Group Assignment:
Software Evaluation Model

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Education 531
Assessment of Software and Information Technology Applications

Submitted to:
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Introduction

The evaluation form that we created is able to be completed by both instructors and students. The rubric has categories that students may not be able to fill out but there is a column labeled “not applicable”.

Scenarios: Generally speaking, teachers want software programs that are simple to use and yet effective. The time constraints on teachers in public education does not usually allow for time to practice with multiple software programs. A simple software evaluation form will allow teachers a comprehensive recommendation on whether a software program would be useful in their classroom. The goal is to have an evaluation form that is easy to complete and easy to read for non-evaluators. A teacher should be able to purchase or download new software and be able to use the form to judge if the software is suitable for the students and curriculum outcomes being assessed. Certainly it would be beneficial to have students use the software and complete the evaluation form to really gain insight into the potential value of the program.

One scenario would be a teacher sitting at his or her desk after school looking at a software program for the first time. The program may have been suggested by a colleague, installed by the technology support person from the school board, or discovered by the teacher. In this scenario the teacher would obtain a copy of the evaluation form, review it, and then start the program. The evaluation form is designed to be completed as the teacher uses the program. Hopefully, the form brings to mind areas of the software that the teacher may not have thought to consider (ie. online/telephone help support from the publisher). A best case scenario for this sort of form would to be an online portal area where teachers could login (be it district-wide or for each specific school) so that results could be viewed by other teachers as well as those at the district office who have a hand in planning professional development and what software is worthy of buying.

A second scenario would be a student completing the form. The form would be straightforward
for a student at least in grade seven to complete. The rubric is a simple and the written answer questions allow for a broad range of potential responses from students. In this scenario the teacher would have the form ready for the student(s) and then ask that the software be used. The teacher would direct the student(s) to explore areas of the software that require feedback on the evaluation form. It would be helpful to ask students to take into consideration the subject area intended for use with the software.

Upon completion of the evaluation the forms would be compiled and a general sense of the usefulness of the software given its intended use and audience would be achieved. This will also allow for the further discovery of software for teachers in other schools and across districts to be used. As put so succinctly by Sterling, “Software evaluation should be conducted by the instructor. The evaluation method used should yield information about quality, effectiveness, and instructional use” (2002). This is the most direct and simplistic goal of the evaluation which will be discussed below.
Software Evaluation Criteria

It is of great importance that the limited financial resources available to schools/boards are used effectively. In growing information technology (IT) world the use of computers is rapidly advancing and becoming more complex. Students are generally introduced to computers at a young age and are entering the public education system with a high level of computer literacy skills. The software that is purchased by schools/boards needs to be reflective of the outcomes and needs of the students. Software evaluation forms are one part of the process to help ensure that what is purchased is appropriate and cost effective. These sorts of forms can then be used by department heads, administrators and those who help sculpt technology-related policy at the district or provincial level.

The following form developed by Adam Binet and Aaron Jackson has been designed to be user friendly while also providing the decision makers with the knowledge and feedback necessary to make sound purchasing decisions.

Students who are introduced to quality software will receive a great educational benefit. Software is able to give immediate feedback and provide stimulus and motivation to encourage students to complete the exercise and help them understand and make critical evaluations of computer programs based upon a wide-array of criteria.

The form that we created contains different criteria with each containing statements for the evaluator to consider. The rubric is divided into five columns containing the following: agree, strongly agree, disagree, strongly disagree, and not applicable. The evaluator is asked to consider the statement and then check one of the five possible responses.

The first section is titled “Educational Value” which we copied from the PEI Department of Education. Under this section we have the following questions/statements:
• The software encourages critical thinking skills
• The software helps to develop problem solving skills
• The software allows students to recall/apply learned information
• The software supports different learning styles
• The software covers a wide range of skill levels
• The software encourages independent learning
• The software addresses a large number of intelligences
• The software provides feedback to the user
• Uses appropriate subject specific vocabulary
• Highly engaging for students
• Holds participants’ attention
• Adequate level of motivational support

We titled the second section “Usability”. This section looks at the ease of use for instructor and user based on the following statements and questions:

• Easy for instructor to master software
• Easy for Participant to use
• Start-up and Exiting procedures are Simple and Quick
• If provided, the manual is clear and easy to follow
• If provided, the onscreen tutorial is clear and useful
• The user level can be set individually (advanced, beginner, etc.)
• The pace and speed are user controlled

The third section is titled “Content” and contains the following statements or questions.

• The examples provided with the software are relevant to the course objectives.
• The information included with the software is current
• The information provided is free of stereotypes

• The content is not discriminatory

• The content develops further interest in the topic

• Program Layout is Logical and Easy to Use

• Contains useful Built-In Documentation & Help Resource is Thorough

• Start-up and Exiting procedures are Simple and Quick

A properly designed software application will allow students to construct their own knowledge as they attempt to demonstrate their mastery of general and specific curriculum outcomes. It is our belief that our evaluation form will give succinct feedback regarding whether or not a software application is appropriate for the specific needs of the students.
Rationale for Evaluation Model

With the rapidly changing world of software development and design it is vital for educators to use a tool to assess these programs and their pedagogical validity and usefulness. As Belson argues, “Software, or computer-based teaching, is not able to make connections to what the student knows and deals with in daily life” (2003). Using an evaluation tool such as the one which has been developed below, allows educators and decision makers to better assess new software tools which may prove to be very useful in the current system.

It is clear that it is this reflection and discussion amongst teachers and students about specific software which allows us to make and reinforce the educational uses and reasoning behind using such programs (Belson, 2003). The rationale behind the model of the evaluation form developed below is based on the extensive literature on the creation of such tools as well as looking at many provincially endorsed and created examples, as well as those created by experts and academics. This model also allows for more modern means of obtaining software and the built in features which are standard today (as opposed to many forms which have sections which are extremely dated). As Komoski and Plotnick state, “The most effective way to judge whether software is appropriate or not is to observe students as they interact with the program” (1995) and this is the very essence and one of the main purposes of the evaluation tool below.

The evaluation tool developed below strikes a harmony of many of the traditional questions which many popular software evaluation tools contain and also those of more modern provincial examples found from Nova Scotia and Prince Edward Island. Taking into account what Geissinger states, “We now understand that learners operate on many levels, some of which are subconsciously chosen, and that they (who are also ourselves) are influenced by both intrinsic and extrinsic factors”
(1997) an evaluation tool for software is now more important than ever. And after having done an evaluation of many preexisting software evaluation tools, what you find below is a synthesis of all of them. Simple yet thorough and able to provide quick feedback to educators and those who make decisions on software purchases.

All in all, the role of software evaluation is and seems to be increasingly popular and gaining momentum. In a world where a new website and program is released literally by the day or even hour, having a means to quickly and accurately evaluate them is vital. Teachers do not have the time to wade through countless programs and require the assistance of others in their profession to help the cream truly rise to the top.
Software Evaluation Form

<table>
<thead>
<tr>
<th>Name(s) of Evaluator(s):</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Publisher:</td>
<td>Price:</td>
</tr>
<tr>
<td>Computer Requirements:</td>
<td>Subject/Curriculum Area:</td>
</tr>
<tr>
<td>Age Range of Participant(s):</td>
<td>Software Title and Version Number:</td>
</tr>
<tr>
<td>Hardware Required to Effectively Use:</td>
<td></td>
</tr>
</tbody>
</table>

*Rate the following items with a score (4 = Strongly agree; 3 = Agree; 2 = Disagree; 1 = Strongly Disagree)*

<table>
<thead>
<tr>
<th>Subject</th>
<th>N/A</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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</thead>
<tbody>
<tr>
<td>The software encourages critical thinking skills</td>
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<td>The software allows students to recall/apply learned information</td>
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<tr>
<td>The software supports different learning styles</td>
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<tr>
<td>The software covers a wide range of skill levels</td>
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<td>The software encourages independent learning</td>
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<td>The software addresses a large number of intelligences</td>
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<td>The software provides feedback to the user</td>
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<td>Uses appropriate subject specific vocabulary</td>
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<td>Highly engaging for students</td>
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<tr>
<td>Holds participants’ attention</td>
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<tr>
<td>Adequate level of motivational support</td>
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</tbody>
</table>

Usability

| Easy for instructor to master software                                   |     |
| Easy for Participant to use                                             |     |
| Start-up and Exiting procedures are Simple and Quick                    |     |
| If provided, the manual is clear and easy to follow                      |     |
| If provided, the onscreen tutorial is clear and useful                   |     |
| The user level can be set individually (advanced, beginner, etc.)       |     |
| The pace and speed are user controlled                                  |     |

Content

| The examples provided with the software are relevant to the course objectives. |     |
| The information included with the software is current                     |     |
| The information provided is free of stereotypes                            |     |
| The content is not discriminatory                                          |     |
| The content develops further interest in the topic                         |     |
Program Layout is Logical and Easy to Use
Contains useful Built-In Documentation & Help Resource is Thorough
Start-up and Exiting procedures are Simple and Quick

Written responses
1. Describe the areas of strength for this software.

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

2. How does the software accommodate students of varying ability levels?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

3. On a scale of 1-10 how would you rate the overall effectiveness of this software for use in educational settings and explain why?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
4. How does the software meet the needs in our growing IT educational system with regard to meeting subject outcomes?
References


http://www.stirlinglaw.com/deborah/software.htm

Software Evaluation Forms Used:

https://sapps.ednet.ns.ca/lrtforms/softevalonline.shtml

http://www1.american.edu/IRVINE/eval.html

http://www.edu.pe.ca/softeval/quality_one.pdf

http://www.edu.pe.ca/softeval/quality_two.pdf