★★★ 83
55	Master spell (Master Spell.sea)	Mac	Spelling	Levels 1-4 and 5-8	15	★★★★★ 88
56	Math bee (addbee10.exe)	Win 95	Math	Level 1-4	14.95	★★★★★ 100
57	Math Card (mathcard.exe)	Win 95	Math	Levels 1-4 and 5-8	8	★★★★★ 96
58	Math Counts (nmath11.exe)	DOS	Math	Level 1-4	29.95 US	★★★★★ 100
59	Math Flight (mthflw31.exe, mathfl12.exe)	Win 3.1	Math	Levels 1-4 and 5-8	9.95U S	★★★★ 75
60	Math Go (MathGo.sea)	Mac	Math	Multi-level	21 US	★★★★ 75
61	Math Skill Builder (mthskllb.exe)	Win 95	Math	Levels 1-4 and 5-8	34.95 US	★★★ 66
62	Math Tutor (mathtut2.exe)	Win 95	Math	Levels 1-4 and 5-8	10US	★★★ 52
63	Math You (nmath18.exe)	DOS	Math	Levels 1-4 and 5-8	25US	★★★★ 82
64	Memotest (memotest.exe)	Win 3.1	Memory	Multi-level	Free	★★★ 68
65	Multi-Fun Math (mtfun2.exe)	Win 95	Math	Levels 1-4 and 5-8	10	★★★★ 76

	<b>Title (file name)</b>	<b>OS</b>	<b>Content</b>	<b>Skill Level</b>	<b>Cost</b>	<b>Rating in %</b>
66	My Spelling Bee (mspell.exe)	Win 3.1	Reading, Spelling, Speaking	Multi-level	US 19.95	★★★ 50
67	Number Target (Number Target.sea)	Mac	Math	Multi-level	US30	★★★★★ 88
68	Paragraph Punch (parnum32.exe)	Win 95	Reading, Writing, Spelling, Vocabulary, Grammar	Levels 1-4, 5-8 and 9-10	179	★★★★★ 94
69	Parts of Speech (Parts of Speech.sea)	Mac	Reading, Writing, Grammar, Vocabulary	Level 9-10	Free	★★★★★ 88
70	PC Fast Type (nmisc19.exe)	DOS	Typing	Multi-level, ESL	30US	★★★★ 75
71	PC Dictionary (dic32.exe)	Win 3.1	Vocabulary, Spelling	Multi-level	16	★★★★★ 88
72	Perfect Typing (nmisc39.exe)	DOS	Typing	Multi-level	Free	★★★★ 75
73	Planet Math (planet45.exe)	Win 3.1	Math	Multi level	19US	★★★★ 71
74	Practice Your English (PYS Practice Your English.sea)	Mac	Grammar, Reading	Levels 1-4 and 5-8, ESL	Free	★★★★ 75
75	Primary Learning (primlg31.exe)	Win 95	Math, Spelling, Vocabulary, Other	Multi-level	14.95	★★★★★ 100
76	Prime Time Math (pinetime.exe)	win 95	Math	Levels 5-8, 9-10 and 10-12	19.99 US	★★★★ 83
77	Puzzle (puzzle.exe)	Win 95	Reading, Vocabulary	Level 1-4, ESL	16US	★★★ 59
78	Ray's Number Games (numgam11.exe)	Win 3.1	Math	Multi-level	18 US	★★★ 68
79	Ray's Spelling and Word Games (rayssple.exe)	Win 95	Spelling, Vocabulary, Grammar	Levels 1-4, ESL	20US	★★★★ 84
80	Real World Reading Skills (realwrld.exe)	win 95	Vocabulary, Reading, Writing, Spelling, Grammar	Level 9-10	99	★★★★★ 100

	<b>Title (file name)</b>	<b>OS</b>	<b>Content</b>	<b>Skill Level</b>	<b>Cost</b>	<b>Rating in %</b>
81	Roxie's Reading Fish (rreadfb20.exe)	win 95	Reading, Writing, Listening, Spelling, Grammar	Level 1-4, ESL	24.95	*** 54
82	School Mom Plus (nmisc30.exe)	DOS	Math, Spelling, Grammar, Reading, Vocabulary, other	Multi level and ESL	10	***** 71
83	Show and Spell (nspell06.exe)	DOS	Spelling	Level 1-4, ESL	11.95 US	***** 91
84	Skill Abilities (nread10.exe)	DOS	Reading, Spelling Vocabulary	Multi-level	Free	*** 56
85	Snowman (snowmn20.exe )	Win 3.1	Spelling, vocabulary	Levels 1-4 and 5-8, ESL	20	***** 71
86	Spelling Beez (spebee10.exe)	Win 3.1	Reading, Listening, Spelling	Levels 1-4 and 5-8, ESL	Free	***** 76
87	Spelling Games (splgam40.exe)	win 95	Spelling	Levels 1-4 and 5-8	14.95 US	***** 90
88	Spiko and the Math Masters (spiko01.exe)	win 95	Math	Levels 1-4 and 5-8	20US	***** 100
89	Tablewiz (tw32v2.exe)	win 95	Math	Level 1-4	19.95 US	***** 100
90	Take a Break (CALL- Take A Break.sea)	Mac	Spelling	Level 1-4, ESL	Free	*** 67
91	Touch Typing (tchtyp.exe)	win 95	Typing	Multi-level, ESL	39US	***** 100
92	Weekly Speller (WSpell13.exe) (WS32_17.exe)	win 3.1	Reading, Writing, Listening, Spelling, Vocabulary, Grammar	Levels 1-4, 5-8 and 9- 10	9.95U S	***** 81
93	Winmath (wnmzth11.exe)	Win 3.1	Math	Levels 1-4 and 5-8	15	***** 85
94	Word Blast (wdblst10.exe)	win 95	Reading, Spelling, Vocabulary	Levels 1-4 and 5-8, ESL	10	***** 100
95	Word Demons (wrddem.exe, nread11.exe )	DOS	Spelling, Reading, Grammar	Multi-level, ESL	134	***** 75

	<b>Title (file name)</b>	<b>OS</b>	<b>Content</b>	<b>Skill Level</b>	<b>Cost</b>	<b>Rating in %</b>
96	Word Find (wordfind.exe)	Win95, Mac	Spelling, Vocabulary	Multi-level, ESL	10US	***** 100
97	Word Gallery (nmisc46.exe)	DOS	Spelling, Vocabulary	Level 1-4, ESL	15	***** 83
98	Word Search Factory (wsfl100.exe)	win 95	Reading, Spelling Grammar, Vocabulary	Multi-level. ESL	Free	***** 88
99	Word Search for Windows (mypwr.exe)	Win 3.1	Spelling, Vocabulary	Levels 5-8, 9-10 and 10-12, ESL	24.95	*** 50
100	Word Search Rampage (wwsrch30.exe, wws9530.exe)	Win 3.1	Reading, Spelling & Vocabulary	Levels 5-8, 9-10 and 10-12, ESL	21	***** 88
101	Word Wrestle (wrw9511.exe, wordw110.exe)	Win 3.1	Spelling, Vocabulary, Grammar	Level 5-8, Multi-level	15US	*** 54
102	Word-A-Day (word95.exe)	win 95	Vocabulary	Multi-level	25	***** 97
103	Write all about it (writeall.exe)	Win 3.1	Writing	Levels 5-8, 9-10 and 10-12	19.95	***** 87
104	Write it Right (wirreg20.exe)	Win 3.1	Writing, Reading Grammar	Multi-level, ESL	79	*** 50
105	Writing About Reading (wrtrd812.exe)	win 95	Reading, Writing, Grammar	Levels 5-8, 9-10 and 10-12	129	***** 80
106	Writing Demons (wtgdem.exe)	Win 3.1	Reading, Writing, Vocabulary, Grammar	Levels 5-8 and 9-10, ESL	84	***** 80
107	Writing Style Demons (wrsdem.exe)	Win 3.1	Reading, Writing, Vocabulary	Level 5-8 and 9-10, ESL	27	***** 75

## 6.0 PROCESS OUTCOMES

During the software evaluation processes in the various centres, learners were observed to have developed a variety of skills. These included literacy skills and knowledge, interpersonal skills, and other personal enhancements.

### 6.1 Learner Growth

Project participants learned from the software they were evaluating; further, they learned to assess learning materials. Thus they developed both cognitively and metacognitively. Learners sometimes had to learn to be critical of the resources they were using, overcoming an initial reluctance to make negative comments. This knowledge and the metacognitive development demanded of the evaluators were seen as extremely valuable by all involved in the project.

Some learners who experienced difficulty with pen and pencil activities found the computer activities greatly facilitated their learning. Technology helps overcome some physical challenges and disabilities and provides opportunities for learners with dyslexia. Sometimes negative learning and school memories were replaced with more positive experiences in a computer lab.

English second/another language learners enhanced their English speaking skills during the project, both from the software and the process of evaluating software, filling out evaluation forms, and communicating with other evaluators and with facilitators.

Project participants increased their problem solving abilities doing the assessment activities, using the software and troubleshooting the glitches, and playing and winning the games that are often part of learning software.

Another skill learned was record-keeping.

### 6.2 Technological Literacy

Software evaluators acquired technological literacy. They learned to install and use a variety of computer software, to troubleshoot the software's quirks, and to adapt to many different applications. Keyboarding speed and facility increased dramatically in some cases.

In addition, project participants learned computer terms and technological jargon; thus they entered a different, more privileged discourse.

### 6.3 Learner Pride

The software evaluation process was recognized as an empowering process for the learners. They felt important and fulfilled by their role in the project, especially during the pilot phase of the project. During the evaluation phase, the work became more tedious and less exciting to some of the project participants. Others continued to be

extremely motivated by the evaluation tasks and remained dedicated to the project. Many participants felt important because of the national scope of the project; they were aware of the trust and significance implicit in being the only provincial centre and one of only six centres engaged nationally.

Project participants were very pleased to see themselves as technology users and learners rather than as adult literacy learners, the latter having a deficit connotation that technology learning does not.

#### **6.4 Self Confidence and Self Efficacy**

Through the process of evaluating software, learners gained self-confidence. They worked confidently with the software and conscientiously evaluated it. They took responsibility for the project and increased their independence as learners. Participants were required to become experts and subsequently teachers as they introduced others to the software they evaluated. They recommended appropriate software to fellow learners and to children. They demonstrated programs for sponsors, family members, and others.

Some individuals' sense of value or worth was restored or fostered by the project. One learner whose command of English is poor but who was a well-respected teacher in another country provides a good example of a person who profited in this way from the project.

#### **6.5 Inter-Personal Relationships**

Working together on the evaluation project, learners became cognizant of their responsibilities to other learners; they realized that their decisions were being compiled with those of other evaluators from centres across the country and thus they needed to be diligent and accurate in their evaluating. They also understood their evaluations would be used by learners in centres across the country to make decisions about learning materials they would use. They tried to be more critical of the software and as honest as possible in their evaluations.

Project participants also learned to work collaboratively; they coordinated their own activities, shared software and computers, and engaged in peer tutoring activities. The project partners from the participating schools across Canada were able to meet, and some will continue professional or personal relationships in the future.

#### **6.6 Tutors and Facilitators**

A variety of experiences characterized the attitudes and experiences of the project facilitators. Tutors were challenged to deviate from their usual routines and activities. Their own workloads and class agendas were disrupted, and they were forced to accept different roles. Often these included compiling data (responses on the evaluation sheets) and other less-than-interesting tasks.

Tutors were often called upon to troubleshoot technical problems; thus they needed considerable technological skills to assist in the project. Not all tutors possessed the requisite skills.

### **6.7 Hardware and Software**

Adult learning centres often only have access to second-hand hardware, donated when businesses upgrade. Similarly, the programs evaluated in this project were past their prime, and thus were comparatively slow to load and respond. Other frustrations included having programs which didn't close automatically, and having software on a CD when the computer would only take a floppy.

It should be noted that not all programs were criticized; many were much enjoyed by the learners and recognized as providing quality educational experiences. Sometimes software labelled "childish" by tutors were enjoyed by the adults. Participants were often engaged and enthusiastic.

Tutors and learners did not always agree on the usefulness or appropriateness of the programs. It is thus important to remember that learners, particularly adults, can make judgements about what resources they should use.

The dynamic and ephemeral nature of the Internet and computer software was well illustrated in this project. Sometimes programs became outdated, other times freeware and shareware were developed into successful commercial products. Occasionally, the demo version was evaluated when the full version was not available. Often creators changed addresses, e-mail servers, or disappeared altogether. Tracking down licences was a challenging process; many programs could not be included in the resource CD because the license could not be secured. Should such an evaluation project be considered again, finding licenses should probably be the first step, not one begun later in the evaluation process.

### **6.8 Recognition**

Project participants' contributions were recognized in various ways. Some centres issued certificates; others provided reference letters detailing the involvement. Some centres held celebratory events, offering pizza and other tokens of appreciation.

Other professionals (such as social services personnel and employers) recognized the expertise acquired by the participants. One adult learner acquired employment as a result.

### **6.9 Bias**

The question relating to "bias" on the evaluation form (Appendix C) was confusing to evaluators. One stated, "The program has no gender bias." The other stated "The program has no ethnic or racial bias." Evaluators could not decide if they should say "yes", confirming there was no bias, or "No", meaning there was no bias. Although

these questions proved difficult to answer, they did raise awareness of such issues in software, and evaluators tended to comment if any negative images were presented. For example, a program that dropped a bomb on incorrect answers drew comments that this was inappropriately glorifying war or violence. Similarly, the program *Snowman* was seen as a low violence alternative to *Hangman*; users could chose to melt the snowman or have apples fall from a tree rather than hang a person to win the game.

## 7.0 CONCLUSIONS AND RECOMMENDATIONS

Based on this evaluation experience, the following conclusions can be drawn:

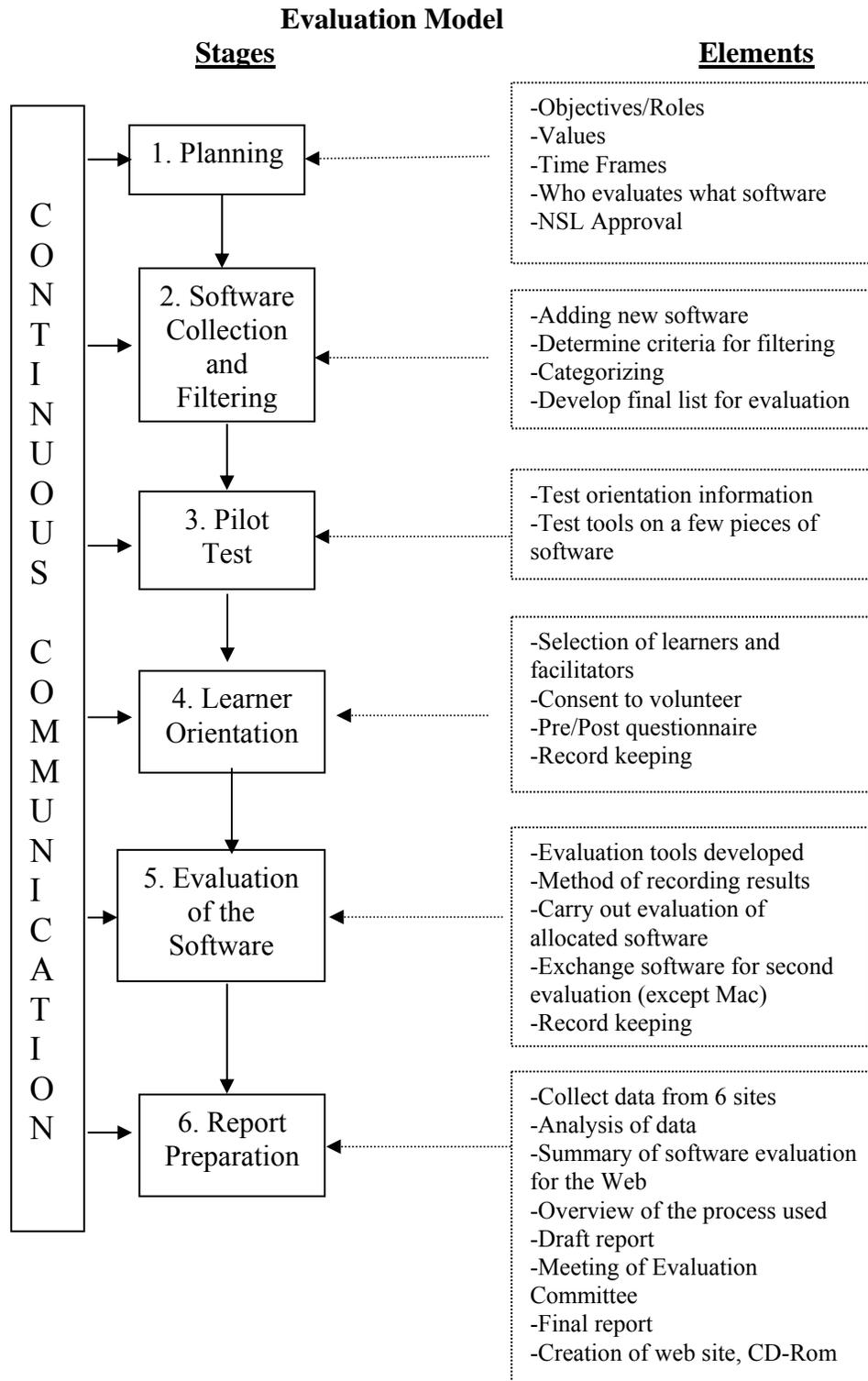
1. Excellent freeware and shareware programs are available for use by adult and K-12 learners.
2. There are many benefits to involving adult learners in the evaluation of software resources.

Recommendations for future similar projects can also be made:

1. Ensure that the evaluators' time is spent on evaluations, not on peripheral tasks such as licensing or collating.
2. Plan collation procedures, as well as file-naming and other protocols, early and in great detail.
3. Evaluate only software current enough that the educational value is not compromised by problems with installation and navigability.
4. Involve a wide variety of learners in the evaluation process.
5. Plan for some system of evaluator recognition, including intrinsic and extrinsic motivating factors. Learner pride was often as effective as pizza parties; public demonstrations can be as valued as gift certificates.
6. Arrange an early meeting to assess the project's processes, revitalize coordinators' enthusiasm, confirm and standardize evaluation procedures, and cue better observation and data collection.
7. To ensure that participants have sufficient time and computer access to finish the project, match the project's time frame to the course cycle of the learners and to the lesson plan of the instructor.

**APPENDIX A**

**SOFTWARE EVALUATION PROJECT WORK PLAN**



**Work Plan for the Committee**

## APPENDIX A

WHAT HAS TO BE DONE	BY WHOM	BY WHEN
1. E-mail all draft evaluation forms to committee members	Charles	Done
2. Finalize review of the student questionnaires	Yvonne	May 10/02
3. Finalize the facilitator questionnaires	Yvonne	May 10/02
4. Finalize the wording of the information package	Charles	May 10/02
5. Pre/Post test finalized	Sylvia	May 10/02
6. Feedback to Andrea on Pilot Tests at 6 Centres	All Centres	June 14/02
7. Changes to material based on feedback	Andrea	June 21/02
8. Additions to learner orientation based on pilot and feedback	Andrea	July 31/02
9. Prepare data collection format for NALD	Charles	July 31/02
10. Consent form finalized (with preliminary outline for the pilot tests in June/02)	Roberta	Aug. 31/02
11. Let Yvonne know which software you will use in the Pilot	All Centres	June 30/02
12. Draft an evaluation form "for teacher software"	April	May 18/02

### Gantt Chart

Milestones	2002				2003			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<b>1.Planning</b>		→						
<b>2. Software Collecting and Filtering</b>		→						
<b>3.Pilot Test</b>		→						
<b>4.Learner Orientation</b>		→						
<b>5.Software Evaluation # 1 # 2</b>				→	→			
<b>6.Report Preparation</b>						→	→	→
<b>Meetings of Committee</b>		—						—

## **APPENDIX B**

### **BACKGROUND ON SAMARITAN HOUSE EVALUATION PROJECT**

Samaritan House Training Centre (SHTC), like many other literacy programs, works with learners who are at a variety of literacy levels. Finding a tool that challenges all levels equally can be difficult, yet there is some magical ingredient in technology that can often meet this challenge.

In 1996, with funding from the National Literacy Secretariat, SHTC embarked on a software evaluation project. This project incorporated adult learners as its primary researchers. Learners evaluated freeware and shareware for suitability in an adult learning environment. It provided all learners, despite their level of literacy, with a challenging learning opportunity, an opportunity to learn and improve their problem solving, critical thinking, reading, computer skills and more, in an inspiring way. This project can be viewed at [www.nald.ca/shouse/sam.htm](http://www.nald.ca/shouse/sam.htm).

In the Samaritan House project Charles Ramsey, Executive Director of the National Adult Literacy Database, provided assistance with many of the technical difficulties. Charles also connected SHTC to Ed Lowery who was able to provide a long list of freeware and shareware that had already been gathered and categorized, and screened for its ability to be installed on older computers, but never evaluated by learners themselves.

Shareware is software that is made available to the public for a free trial. But, shareware is not free. Authors ask that if you like their product, that you send the author a required registration fee. Freeware, on the other hand, is free. Both are readily available on a variety of Internet sites, but there is a long list of hurdles that must be jumped before a program can successfully run on a computer. One of the greatest hurdles comes from the amount of time that must be invested in taking a program from a downloaded file to operating successfully on a computer. Because of technical incompatibilities, and other difficulties some programs never make it to the trial phase. Ed Lowery's list was invaluable as it saved hundreds of hours of work.

In order to accomplish the software evaluation, learners first had to become familiar with basic computer skills, as well as word processing and spreadsheet applications. Evaluation of the software required the learners to read and follow the instructions. In the case of learners with low literacy levels, tutors would read and explain the instructions to them. Learners worked through each software program at least twice, and then provided a demonstration of the software to their classmates. The opportunity to reverse the traditional classroom role -- from student as learner and the one being evaluated to the student as evaluator and teacher -- was enormously gratifying and esteem-building.

The entire research process was very time consuming, especially the time it took to provide participants (learners) with the computer skills required. This left insufficient time to evaluate more than a few of the 100 plus programs found in the research or provided by Ed Lowery. Fortunately, Charles Ramsey recognized the value of the process and worked to see it expanded - hence, "The Evaluation of Educational Freeware and Shareware Software Programs as Effective Resources in Adult Literacy Training Programs" was born.

## APPENDIX C

### STUDENT EVALUATION FORM

Name: \_\_\_\_\_

Name of Software: \_\_\_\_\_

This is my  1<sup>st</sup>  2<sup>nd</sup>  3<sup>rd</sup> time evaluating this software.

**Yes      No      Somewhat      N/A**

#### **PRESENTATION**

1. Graphics (pictures) are helpful.
2. The screen is easy to understand.
3. There is helpful colour.
4. There is helpful sound.
5. I can change the sound.
6. I can follow the menu.
7. Navigating (moving) within software is easy.
8. HELP buttons are easy to find and use.
9. Program runs at a comfortable speed.

#### **EASE OF USE**

1. It is easy to start the program.
2. It is easy to use the program.
3. It is easy to read the text.
4. It is easy to follow instructions.
5. It is easy to control the program speed.
6. It is easy to return to my work where I stopped.
7. It is easy to exit the program.

#### **LEARNING**

1. The content is interesting.
2. The content helps me learn new things.
3. The content makes me want to continue learning.
4. The program tests my learning.
5. The program has easy and difficult levels.
6. The program keeps a record of progress.
7. Progress results are easy to understand.
8. The program gives enough practice.
9. Feedback is positive and polite.
10. The program helps me correct wrong answers.
11. The program lets me type in my own words.

#### **CONTENT**

1. The program has no gender bias.
2. The program has no ethnic or racial bias.

#### **STUDENT RECOMMENDATIONS**

1. The program is helpful for adult learners.
2. I would recommend this program to other adults.

Comments:

**APPENDIX D**

**FACILITATOR EVALUATION FORM**

Name: \_\_\_\_\_ Software: \_\_\_\_\_

	Yes	Somewhat	No
<b>Facilitator Comments</b>			
Program installs automatically			
Program installs easily			
Install requires additional files or adjustments to computer.			
Minimal teacher instruction is required by program users.			
Authoring (adding material to program) can be done			
Software is suitable for adults			
Content is accurate			
Content is free of bias			
Program engages participants			
Instructors find the program useful			
This software enhances learning			

**Appropriate Skill For Approximate Level**

Level 1-4		Level 10-12	
Level 5-8		Multi-level	
Level 9-10		ESL	

**Content - The program has sections to teach:**

- Reading       Writing       Speaking       Listening       Spelling  
 Typing       Grammar       Math       Phonics       Vocabulary  
 Computer       Other

Skills \_\_\_\_\_

**System Requirements (circle or complete)**

Monitor type required	VGA Colour, Monochrome, EGA/CGA
RAM - minimum requirement	
Operating system	DOS    Windows 3.1    Windows 95+
Amount of drive space needed	Small    Medium    Large
Processor	286    386    486    Pentium
Requires sound card	Yes    No
Requires video card	Yes    No
Freeware	Yes    No
Shareware	Yes    No

Comments:

## APPENDIX E

### LETTER ABOUT INFORMED CONSENT

Dear Software Evaluators:

Thank you for agreeing to participate in our software evaluation project. In this project, \_\_\_\_\_ Centre is working with others centers across Canada and with the National Adult Literacy Database (NALD).

The project goals are:

1. To evaluate existing software (freeware, shareware, and Internet resources) from a learner's opinion;
2. To publish the evaluations on the NALD Website for others to use.

During this project we are getting information about your feelings about software you are using. Your evaluation, which may be on the form provided and your written comments, will be published on the Internet along with other evaluators' comments. We will not charge for this service (or make any money from the project).

You may choose to publish your real name on the Internet with your comments, or you may not agree to publish your real name. You may choose a fake name for this purpose.

You may change your evaluation or comments at any time by informing the project co-ordinator, \_\_\_\_\_. You may withdraw from this project at any time (and continue to use the computers and be part of other Centre projects). In addition, you may refuse to answer any questions on the form.

We need your written consent to be an evaluator in this project. Please sign the consent form on page 2 and give it to \_\_\_\_\_. Please keep this letter as a reminder of our agreement.

Thank you for your being in our project.

Sincerely,

\_\_\_\_\_  
Centre Manager

\_\_\_\_\_  
Other

\_\_\_\_\_  
Date

**APPENDIX F**

**INFORMED CONSENT SIGNATURE FORM FOR PROJECT PARTICIPATION**

**Software Evaluation Project**

**Project Facilitators:** \_\_\_\_\_ and \_\_\_\_\_

I agree to join in the Software Evaluation Project. I know my evaluation forms and my comments about the software will be put on the Internet. I know that I can change my evaluation and comments if I wish.

On the internet you can use one of these:

my real name.

this fake name \_\_\_\_\_.

or make up a fake name for me.

The project and research have been explained to me and I had a chance to ask questions, and all my questions have been answered to my satisfaction.

By signing below, I agree to join in the software evaluation project as described above.

Date \_\_\_\_\_ Participant's Signature \_\_\_\_\_

## **APPENDIX G**

### **PILOT PROJECT ORIENTATION OUTLINE**

#### **Purposes:**

To test and give feedback

- on the evaluation forms
- on the orientation process

#### **Participants**

Minimum of 2-3 learners and a facilitator at each site

Suggested background

- basic computer skills
- an interest in the project
- possibility of participating in the project

#### **Resources**

Orientation package

Pilot feedback questions for orientation process

Software \*

Data collection form (evaluation form)

Pilot feedback questions for data collection form

\* Use a short complete freeware program from the NALD collection. Keep the evaluation information to include with data collection.

#### **Overview**

The pilot process will be informal. The facilitator will provide an orientation based on the orientation process developed for the project and will introduce use of the software program. Each learner will then test the data collection forms with one piece of software. The facilitator will document learner responses to the orientation and to the data collection form. The facilitator will summarize responses to feedback questions and send the summaries to Andrea Pheasey by June 21<sup>st</sup>. E-mail: [andrea\\_pheasey@aaal.ab.ca](mailto:andrea_pheasey@aaal.ab.ca)

#### **Time frame**

Orientation (preparation and delivery)	2 hours
Orientation to software program	1 hour
Using the software	1-2 hours per participant
Using data collection form / software	.5 hours per participant
Reporting	2 hours
Total	8 hours

## **APPENDIX G**

### **Orientation feedback questions**

Please refer to the orientation process that was provided.

Note which parts of the orientation you used.

Note additions or changes you made.

Note participant responses during the orientation:

- What parts were understood?
- What parts did you have to clarify?
- What topics or questions came up that were not addressed in the orientation?

How long did the orientation take?

### **Evaluation form – feedback questions**

#### **Learner Form**

After the learner has used the software, he/ she will complete an evaluation form. The facilitator will observe and interact with the learner. Use these questions as a guide to note learner responses to the evaluation form.

#### ***Layout / appearance***

Note any difficulty regarding print size, font, format / flow.

#### ***Directions for using the form***

Did learner understand the directions? Note any questions that were not clear and suggest how to reword them.

#### ***Statements or questions on the form***

Did learner understand statements / questions? Note any statements that were not clear and suggest how to reword them.

Note any statements or questions that were redundant or not relevant.

#### ***Vocabulary***

Was the non-technical vocabulary appropriate / familiar? Note any unfamiliar words and suggest alternatives.

Note any technical terms that need to be explained.

#### ***Time***

How long did it take the learner to complete the data collection form?

#### ***Engagement***

Comment on the learner's level of engagement while completing the form. (Did the activity maintain interest and motivation? )

Note any evaluative comments that the learner made (about the form or the software) that were not covered in the data collection form.

#### **Additional comments**

## **APPENDIX H**

### **REPORT OF THE 'PILOT' PHASE OF THE PROJECT**

#### **Preamble**

The purpose of the pilot phase of this project was to test the orientation process developed for the project and the data collection forms with one piece of software. The facilitator was to record learner responses to the orientation and the forms. A summary of these responses was to be forwarded to me and I was to write a final report stating the changes needed to both the orientation and the forms.

I will break responses into four subheadings:

1. Learner response to the evaluation form.
2. Learner feedback to the project in general. This will cover the orientation process.
3. Facilitator feedback to facilitator evaluation form.
4. Facilitator feedback on the orientation process.

#### **1. Learner response to the learner Evaluation Form**

##### **Specific changes needed:**

- Reword the first line to "Number of times I have evaluated this software."
- Colour added to titles on the page (i.e. PRESENTATION, EASE OF USE, etc.)
- More white space on the page.
- Font enlarged.
- Shade in the boxes instead of check boxes to eliminate confusion.
- Under "**LEARNING**"
  - a. # 2 "helped" should read "helps"
  - b. # 3 replace "motivates me" with "makes me want"
  - c. delete # 9
  - d. #10 replace the word "dignified" with "polite"
  - e. #12 replace the "put" with "type"
- Under "**STUDENT RECOMMENDATIONS**"
  - a. #1 reword "The program is helpful for adult learners."
  - b. #2 reword "I would recommend this program to other adults."

##### **General comments on the evaluation form:**

- The length of the form was good.
- Wording was very difficult for beginning readers.
- New computer users did not understand what the "Help" button was.
- Some learners had trouble with concept of "gender and ethnic or racial bias".
- The word "graphics" was difficult for beginning readers.
- Learners generally like the room for comments about the software they were evaluating.

#### **2. Learner feedback to the project in general.**

- Learners wanted orientation to include introduction to computer skills.

## **APPENDIX H**

- Learners welcomed the opportunity to learn more about and do more work on the computers.
- Some learners expressed concern about the amount of time the Evaluation Project would take. They were apprehensive about "more work."
- Learners want to choose the software they will evaluate.
- Learners predicted their computer skills would increase.
- Learners were interested in the project and using the technology in the classroom.
- Learners had trouble opening the software alone. One facilitator respondent sent along detailed instructions on how to install the software.

### **3. Facilitator feedback on the facilitator evaluation form.**

- Provide more white space on the form to make it easier to read.
- Shade in the header lines so respondent doesn't get checkmarks in the wrong place.
- Under "Instructors find the program useful" add "for drill and practice / introduction of new concepts."
- More definition of what "Level" means. Does level mean "grade"?

### **4. Facilitator feedback on the orientation process and general comments.**

- "An orientation package will be very useful to clarify learner's questions/concerns and to better explain the overall project. These packages will give the project a more formal appearance and should reassure learners they are participants in something useful and important."
- "Felt the initial time with each student will take a little longer than we may have anticipated."
- Learners were overall eager to participate and facilitators were pleased with the project.
- Most facilitators expressed concern about difficulties opening and starting the software.
- The Edmonton site evaluated PC software in the pilot because we could not open the Mac software.
- Facilitators did not refer to which parts of the orientation process they used but respondents were generally happy with the orientation.

Bobbi Hammett asked in June "if the summaries and comments would be posted on the Web" either anonymously or attributed. I see no problem doing that other than a time restraint.

Facilitators who took part in this pilot stated clearly changes that need to be made on the student evaluation form. These are not difficult and could be done at each site. As far as the orientation process is concerned all we need now are the "packages" and we could get underway (according to our timeline) in September.

## APPENDIX I

### ORIGINAL SOFTWARE LIST

1	123 Talk	DOS	Children learn numbers/counting
2	123Learn	Win 3.1	A fun learning "tool", nothing more
3	123-TALK	Win 3.1	Talking educational program
4	<b>1st Class GradeBook</b>	Win 3.1	Teacher's Grade Book package
5	20-20 Word Processor	DOS	A large-type word processor
6	A2Z Hangman	Win 95	Hangman: Input words, play, and learn
7	A2Z Hangman	Win 3.1	Helps improve vocabulary and spelling
8	Abacus	Win 3.1	Math tutor
9	ABC Fun Keys	DOS	Preschool edu-games & music
10	ABC Talk	DOS	Teaches children to talk/ read/alphabet/spell
11	Able Series	DOS	Able: Series of nine educational programs
12	<b>ACCU-Reading</b>	Win 3.1	Promotes mastery of accurate reading.
13	<b>AceReader</b>	Win 95	Speed reading self improvement program
14	<b>AceReader</b>	Mac	Learn to read faster on and off the computer
15	Acrostix	DOS	Quotations - fill in blanks
16	Action Education - Vol II	DOS	Educational math game teaches times tables
17	Add A Lot	DOS	Educational math game for 6 to 12 year olds
18	Adobe Acrobat Reader	Win 3.1	Freeware program for reading for PDF files
19	Adobe Acrobat Reader	Mac	Reader for PDF files
20	AECT Tutor	Win 3.1	Teaches English language (advanced)
21	<b>Alphabet</b>	Mac	Learn the alphabet in a game format
22	AlphaTalk	Mac	Teaches the alphabet
23	Animal Math	DOS	Number games for children
24	Animated Addition & Sub.	DOS	Addition & subtraction; grades 1-4; Part 1
25	Animated Alphabet	DOS	Animated alphabet for pre-school to 1st grader
26	Animated Beginning Typing	Win 3.1	For beginning typists of all ages
27	Animated Clock	DOS	Teach children to tell time
28	Animated Math	DOS	Counting/addition/subtraction
29	Animated Memory Game	DOS	Aids memory skills
30	Animated Multiplication & Division	DOS	Multiplication and division game
31	Animated Phonics	Win 3.1	Phonetic sounds for letters and words
32	Animated 'Subtraction	DOS	Addition & subtraction grades 1-4; Part 2
33	Animated Words	DOS	Children's educational game
34	Arith-M-Attack	Win 3.1	Practice basic math facts in game format
35	ArithmeTick-Tack-Toe	Win 3.1	Educational math game
36	<b>Arithmeticus</b>	Mac	Mental arithmetic; students and teachers
37	Auto-Flash-Card	Win 3.1	Flashcards - basic learning tool [Freeware]
38	Babble	DOS	Creative writer's tool/text mixing studio
39	Bad-Libs	DOS	Make three funny stories
40	Bardusa	Win 95	Solve letter problems (Animated)
41	<b>Basic Math for Windows</b>	Win 3.1	First math course for all other math courses
42	BasicFacts Maker II 3.2	Mac	Generates student math worksheets
43	<b>Be Fruitful &amp; Multiply 1.5.1</b>	Mac	Illustrates and drills multiplication tables
44	Beat the Bomb	DOS	Animated math game (Freeware)
45	<b>Big Math Attack</b>	Win 3.1	Arcade game tests math, spell & typing skills
46	<b>Big Math Attack</b>	DOS	Arcade game tests math, spell & typing skills
47	Billy Bear - Day Dreams	DOS	Children's interactive storybook
48	Binders	Win 95	Educational software for children

**APPENDIX J**

**BUDGET**

**The Evaluation of Educational Freeware and Shareware Programs**

**File Number: 21033**

**April 1, 2002 to March 31, 2004**

<b>Expense Categories</b>	<b>Commission's Contribution Amendment # 1</b>	<b>Project Total Expenses</b>	<b>Balance</b>
Direct Salaries and Benefits	106,000	106,476	-476
Consultant Fees	5,000	5,000	0
Registration of Freeware & Shareware Use	13,500	3,470	10,030
Evaluation	7,500	5,993	1,507
Others:			
Meetings	30,000	31,031	-1,031
Technical Support	5,000	5,000	0
<hr/>			
<b>TOTAL</b>	<b>167,000</b>	<b>156,970</b>	<b>10,030</b>

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49	Bingo Maker	Win 95	Produces practice cards - demo only
50	<b>Bingo Mathness</b>	Win 3.1	Practice math skills
51	Blackboard Typing Tutor	Win 95	Typing tutor
52	Blaster Maths	DOS	Simple math drills
53	<b>Blastwords</b>	Win 95	Speed learning words - memorization
54	Bogest	Win 3.1	Create words from groups of letters (Boggle)
55	Book	DOS	Assists students composing book reports
56	Brain Builder - Math Edition	Win 95	Math and problem solving
57	Break the Wall	Win 95	Fun math basic skills game w/ progress charts
58	<b>Break the Wall</b>	Win 3.1	Provides basic math skills practice
59	CalcuMemory	Win 3.1	Simple math memory game
60	<b>CALL:ABC's</b>	Mac	Learn how to alphabetize words and use guide words Helps adult students learn both basic and advanced addition
61	<b>CALL:Addition Drill</b>	Mac	
62	CALL:Budgeting Your Bucks	Mac	Provides basic information on managing money
63	<b>CALL:Capital Idea</b>	Mac	Learn the correct usage of capital letters
64	CALL:Clip Art Organizer	Mac	Helps make use of the many clip art files available
65	CALL:Cloze Encounters	Mac	A tool to help create customized cloze exercises
66	<b>CALL:Division Dozer</b>	Mac	Learn how to solve long division problems
67	<b>CALL:Focus on New Brunswick</b>	Mac	Help learn basic concepts about the world people live in
68	<b>CALL:Grammar Games</b>	Mac	Learn about sentence subjects and predicates
69	CALL:Health Quest	Mac	Provides nutritional information for mature students
70	<b>CALL:Magic of Metric</b>	Mac	Helps adult students master the metric system
71	CALL:Mighty Map	Mac	Help learn basic map skills
72	CALL:Path to Perfect Punctuation	Mac	Learn the correct usage of the various punctuation marks
73	<b>CALL:Take a Break</b>	Mac	Learn the ten basic rules of syllabication
74	CALL:The Great N.B.Chase	Mac	Reinforce map skills and knowledge of New Brunswick
75	CALL:The Percent Event	Mac	Learn how to work with percents
76	CALL:Worksheet Wizard	Mac	Generate worksheets and tests in any subject area
77	CALL:Yearbook	Mac	Create a computerized class yearbook
78	<b>Camping Story</b>	Mac	Interactive & personalized short story for young readers
79	Capital Skills	DOS	13-lesson course on capitalization
80	<b>Chalkboard Math</b>	Win 3.1	Math tutor
81	<b>Choices</b>	Win 3.1	Create/present multiple choice quizzes
82	Clown Spell	Win 3.1	Spelling program for children and adults
83	<b>Clozemaker</b>	Win 3.1	Create/present gap-fill exercises
84	Copy Exercise	Win 3.1	Teaches four basic sentence types
85	<b>Create A Quiz</b>	Win 3.1	Generate on-screen interactive quizzes
86	Cross	Win 3.1	Generates word search programs
87	Crossword Challenge	DOS	Increase your vocabulary
88	Crossword Express	Win 3.1	Puzzle creator/player program
89	Crossword Power	DOS	Creates crossword puzzles
90	Cultural Awareness	DOS	Educational game for cultural literacy
91	Dad's Choice	DOS	Teaches math in a non-threatening way
92	<b>Developing Critical Thinking</b>	Win 3.1	Provides training in language usage
93	<b>Diagnostic Grammar</b>	Win 3.1	Demo - diagnostic/selects lessons
94	<b>Diagnostic Reading</b>	Win 3.1	Demo - diagnostic/selects lessons
95	Dino Match	Win 3.1	Animated memory building game
96	Dino Numbers	Win 3.1	Animated arithmetic game
97	Dino Spell	Win 3.1	Animated spelling game

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98	Drill 12	Mac	Drill a list of words for language training
99	Early Learning	Win 3.1	Ten educational programs for children 3-7
100	Easy Math	Win 3.1	Tool for learning math skills
101	Educatabase	DOS	Multiple choice testing system. Inc. sample tests
102	Edu-Drill	DOS	Develops elementary skills in math and spelling
103	<b>Edwin Educational Software</b>	Win 3.1	Basic addition and subtraction
104	Elephant's Memory	Mac	Electronic memory training system
105	<b>English 201 - Homonyms</b>	Win 95	Teaches homonyms
106	<b>English 201 - Homonyms</b>	Win 3.1	Tutorial - Homonyms
107	<b>English 202 - Antonyms</b>	Win 95	Definitions and use of antonyms
108	<b>English 202 - Antonyms</b>	Win 3.1	Tutorial - Antonyms
109	<b>English 203 - Synonyms</b>	Win 95	Definitions and use of synonyms in sentences
110	<b>English 203 - Synonyms</b>	Win 3.1	Tutorial - Synonyms
111	English 204 - Syllables	Win 95	Teaches syllables
112	English 204 - Syllables	Win 3.1	Tutorial - Syllables
113	English 205 - Prefix & Suffix	Win 95	Teaches prefixes and suffixes
114	English 205 - Prefix & Suffix	Win 3.1	Tutorial - Prefix and Suffix
115	English 206 - Contractions	Win 95	Definitions and use of contractions
116	English 206 - Contractions	Win 3.1	Tutorial - Contractions
117	<b>English 207 - Possessives</b>	Win 95	Teaches possessives
118	<b>English 207 - Possessives</b>	Win 3.1	Tutorial - Possessives
119	English 208 - Subject & Predicate	Win 3.1	Tutorial - Subject and Predicate Part One
120	English 209 - Subject & Predicate	Win 95	Teaches subjects and predicates
121	English 209 - Subject & Predicate	Win 3.1	Tutorial - Subject and Predicate Part Two
122	<b>English 210 - Sentences</b>	Win 95	Teaches the four basic types of sentences
123	<b>English 211 - Sentences</b>	Win 95	Simple and compound sentences
124	<b>English 213 - Punctuation</b>	Win 95	Teaches the use of punctuation in sentences
125	English 214 - Quotation Marks	Win 95	Teaches the use of quotation marks
126	<b>English 215 - Nouns</b>	Win 95	Definitions and use of nouns in sentences
127	<b>English 217 - Pronouns</b>	Win 95	Teaches pronouns
128	<b>English 218 - Verbs</b>	Win 95	Teaches verbs
129	English 220 - Adjectives	Win 95	Definitions and use of adjectives
130	<b>English 222 -Conjunctions</b>	Win 95	Teaches conjunctions
131	<b>English 223 - Interjections</b>	Win 95	Teaches interjections
132	English 224 - Prepositions	Win 95	Teaches prepositions
133	English 225 - Vowels & Consonants	Win 95	Teaches vowels and consonants
134	English Language	DOS	Advanced English tutor
135	<b>ESL Demons (Demo)</b>	Win 3.1	ESL - English grammar, usage & spelling
136	<b>Europe!</b>	Win 3.1	Geography game
137	<b>Evidences</b>	DOS	Educational quiz game with editor
138	Examiner for Windows	Win 3.1	Multiple-choice exam generator
139	<b>EZSpell</b>	Win 3.1	Teach beginners to spell
140	<b>FasType</b>	Win 3.1	Typing tutorial program
141	Fat Art's Quizzer	DOS	Learn word definitions and phrases in quiz format
142	FishCard	Mac	Program that reviews electronic flash cards
143	FishCards	DOS	Flash card review
144	Flash Card 3.0	Win 95	Creates question/answer lists and flash cards
145	Flash Card Manager	Win 95	Organizes flash cards in categories
146	Flash Cards	Win 3.1	An aid in vocabulary memorization
147	<b>Flash Cards - Math</b>	Win 3.1	Math program for primary grades

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148	Flashcard Maker	Mac	Teach reading, vocabulary and phonics
149	Flashquiz	DOS	For games or learning
150	Flexi-Tutor Weekly Speller	DOS	Spelling lists in fill and flash formats
151	Fractions Made Easy	Win 95	Provides practice with fractions
152	Fun with Letters and Words	DOS	Educational game, ages 2 to 6
153	Fun With Phonics - Level 1	Win 3.1	First & last letters; vowels & letter match
154	Funnels	DOS	Math game
155	<b>Grammar Demons</b>	Win 3.1	Helps with troublesome points of grammar
156	Grammar Slammer	Win 3.1	Tutor for reviewing English grammar
157	<b>Hang-em</b>	Win 95	Hangman game with over 1000 built-in words
158	Hangman	Win 95	Hangman with an unusual hangman
159	Hangman for Students	DOS	Word lists divided by grade levels
160	Hangman Junior	Win 3.1	Targeted at 5 to 9 year olds
161	Hiding	Mac	Helps with recognition of letters, numbers and words.
162	HyperCard Player	Mac	Utility that allows you to view and use Hypercard stacks
163	IECT Tutor	Win 3.1	Teaches English language (Intermediate)
164	<b>Introduction To Basic Math</b>	DOS	Comprehensive treatment of the four math operations
165	JAWS - Keyboard Tutor	DOS	Keyboard tutor game for VGA no falling letters
166	<b>Jumble</b>	Win 3.1	Unscramble familiar catch-phrases
167	<b>Jurassic Spelling</b>	DOS	Teach spelling and other subjects
168	Kiddy Maths	Win 95	Children's math program
169	<b>Kids Math</b>	Win 95	Multiplication and division tutor
170	Know Your Stuff	DOS	Study any subject of your choice
171	Krysten Learns to Spell	Win 3.1	Graphic spelling game with three skill levels
172	Larry's Learning Letters	Win 3.1	Learn alphabet and numbers
173	Larry's Learning Math Machine	Win 3.1	Learning tool for mathematics
174	Lectra	Win 3.1	Develops reading, memory & vocabulary skills
175	Letter Drop	DOS	Word game similar to Hangman but with an airplane
176	<b>Letter Sounds</b>	Win 3.1	Makes connection between letters & sounds
177	Letterfall	DOS	Falling letters game, children's typing tutor
178	Licence Plate Math	Win 95	Virtually unlimited number of math puzzles
179	LiltMath	DOS	A game-like math drill for ages 6-12
180	Little Fingers Autoplayer	Mac	Program required to run Little Fingers Classroom series
181	Mac Libs 1.1	Mac	Helps with the learning of English grammar
182	MAC Typing Tutor	Mac	Full featured typing tutor; five different learning modules
183	<b>MacEmatics 2.1.5</b>	Mac	Comprehensive spelling program with voice capabilities
184	MacGrammar Tutor	Mac	Math drill program
185	<b>Mad Minute Math</b>	Win 3.1	Practice basic math functions
186	Make 24	Win 95	Challenging math game for ages 8 and above
187	<b>Master Spell 4.1.3</b>	Mac	Fact controlled addition & subtraction for special learners
188	MasterMind Typing	Win 3.1	Touch typing tutor
189	Mastery Learning Grammar	Win 95	Teaches and drills English grammar
190	Mastery Learning: Grammar	DOS	Teaches and drills English grammar
191	Math and Science	Win 3.1	Ten programs Grade 1 to High School
192	Math Assault I	DOS	Multimedia math game
193	Math Basics for Windows	Win 3.1	Ten programs Grade 1-6 teach basics
194	<b>Math Bee</b>	Win 95	MathBee for Windows 95
195	Math Bingo	Win 95	Penny Penguin's math bingo
196	Math Boat	DOS	Public Domain math quiz game: Add/Sub
197	Math Bomber	Mac	Math game for children with sounds, colours and photos

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198	Math Castle	DOS	Math-based adventure game
199	Math Challenge	DOS	Learn math tables
200	<b>Math Counts</b>	DOS	Math tutorial - Grades 3 & 4 level
201	Math Dash	Win 3.1	Teach math Pac-Man style (large-8.1Mgs)
202	Math Dittos	Win 3.1	Multiplication for special learners
203	Math Dittos 2	Win 3.1	Addition & subtraction for special learners
204	Math Dittos II	Mac	Math practice exercises for use with HyperCard
205	Math Flash Cards	Win 95	Small math quiz program
206	<b>Math Flight</b>	Win 95	Practice basic arithmetic
207	<b>Math Flight</b>	Win 3.1	Practice basic arithmetic - seven levels
208	Math Fun	DOS	Teaches basic math concepts to children
209	Math Made Easy	DOS	Math tutor, add/subtract/multiply/divide. EGA
210	Math Market	Mac	Practice math functions in a challenging way
211	Math Play	Win 3.1	Practice four math functions - Demo
212	Math Practice	DOS	Math practice (+-*/) for 1st thru 4th graders
213	Math Programs	DOS	High School level math review
214	Math Shop 1	DOS	Worksheet generator
215	<b>Math Skill Builders</b>	Win 95	Practice whole number arithmetic
216	Math Snatchers	DOS	Multimedia mathematics game
217	Math Stacks	Mac	Four math games with five levels
218	Math Stars 4.0	Mac	Practice multiplication tables and mental calculations
219	Math Strategies	Win 95	Teach elementary math in arcade game format
220	Math Test	DOS	Practice basic/adv. math problems with games
221	Math Tower	DOS	Game of basic math skills
222	<b>Math Tutor</b>	DOS	Math tutor for grades 1 - 6
223	Math Wizard	Mac	Test memory using 14 different levels
224	Math Workout	DOS	Arithmetic drill for all ages
225	<b>Mathcard</b>	Win 95	Simple math equations in concentration game
226	Mathematics Worksheet Factory	Win 95	Printable worksheets for grades 1-7
227	Mather	DOS	Moraff's math for prizes educational game
228	MathFlash	Win 95	Provides practice in mathematics functions
229	<b>MathGo 1.1</b>	Mac	Flash card program for use with HyperCard
230	MathTutr	Win 95	Teaches basic math skills
231	MathWiz	DOS	Mathematics practice program
232	<b>MathYou</b>	DOS	Four basic functions; twelve levels of difficulty
233	Mega Mind Maze	DOS	Word game
234	Memory 2	Win 3.1	Four games for improving memory skills
235	Memory Master	DOS	Improve your memory with this educational program
236	Memory Measure	Mac	Practice math functions in a game
237	Memory with Words	Win 95	Translation of words by uncovering cards
238	Memory Wizard	Win 95	Helps with memorization of items - demo only
239	<b>Memotest</b>	Win 3.1	Memory test program
240	Merlin's Math	DOS	Teaches multiplication & division
241	Mini-Computer	DOS	Elementary computer math tutor for children
242	MiniMan	Win 95	Educational and productivity tool for children
243	Missile Math	Win 95	Math drills in arcade game format
244	MMI Trainer	Win 95	Learn vocabulary and grammatical terms
245	Monster Math	Win 3.1	Game to increase your math skills.
246	Monster Math (32 Bit)	Win 95	Game to increase math skills
247	Monthly Vocabulary Builder	DOS	Vocabulary tutor

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248	Mouse Math	Win 3.1	Verbal mathematics drill program
249	MSB: Talking Arithmetic Tutor	Mac	Demo: prints math worksheets including answer keys
250	MSB: Whole Number Arithmetic	Mac	Program for studying grammar in an amusing way
251	MSB: Worksheet Generator	Mac	Teach basic math skills (K-6)
252	<b>Multi-Fun</b>	Win 3.1	Fun way to practice mathematics
253	Multimedia Spelling Bee	Win 3.1	Spelling game with speech & graphics
254	Multiplication Stack	Mac	Advice on grammar usage and other language problems
255	Multi-Trainer	Win 3.1	Universal knowledge drilling program
256	<b>My Spelling Bee</b>	Win 3.1	Record and practice individual spelling needs
257	Mysto the Mindreader	Win 95	Educational programmable word game
258	No Frills KidsMath	Win 95	Practice math; simple program
259	Nothin' But The Facts	Win 3.1	Master basic arithmetic skills
260	<b>Number Target 1.12</b>	Mac	Game to help with reading skills
261	Online English Handbook	Mac	Generates administers and archives tests
262	<b>Paragraph Punch</b>	Win 95	Writing tutor-learn to write effective paragraphs
263	<b>PC Dictionary</b>	Win 3.1	Helps master vocabulary thru word parts
264	PC-CAI	DOS	Design helpful educational programs or games
265	<b>PC-Fastype</b>	DOS	Typing tutorial
266	Penny Penguin's Math Bingo	Win 3.1	Multimedia - teach child mathematics
267	<b>Perfect Typing</b>	DOS	Typing program
268	Phonics 123	DOS	Teaches phonetic reading and spelling methods
269	<b>Planet Math</b>	Win 3.1	Math tutor for ages 6 to 16
270	Power Typing Light	Win 3.1	Tutorial for both beginners and experts
271	Practice	DOS	User designed tutorial
272	Practicing Math	DOS	Practice various mathematics concepts
273	<b>Primary Learning</b>	Win 3.1	Ten educational exercises; ages 6-14
274	<b>Prime Time Math</b>	Win 95	Word problems skills-grades 7 to 12
275	Professor Phonics	Mac	Make and complete on-screen cloze procedure passages
276	Punctuation Fundamentals	DOS	Punctuation fundamentals - Reference
277	<b>Puzzle</b>	Win 95	Translation of words in jig-saw puzzle format
278	Puzzler	DOS	Create crossword, word search, scramble puzzles
279	PYS: Choose The Best	Mac	Multiple choice program that runs as a drill or as a test
280	<b>PYS: Practice Your English</b>	Mac	Practice common English patterns
281	PYS: Practice Your Jumble	Mac	Rearrange the words of sentences in order
282	PYS: Practice Your Spelling	Mac	Practice spelling of words in your own text
283	PYS: Practice Your Verbs	Mac	Work with irregular verb drills
284	Quictype	DOS	Game for polishing touch typing skills
285	Quiz Buster	DOS	Generate math quizzes - for teachers
286	QuizMaker Pro	Mac	Lesson module in Little Fingers Classroom series
287	Quiz-Master	Win 3.1	Multiple-choice quiz generating program
288	Quizzia	DOS	Trivia game based on nutritional data
289	<b>Ray's Numbers Game</b>	Win 3.1	Multimedia math tutor; range of difficulty
290	Ray's Spelling	Win 95	Practice and test options incl. voice recording
291	<b>Ray's Spelling &amp; Word Games</b>	Win 3.1	Learn spelling, improve reading, vocabulary
292	ReadFast	DOS	Improves reading speed and efficiency
293	ReadFlex	Win 95	Speed reading for beginners and experts
294	ReadFlex	DOS	Speed reading for beginners and experts
295	Reading Acceleration Program	Win 95	Read text files at adjustable speeds
296	ReadRunner	Win 95	A speed reading program
297	<b>Real World Reading Skills</b>	Win 95	Improve literacy and comprehension

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298	Resume Best	DOS	How to do your own resume
299	Resume Professional	DOS	Helps prepare a resume
300	Riddle Balloon	DOS	Riddle/spelling practice
301	Roxie's Math Fish	Win 95	Child's math game
302	Roxie's Math Fish	Win 3.1	Children's math game
303	<b>Roxie's Reading Fish</b>	Win 95	Learn to read playing "Go Fish"
304	Saragram	DOS	A children's typing program
305	School Crazy	Win 3.1	Practice and reinforce skills
306	<b>School Mom Plus</b>	DOS	Multiple learning levels for various subjects
307	School-Mom	DOS	Game teaches music/art/spelling/english/math
308	Scrambled Words	DOS	An educational game
309	Screen Cloze	Mac	Reading, vocabulary & phonics
310	Senari Division	DOS	Long division tutor
311	Senari Multiplication	DOS	Math education: multiplication trainer
312	<b>Show 'N Spell</b>	DOS	Graphic spelling bee & tutor
313	<b>SKILLAB2</b>	DOS	English language skills development
314	Snakes & Ladders	DOS	Simple math game
315	<b>Snowman</b>	Win 3.1	Children's word game
316	Snowman (32 Bit)	Win 95	Hangman-like game for vocabulary enhancement
317	Sounds Like	Mac	The parts of speech with definitions, examples and tests
318	Speed	DOS	Typing game - improves speed
319	Spell Tutor	Mac	Paced reading with electronic texts
320	Spell-Bot	Win 95	Game similar to classic hangman
321	Spelling Bee	Win 95	Spelling Bee for Windows 95
322	<b>Spelling Beez</b>	DOS	Visual and oral spelling program
323	<b>Spelling Games</b>	Win 3.1	Eight different spelling games
324	Spelling Gremlins	DOS	Flash cards for commonly misspelled words
325	Spell-Well	DOS	Learn to write & spell (voice capable)
326	<b>Spiko and the Math Masters</b>	Win 95	Mathematics program
327	SSP Math Trainers	Win 95	Windows version of DOS math program
328	Storymaker	DOS	Create & read storybooks
329	Study	Win 95	Flash cards for studying for tests and exams
330	StudyMaster Flash Cards	Win 3.1	Memorization aid
331	Super Memo	DOS	Learning tool; automated repetitive study
332	<b>Tablewiz</b>	Win 95	Helps students learn multiplication tables
333	Talking Community Signs	DOS	Fun program for people learning literacy skills
334	Talking English	Win 3.1	Teaches basic sentence structure
335	Talking Spelling	Win 3.1	Children's spelling program
336	Talking Teacher	Win 3.1	Teaches alphabet, read, write, spell, etc
337	Talking Teacher	DOS	Alphabet/reading/spelling
338	Talking Time Tutor	DOS	Four activities teach your child to tell time
339	Talking Times Table	Win 3.1	Teaches times tables (up to 12)
340	Teach Mathematics	DOS	Arithmetic word problems generator
341	Teach Reading	Win 3.1	Practice scanning & concentration skills
342	Teach Your Children	Win 3.1	Help teach in problem areas
343	Test and Study	DOS	Test and Study: Tests knowledge
344	The Jumbler	Win 3.1	Word puzzle game
345	The Math Tutor	DOS	Basic math problem generator
346	The Numbers Game	DOS	Various difficulty levels for the four math functions
347	<b>The Parts of Speech</b>	Mac	Text-to-speech technology to read all text files

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348	The Reading Machine	Mac	Word game with 80 twisters and voices.
349	The Reading Mouse	Mac	Typing program for young readers with speech
350	The Spelling Tutor	DOS	Spelling Tutor: Put your word list in to study
351	The Spelling Voice	Win 3.1	Create & use spelling lists with own voice
352	The Tester	Win 3.1	Create electronic flashcards
353	The Words	Win 95	Vocabulary learning program (languages)
354	The Words	Win 3.1	Easy to use vocabulary learning program
355	TipTap Lite	Win 3.1	Teach phonics/grammar/typing/handwriting
356	Tommy's Math Tooter	DOS	Demo - make equations from numbers and symbols
357	Tongue Twisters	Mac	Teach letters and words - unscramble mixed-up words
358	Total Recall	Win 3.1	Easy-to-use study program
359	Total Recall	DOS	Shareware version of Total Recall educational program
360	<b>Touch Typing</b>	Win 95	Teaches touch typing
361	Track Words	Win 95	Game similar to Boggle
362	Treasure Hunt Math	DOS	Elementary math (grades 1-6) in arcade-style game
363	True Multiple Choice	Win 3.1	Write, review, tutor and test at five levels
364	Type & Speak 0.55	Mac	Demo: step by step animated, spoken and visual tutorial
365	Type Games	DOS	Typing practice - phrases
366	TypeDrill	DOS	TypeDrill: Improve typing skills
367	TypeMate	DOS	Menu orientated typing course
368	Typing Master	DOS	Touch typing training program
369	Typing Tutor International	DOS	Typing tutor with several keyboards
370	Typing World	DOS	Touch typing in a game environment
371	Unicorn Quest	DOS	Kids' typing tutor game for one or two hands Demo: diagnostic, tutor and practice mathematics functions
372	Unscramble 1.2	Mac	
373	Verbalist	DOS	Shows syntax and morphology of Eng verbs
374	Visual Text Publisher	DOS	Create electronic books or magazines
375	Vocabulary Blaster	DOS	Question and answer format of flash cards
376	Vocabulary Builder - Eng 2	Win 3.1	Player shoots objects to match words
377	Vocabulary Power	DOS	Create word searches, bingo & flash cards, etc.
378	Vocabulary Trainer	Win 95	For learning new popular vocabulary words
379	VT	DOS	User created flash card file
380	<b>Weekly Speller</b>	Win 3.1	Practice weekly spelling lists
381	<b>Weekly Speller (Ver 1.7)</b>	Win 95	Practice spelling lists - record sounds
382	What's In That Box	DOS	Teaches basics of DOS, Windows, etc.
383	Which Number	Mac	Simple math game
384	WinAsks Professional	Win 3.1	Creates multimedia questionnaires
385	Wind-O-Math	Win 3.1	Math tutor in game form
386	Windows Spell-B	Win 3.1	Spelling teacher for children and older folks
387	WinFlash	Win 3.1	Flash card program
388	WinFlash Educator	Win 95	Flashcard learning and test program
389	<b>WinMath</b>	Win 3.1	Practice basic math skills
390	Wisco Word Power	Win 3.1	Creates vocabulary drills for teachers
391	Wonder Word	DOS	Spelling game in crossword format
392	<b>Word Blast</b>	Win 95	Hangman-like game for vocabulary enhancement
393	Word Boxing	Win 3.1	A simple windows word game.
394	Word Challenge	DOS	Educational word game
395	<b>Word Demons</b>	Win 3.1	Helps recognize commonly confused/misused words
396	<b>Word Demons</b>	DOS	Helps with commonly misused words
397	<b>Word Find</b>	Win 95	Have fun and learn in a word search game

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398	<b>Word Gallery</b>	DOS	Match words with pictures, children ages 4-7
399	Word Games at Camelot	DOS	Action game that teaches 3300+ words (8-adult)
400	Word Hound	Win 3.1	A word find game
401	Word Juggler	Mac	Practice thinking and spelling skills Generates sorted word lists of several kinds from text files
402	Word List Maker	Mac	
403	Word Math Challenge	DOS	Word math, grades 3-6
404	Word Mix	Mac	Simple game involving sorting out mixed up sentences
405	Word of Fortune	Win 3.1	Word game
406	Word Problem Work-Up (1)	Win 3.1	Master word problems - Math levels 4 to 8
407	Word Problem Work-Up (2)	Win 3.1	Master word problems - Fractions
408	Word Puzzler	Win 95	Crossword & word search puzzles from lists
409	Word Rescue	DOS	Three different episodes with unique words
410	Word Scramble	Win 3.1	Create word puzzles
411	Word Search	DOS	Generates scrambled word puzzles
412	Word Search 2.6.0	Mac	Creates various shapes and sizes of word searches
413	Word Search Construction Kit	Win 3.1	Create word puzzles in fun shapes
414	<b>Word Search for Windows</b>	Win 3.1	Multimedia word searches
415	Word Search Puzzle Maker	DOS	Word puzzles
416	Word Search Rampage	Win 95	Word search game
417	<b>Word Search Rampage</b>	Win 3.1	Multi-media word search puzzle-game
418	Word Wrestle	Win 95	Word game similar to Boggle
419	<b>Word Wrestle</b>	Win 3.1	Word game similar to Boggle(tm)
420	<b>Word-A-Day</b>	Win 95	Vocabulary trainer - learn one new word a day
421	WordMaker	Mac	Improve reading skills by making words with letters
422	WordMonger	DOS	Create anagrams, hangman, word search tools
423	Words	Win 95	Word game similar to Tetris
424	Words for Windows	Win 3.1	Challenging word game
425	<b>WordSearch Factory</b>	Win 95	Quickly and easily create word search puzzles
426	WordSpell 1.6	Mac	Drag letters to form a word; speech capable
427	WordWhiz	DOS	Tests knowledge of English language
428	Work Sheets	Win 3.1	Produces worksheets for math problems
429	<b>Write All About It</b>	Win 3.1	Help prepare student writing for publication
430	<b>Write It Right (Skill Level 6-8)</b>	Win 3.1	Correct common problems in writing
431	<b>Write It Right (Skill Level 9-11)</b>	Win 3.1	Correct common problems in writing
432	Writer's Dream	DOS	Produce electronic books on computer disks
433	Writing About Reading	Win 95	Writing tutor-learn to write effective paragraphs
434	<b>Writing About Reading</b>	Win 3.1	Writing tutor (Windows 3.1 version)
435	Writing Demons	Win 3.1	Common problems in writing (levels 5-8)
436	<b>Writing Style Demons</b>	Win 3.1	Common errors in writing styles (levels 7-10)
437	Xross Word	Win 3.1	Provides puzzles with educational value
438	Zpeller	DOS	Spelling and vocabulary tutor