

## APPENDIX E

### REVIEWERS FOR USABILITY TEST 1: COMPUTER EDUCATION BLOG FOR THE HYBRID E-TRAINING COURSE EXPERTS (5) AND END-USERS (10)

#### USABILITY TEST **ROUND 1**

Lohr & Eikleberry (2000) suggest that usability tests consider whether or not learner recognizes and accesses instructional elements as intended by the designer. Although they agree with Nielson's (1993) rule of thumb on a minimum of 3-5 sample size as real-world and fits the demand of most development environments, where time and money is the key driver of design; they also offer a practical suggestion - "as many as possible, the more eyes on your product the better". As such for this usability test round 1, the researcher engaged 5 experts and 10 end-user as listed below.

**Venue:** At the respondent's office/school/institution

**Event :** Online usability test

**Time :** January – February 2008

Further post-test feedback received through the Computer Education Blog at

<http://rosseni.wordpress.com>.

- Respondent 1:**        **Mrs. Elsie Mathews (Expert)**  
Computer Teacher  
Copperfield College, Goldsmith Avenue, 3037 Victoria, Australia.
- Respondent 2:**        **Dr. Philipa Gerbick (Expert)**  
Academic Group Leader,  
School of Education Chair AUT Ethics Committee,  
Auckland University of Technology, Auckland, New Zealand.
- Respondent 3:**        **Mrs. Fariza Khalid (Expert)**  
Educational Technology Instructor,  
Faculty of Education,  
University Kebangsaan Malaysia, Malaysia.
- Respondent 4:**        **Mrs Nor Rasimah Abdul Rashid (Expert)**  
Instructor, FOSEE Department,  
Multimedia University, Malacca Campus, Malaysia.
- Respondent 5:**        **Miss Salina Kadirun (Expert)**  
Instructor, Kolej Teknologi Yayasan Alor Gajah  
Tingkat 3, Wisma Umno Alor Gajah  
78000 Alor Gajah, Melaka, Malaysia.
- Respondent 6:**        **Rafidah Othman (End-User)**  
Science Teacher Trainee  
(Science & Computer Literacy Method),  
Faculty of Education,  
University Kebangsaan Malaysia, Malaysia.
- Respondent 7:**        **Abdul Hakim Hj. Abdul Majid (End-User)**  
Teacher Trainee,  
Institut Perguruan Besut, Terengganu.
- Respondent 8:**        **RoZIAH Mohd Amin (End-User)**  
Post Graduate Student  
(Resource & Information Technology)  
Faculty of Education,  
University Kebangsaan Malaysia, Malaysia.

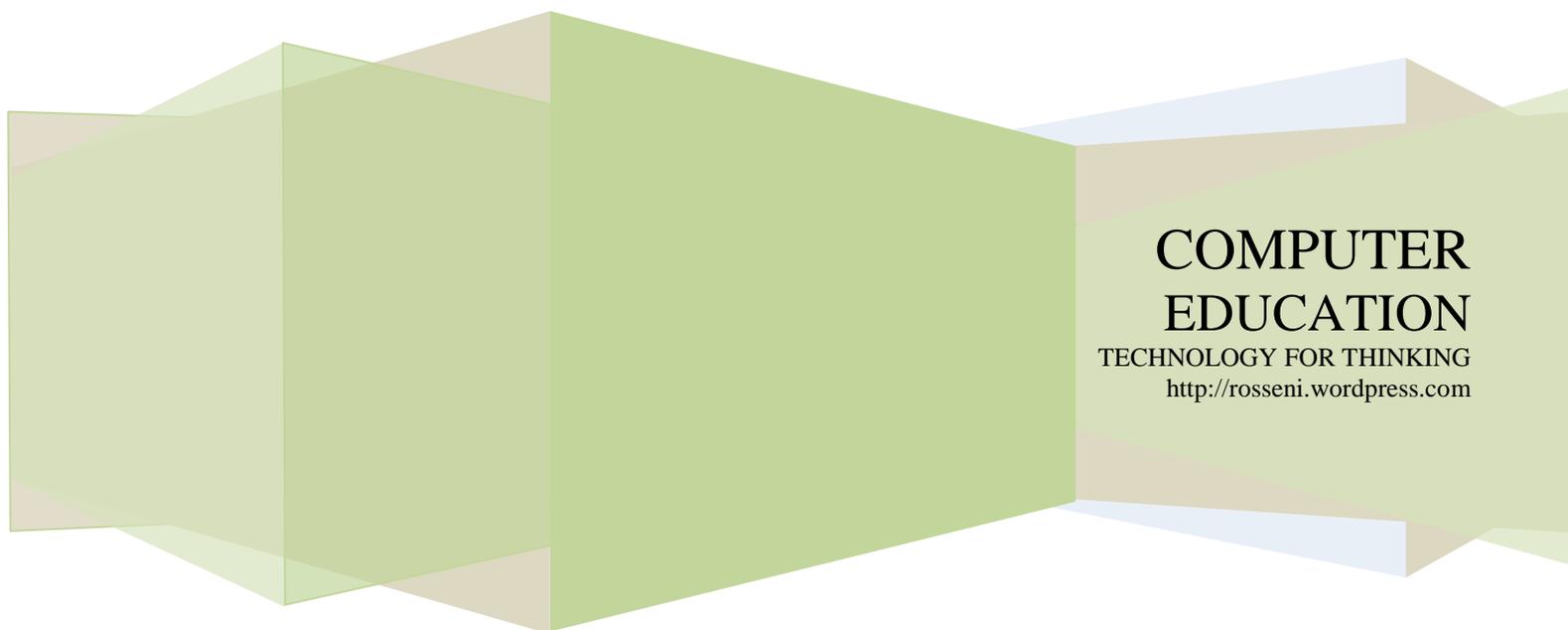
- Respondent 9: Sabariah Othman (End-User)**  
Post Graduate Student  
(Resource & Information Technology)  
Faculty of Education,  
University Kebangsaan Malaysia, Malaysia.
- Respondent 10: Bahalu Raju (End-User)**  
Post Graduate Student  
(Resource & Information Technology)  
Faculty of Education,  
University Kebangsaan Malaysia, Malaysia.
- Respondent 11: Shree Kogilavane Rajagopal (End-User)**  
Post Graduate Student  
(Resource & Information Technology)  
Faculty of Education,  
University Kebangsaan Malaysia, Malaysia.
- Respondent 12: Mazlan Abdul Talib (End-User)**  
Post Graduate Student  
(Computer Education)  
Faculty of Education,  
University Kebangsaan Malaysia, Malaysia.
- Respondent 13: Maimunah Karim (End-User)**  
Post Graduate Student  
(Resource & Information Technology)  
Faculty of Education,  
University Kebangsaan Malaysia, Malaysia.
- Respondent 14: Elango Periasamy (End-User)**  
Post Graduate Student (Computer Education)  
Faculty of Education,  
University Kebangsaan Malaysia, Malaysia.
- Respondent 15: Farah ALiza Abdul Aziz (End-User)**  
Post Graduate Student (Computer Education)  
Faculty of Education,  
University Kebangsaan Malaysia, Malaysia.

Responds and comments are received either via face-to-face meeting, telephone conversation, email, blog interaction on comments sections or on the expert review evaluation form. A sample respond from an expert reviewer is attached.

Universiti Kebangsaan Malaysia

# EXPERT REVIEW CHECKLIST

Computer Education Blog: A Hybrid E-Training Approach for Computer Trainers  
Rosseni Din



**COMPUTER  
EDUCATION**  
TECHNOLOGY FOR THINKING  
<http://rosseni.wordpress.com>

# EXPERT REVIEW CHECK LIST

## COMPUTER EDUCATION BLOG

<http://rosseni.wordpress.com/>

REVIEWER: [REDACTED]

DATE: 12 February 2008.

FIELD OF EXPERTISE: Online and blended learning, computer-mediated discussion

INSTITUTION: Auckland Univeristy of Technology.

Please **bold/circle** your rating and **insert** your comments on each aspect of the blog. 1 represents the lowest and most negative impression on the scale, 3 represents an adequate impression, and 5 represents the highest and most positive impression. Choose **N/A** if the item is not appropriate or not applicable to this course.

NA=Not applicable    1=Strongly disagree    2=Disagree    3=Neither agree/nor disagree    4=Agree    5=Strongly agree

### AREA 1 - INSTRUCTIONAL DESIGN REVIEW – PEDAGOGY/STRATEGY

1. The blog would be a complement to the regular face to face teaching and learning method. N/A    1    2    3    4    **5**

*An excellent complement because of the different learning approaches ie f2f is about talking and listening (mostly) whereas the blog emphasizes reading, thinking and writing ( as well as listening and watching)*

2. Technical skill (in reference to blogging) that can be developed with support of the blog facilitated by teachers or peers exceeds what can be attained with face-to-face lecture alone. N/A    1    2    3    4    **5**

*Yes, much wider and different environment which demands different skills*

3. Blogging (reflect, write, discuss, collaborate) promotes formation of concepts. N/A    1    2    3    4    **5**

*Yes, because the learner has to make sense of it themselves and can then see what others think of their view*

4. The Computer Education blog promotes meaningful learning via:
- |                          |     |   |   |   |          |          |
|--------------------------|-----|---|---|---|----------|----------|
| a. active learning       | N/A | 1 | 2 | 3 | 4        | <b>5</b> |
| b. cooperative learning  | N/A | 1 | 2 | 3 | <b>4</b> | 5        |
| c. authentic learning    | N/A | 1 | 2 | 3 | 4        | <b>5</b> |
| d. constructive learning | N/A | 1 | 2 | 3 | 4        | <b>5</b> |
| e. intentional learning  | N/A | 1 | 2 | 3 | 4        | <b>5</b> |

5. The feedback in this blog is timely. N/A    1    2    3    **4**    5

## AREA 2 - INSTRUCTIONAL DESIGN REVIEW – THEORIES IN PRACTICE

6. Development through blogging occur twice, first on the social level (between people), later on the individual level (inside the person) N/A 1 2 3 4 **5**
- I suspect that this is more iterative and consists of going backwards and forwards between the learner and the blog and then back to the learner etc etc. There are certainly two opportunities as you say. The challenge for the teacher is to design learning activities that include social exchanges. Its easy to get one response but hard to build on this.*
7. The blog functions as a tool to serve as social functions to communicate needs. N/A 1 2 **3** 4 5
- Not sure about this. Certainly learners can communicate their needs. Hard for me to tell here because I don't understand Malay.*
8. Internalization of the tool (blog) can lead to higher thinking skills. N/A 1 2 **3** 4 5
- There is certainly an opportunity for this to happen, however whether it does is another matter. For em this depends on what activities are carried out through a blog – again learning design.*
9. The interface design minimize on working memory load associated with unnecessarily processing of repetitive information by reducing redundancy. N/A 1 2 3 4 5
- I'm not sure I understand this – but I found very little repetitive information.*
10. The blog maximize on working memory capacity by using auditory and visual input as information under conditions where both sources of information are essential (i.e. non-redundant) to understanding. N/A 1 2 3 **4** 5
11. The blogging project allow learners to start immediately on meaningful tasks. N/A 1 2 3 4 **5**
- Yes certainly – I am assuming here that the tasks were specified in the Course Handbook*
12. Blogging also minimize the amount of reading and other passive forms of training by allowing learners to fill in the gaps themselves. N/A 1 2 **3** 4 5
- I agree and disagree with different parts of this statement. I don't think blogs minimize reading – in fact there is more than a classroom situation – However, they do seem minimize passive learning - according to research – in the sense that they seem to stimulate learners to start thinking and responding. I guess that enables learners to fill in the gaps themselves – although they may step back and just not think about the matter – or wait for someone else to post – but that can help them to start their thinking again.*

13. Blogging allows error, mistakes and misconceptions be recognized almost immediately and recovery can be immediately done. N/A 1 2 3 4 5

*By the teacher, yes, if they look at the blog. Possibly by other students, although my experience is that they are reluctant to address these. In order to do this, students need to first learn respectful forms of critique and to understand why dealing with errors etc is important.*

### AREA 3 - COSMETIC DESIGN REVIEW

12. The screen design of this blog follows sound principles. N/A 1 2 3 4 5

*Really liked this – especially the allocation of topics, postings etc and resources on the left and right hand sides.*

*Liked the drop downs on the front page eg introducing Rosseni in the Prolouge*

13. Color is appropriately used in this blog. N/A 1 2 3 4 5

*Hard for me to comment on this. From teaching my multicultural classroom here in NZ I know that matters like colour are very culturally influenced.*

14. The screen displays are easy to understand. N/A 1 2 3 4 5

### AREA 4 - PROGRAM FUNCTIONALITY REVIEW

15. This blog operated flawlessly. N/A 1 2 3 4 5

*I cant strongly agree because I can't understand Malay. However,generally I found the layout etc all very easy. I went in cold, without reading the Course Handbook to see how it would be and it was easy to comprehend.*

Other Comments:

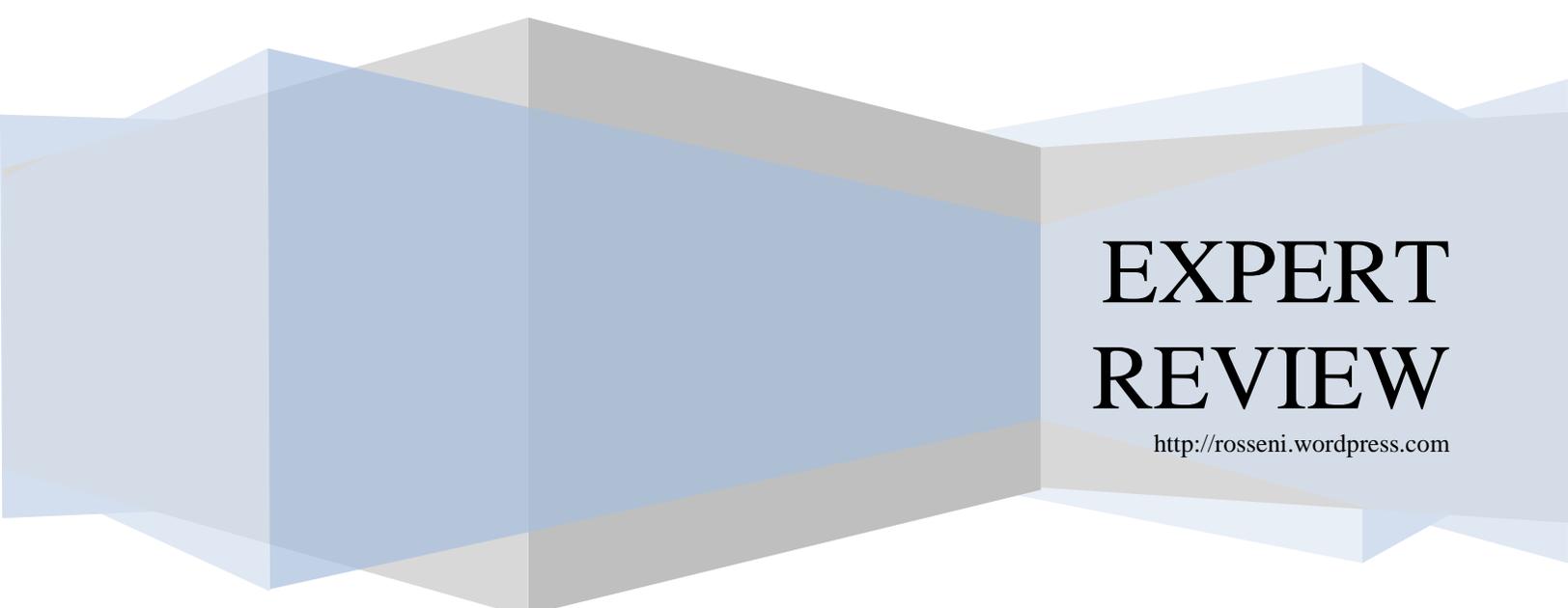
*I especially liked the mixed media – watching and listening to the videos provides a nice break from reading all that text.*

*The websites and blogs were good and could be easily expanded – perhaps as a Collaborative and reflective learning exercise where the class built a resource around the key learning outcomes, using different media.*

Universiti Kebangsaan Malaysia

# HEURISTIC EVALUATION INSTRUMENT AND PROTOCOL

Computer Education Blog: A Hybrid E-Training Approach for Computer Trainers  
Rosseni Din



EXPERT  
REVIEW

<http://rosseni.wordpress.com>

**REVIEWER:** [REDACTED]  
**DATE:** 18 September 2008.  
**FIELD OF EXPERTISE:** Online and blended learning, computer-mediated discussion  
**INSTITUTION:** Auckland University of Technology

# Heuristic Evaluation Instrument and Protocol for a Hybrid E-Learning System

Adapted for Rosseni's PhD Research (2008) from the Draft of September 5 (2001)<sup>1</sup>

## **Introduction:**

This instrument and protocol are intended for use by instructional designers and other experts who are engaged in heuristic evaluations of e-learning systems. The instrument itself lists twenty heuristics for a hybrid e-learning system, some of which are based upon Jakob Nielsen's widely used protocol for heuristic evaluation of any type of software (<http://useit.com/papers/heuristic/>), and the rest of which are based upon factors related to instructional design. Although we have tried to be comprehensive, experts may decide to add new heuristics deemed relevant to the types of e-learning product being evaluated or to the expert's specific expertise.

## **Protocol:**

1. An expert should review the heuristics and accompanying "Sample questions to ask yourself" in the instrument before reviewing an e-learning product. The expert should modify the instrument if needed, by adding, deleting, or changing heuristics.
  2. It is recommended that the expert spend sufficient time exploring the e-learning product before beginning the actual heuristic evaluation. Ideally, the expert will assume the role of typical learner who would use this e-learning product. Before beginning the review, the expert should be given (or try to discover) background information related to the e-learning product such as:
-

- a. Target audience and learner characteristics: A thorough description of the intended audience and their learner characteristics (e.g., education level, motivation, incentive, and computer expertise) will enable the expert to judge the appropriateness of the user interface and other aspects of the program's usability in an informed manner.
  - b. Instructional goals and objectives: The expert should know as much as possible about the needs that the e-learning product is intended to address, ideally in terms of clear goals and objectives.
  - c. Typical context for using this program: Realistic scenarios for when, where, and how the e-learning product will be used should be described to the expert.
  - d. Instructional design strategies used in the program: If possible, a description of the design specifications used in developing the e-learning program should be provided to the expert so that the expert's judgment of the appropriateness of the instructional design strategies are informed with respect to the instructional designer's intentions.
  - e. The status of the product's development and possibilities for change: The expert should be informed as to where the program is in the development cycle (e.g., an early prototype, a beta version, or a completed version under consideration for redesign).
3. After spending enough time to become familiar with the product, the expert should go through it from beginning to end to conduct the actual heuristic evaluation. (With very long programs for an extensive product, the expert may only go through a representative sample of the program.)
  4. The expert should make note of every usability problem found. For each problem, the expert should identify the heuristic it violates, and then give it a severity rating using the severity scale below. If the problem cannot be attributed to a violation of a specific heuristic, the expert should make a note of this. (If a number of problems are found that cannot be associated with specific heuristics, this may suggest the need for the development of new heuristics.)

1) *Severity Scale (SS)*

- 1) cosmetic problem only; need not be fixed unless extra time is available
- 2) minor usability problem; fixing this should be given low priority
- 3) major usability problem; important to fix; so should be given a high priority
- 4) usability catastrophe; imperative to fix before this product is released

5. After all the usability problems are found, the expert should go back through them and give each one an extensiveness rating using the extensiveness scale below

2) *Extensiveness Scale (ES)*

- 1) this is a single case
- 2) this problem occurs in several places in the program
- 3) this problem is widespread throughout the program

6. Most heuristic evaluations involve 4 or 5 experts. Once all the experts have completed their evaluations, they may be brought together for a debriefing led by a moderator. The discussion of the usability problems may be videotaped for further analysis. If major differences appear in the problems found or the ratings given, the moderator may try to get the experts to resolve their differences and reach consensus. The experts may also be asked to suggest strategies for resolving the major usability problems they found.
7. A heuristic evaluation report should then be compiled. Bar charts, tables, and other illustrations should be used to display the results. Screen captures can also be incorporated into the report to illustrate major problems and suggested enhancements.
8. The most important component of the heuristic report is a set of recommendations for improving the usability of the e-learning program. These should be as specific as possible to provide the designers with the information they need to eliminate the problems and improve the e-learning program.

II. E-LEARNING USABILITY HEURISTICS

*I have responded to these questions as an experienced and confident user of ICT. I have no expert knowledge of human computer interfaces of design and that is reflected below. I think also, that using the site would have been easier if I read Malay.*

**1. Visibility of system status:** *The e-learning product keeps the learner informed about what is happening, through appropriate feedback within reasonable time.*

- a. Does the learner know where they are at all times, how they got there, and how to get back to the point from which they started? *Could do with more of a trail*
- b. When modules and other components of the e-learning (e.g., streaming video) are loading, is the status of the upload communicated clearly? *Yes*
- c. Does the learner have confidence that the e-learning product is operating the way it was designed to operate? *Yes*

<i>Severity Scale</i>	1 2 3 4
<i>Extensiveness Scale</i>	1 2 3

Additional comments: *Generally I came to find my way around – although I did get lost a lot at the beginning.*

**2. Match between system and the real world:** *The e-learning program’s interface employs words, phrases and concepts familiar to the learner, rather than system-oriented terms. Wherever possible, the e-learning program utilizes real-world conventions that make information appear in a natural and logical order.*

- a. Does the e-learning product’s navigation and interactive design utilize metaphors that are familiar to the learner either in terms of traditional learning environments (e.g., lectures, quizzes, etc.) or in terms related to the specific content of the program? *yes*
- b. Is the cognitive load of the interface as low as possible to enable learners to engage with the content, tasks, and problems as quickly as possible? *Yes, reasonably intuitive*
- c. Does the e-learning product adhere to good principles of human information processing? *I have no expert knowledge of this*

<i>Severity Scale</i>	1 2 3 4
<i>Extensiveness Scale</i>	1 2 3

Additional comments:

*This was all good – the terms used were all fine - except I wish I could read Malay. Navigation as more of an issue.*

**3. User control and freedom:** *The e-learning program allows the learner to recover from input mistakes and provides a clearly marked “emergency exit” to leave an unwanted state without having to go through an extended dialogue.*

- a. Does the e-learning product allow the learner to move around in the program in an unambiguous manner, including the capability to go back and review previous sections? **Yes, was good**
- b. Does the e-learning product allow the learner to leave whenever desired, but easily return to the closest logical point in the program? **Yes**
- c. Does the e-learning product distinguish between input errors and cognitive errors, allowing easy recovery from the former always, and from the latter when it is pedagogically appropriate? **I couldn't tell**

Severity Scale	1 2 3 4
Extensiveness Scale	1 2 3

Additional comments: **Not able to completely test here because I didn't post anything**

**4. Consistency and standards:** *The e-learning product is consistent in its use of different words, situations, or actions and it adheres to general software and platform conventions.*

- a. Does the e-learning product function properly as long as the computer’s screen resolution, memory allocations, bandwidth, browsers, plug-ins, and other technical aspects meet the required specifications?
- b. Does the e-learning product include interactions that are counter-intuitive with respect to common software conventions?
- c. Does the e-learning product adhere to widely recognized standards for interactions (e.g., going back in a Web browser)?

Severity Scale	1 2 3 4
Extensiveness Scale	1 2 3

Additional comments: **Unable to comment - I have no knowledge of software and hardware conventions**

**5. Error prevention:** *The e-learning product is carefully designed to prevent common problems from occurring in the first place.*

- a. Is the e-learning product designed so that the learner recognizes when he/she has made a mistake related to input rather than content? **Can't comment because I did not input**
- b. Is the e-learning product designed to take advantage of screen design conventions and guidelines that clarify meaning? **No knowledge**
- c. Is the e-learning product designed to provide a second chance when unexpected input is received (e.g. does editing previous comments or post enabled)? **Did not make any postings**

Severity Scale	1 2 3 4
Extensiveness Scale	1 2 3

Additional comments:

**6. Recognition rather than recall:** *The e-learning product makes objects, actions, and options visible so that the user does not have to remember information from one part of the program to another. Instructions for use of the product are visible or easily retrievable.*

- a. Does the interface of the e-learning product speak for itself so that extensive consultation of a manual or other documentation does not interfere with learning? **Was good**
- b. Are icons and other screen elements designed so that they are as intuitive as possible? **good**
- c. Does the e-learning product provide user-friendly hints and/or clear directions when the learner requests assistance? **Was OK**

Severity Scale	1 2 3 4
Extensiveness Scale	1 2 3

Additional comments:

**7. Flexibility and efficiency of use:** *The e-learning product is designed to speed up interactions for the experienced learner, but also cater to the needs of the inexperienced learner.*

- a. Is the e-learning product designed to make the best use of useful graphics and other media elements that download as quickly as possible? **Was good**
- b. Is the e-learning product designed to allow large media files to be downloaded in advance so that learner wait time is minimized?
- c. Does the product allow emoticons that make frequent interactions as efficient as possible? **Yes, were good**

Severity Scale	1 2 3 4
Extensiveness Scale	1 2 3

Additional comments:

**8. Aesthetic and minimalist design:** *Screen displays do not contain information that is irrelevant, and “bells and whistles” are not gratuitously added to the e-learning program.*

- a. Are the font choices, colors, and sizes consistent with good screen design recommendations for e-learning product? **Was good**
- b. Are extra media features (e.g., streaming video) in the e-learning program supportive of learning, motivation, content, or other goals? **Liked the videos – provided variety**
- c. Does the e-learning product utilize white space and other screen design conventions appropriately?

Severity Scale	1 2 3 4
Extensiveness Scale	1 2 3

Additional comments:

**9. Help users recognize, diagnose, and recover from errors:** *The e-learning product expresses error messages in plain language (without programmer codes), precisely indicates the problem, and constructively suggests a solution.*

- Does the learner able to see if their feedback to a posting have been delivered to the system right away?
- If the feedback needs moderation before it appears on the system, is he/she told if the feedback needs moderation before it appears?
- When asynchronous or synchronous feedback is provided, is it given in a clear, direct, and friendly (non-condescending) manner?

Severity Scale	1 2 3 4
Extensiveness Scale	1 2 3

Additional comments: *Did not post or respond so cannot evaluate.*

**10. Help and documentation:** *When it is absolutely necessary to provide help and documentation, the e-learning product provides any such information in a manner that is easy to search. Any help provided is focused on the learner's task, lists concrete steps to be carried out, and is not too large.*

- Is help provided as online resources in a specific page or category of postings?
- Is help and documentation available from any logical part of the e-learning product?
- Does the e-learning product include a menu or list of categories of contents that allows you to see what you have seen and not seen? *I could not see this and it would be useful – especially for the websites*

Severity Scale	1 2 3 4
Extensiveness Scale	1 2 3

Additional comments:

*I looked at the Wordpress Manual and tutorial. They appear to cover the main issues and are easy to understand and navigate*

**11. Interactivity:** *The e-learning product provides content-related interactions and tasks that support meaningful learning.*

- Does the e-learning product provide too many long sections of text to read without meaningful interactions? *Is OK*
- Does the e-learning engage the learner in content-specific tasks to complete and problems to solve that take advantage of the state-of-the-art of e-learning design? *Couldn't find content activities on the blog but they are in the Course Handbook*
- Does the e-learning product provide a level of experiential learning congruent with the content and capabilities of the target audience? *I think so – I'm sure that students would come away from the course being quite competent in working with online facilities – but that also depends on their activity and participation as well eg whether they choose to upload videos etc.*

Severity Scale	1 2 3 4
Extensiveness Scale	1 2 3

Additional comments:

**12. Message Design:** *The e-learning product presents information in accord with sound principles of information-processing theory.*

- Is the most important information on the screen placed in the areas most likely to attract the learner's attention? *Good use of the middle of the screen*
- Does the e-learning product follow good information presentation guidelines with respect to organization and layout? *Yes*
- Are graphics in the e-learning product used to clarify content, motivate, or serve other pedagogical goals? *Graphics were great, especially the videos.*

<i>Severity Scale</i>	<i>1 2 3 4</i>
<i>Extensiveness Scale</i>	<i>1 2 3</i>

Additional comments:

**13. Learning Design:** *Interactions in the e-learning product have been designed in accord with sound principles of learning theory.*

- Does the e-learning product provide for instructional interactions that reflect sound learning theory? *Good use of postings for interactions*
- Does the e-learning product engage learners in tasks that are closely aligned with the learning goals and objectives? *Yes*
- Does the e-learning product inform learners of the objectives of the product? *I don't think I found this in English on the blog – but its clear in the Handbook*

<i>Severity Scale</i>	<i>1 2 3 4</i>
<i>Extensiveness Scale</i>	<i>1 2 3</i>

Additional comments:

**14. Assessment:** *The e-learning product provides assessment opportunities that are aligned with the product objectives and content.*

- Does the e-learning product provide opportunities for learners to try-out advance features with online help and resources and enable self-assessment that will advance learner achievement? *Yes*
- Does online help and resources available to provide sufficient feedback to the learner as remedial directions? *I tried the Manual etc and the instructions looked sufficient*
- Are higher order assessments (e.g., analysis, synthesis, and evaluation) provided wherever appropriate rather than lower order assessments (e.g., recall and recognition)?

*The Assessments are 'authentic' in that they are very real world and would require many of the higher order skills.*

<i>Severity Scale</i>	<i>1 2 3 4</i>
<i>Extensiveness Scale</i>	<i>1 2 3</i>

Additional comments:

**15. Media Integration:** *The inclusion of media in the e-learning product serves clear pedagogical and/or motivational purposes.*

- a. Is media included that is obviously superfluous, i.e., lacking a strong connection to the objectives and design of the program? **No**
- b. Is the most appropriate media selected to match message design guidelines or to support specific instructional design principles? **Looked fine – but learners would give a more informed perspective here.**
- c. If appropriate to the context, are various forms of media included for remediation and/or enrichment? **Yes, especially enrichment**

Severity Scale	1 2 3 4
Extensiveness Scale	1 2 3

Additional comments:

**16. Resources:** *The e-learning product provides access to all the resources necessary to support effective learning.*

- a. Does the e-learning product provide access to a range of resources (e.g., examples or real data archives) appropriate to the learning context? **Yes**
- b. If the e-learning product includes links to external World Wide Web or Intranet resources, are the links kept up-to-date? **Can't tell**
- c. Are resources provided in a manner that replicates as closely as possible their availability and use in the real world? **Absolutely**

Severity Scale	1 2 3 4
Extensiveness Scale	1 2 3

Additional comments:

**17. Performance Support Tools:** *The e-learning product provides access to performance support tools that are relevant to the content and objectives.*

- a. Are performance support tools provided that mimic their access in the real world? **No knowledge of this.**
- b. Provided the context is appropriate, does the e-learning product provide sufficient search capabilities? **Ok – but couldn't always locate items. Often a problem!**
- c. Provided the context is appropriate, does the e-learning product provide access to peers, experts, instructors, and other human resources?

Severity Scale	1 2 3 4
Extensiveness Scale	1 2 3

Additional comments:

**18. Learning Management:** The e-learning product enables learners to monitor their progress through the material.

- a. By looking at their peers blogging project development through the links provided in the product, would the learner know what he/she is suppose to do and how he/she is doing? *I could not find the blogging project developments*
- b. Does the learner perceive options for additional guidance, instruction, or other forms of assistance when it is needed? *Can't comment*
- c. Does the learner possess an adequate understanding of what he/she has completed and what remains to be done by mapping their blogging project to the criteria set for the term project?  
*Can't comment.*

Severity Scale	1 2 3 4
Extensiveness Scale	1 2 3

Additional comments:

**19. Feedback:** The e-learning product provides feedback that is contextual and relevant to the problem or task in which the learner is engaged.

- a. Is the feedback given at any specific time tailored to the content being studied, problem being solved, or task being completed by the learner?
- b. Does feedback provide the learner with information concerning his/her current level of achievement within the program?  
*Sometimes – depends on the comment*
- c. Does the e-learning product provide learners with opportunities to access extended feedback from instructors, experts, peers, or others through e-mail or other Internet communications?

*Certainly – through the postings and feedback system*

Severity Scale	1 2 3 4
Extensiveness Scale	1 2 3

Additional comments:

*I'm not sure about the feedback that is being referred to here. Does this refer to comments by the teacher or other posts? The teacher's feedback is responsive and motivational*

**20. Content:** The content of the e-learning program is organized in a manner than is clear to the learner.

- a. Is the content organized in manageable modules or other types of units? *Yes*
- b. Is the content broken to appropriate chunks so that learners can process them without too much cognitive load? *Yes*
- c. Does the e-learning program provides advanced organizers, summaries, and other components that foster more efficient and effective learning? *Not sure I saw these*

a. Severity Scale	b. 1 2 3 4
c. Extensiveness Scale	d. 1 2 3

Additional comments:

## NOTE:

Experts should modify the heuristics noted above as needed for the specific type of e-learning program being evaluated.

*Your kind help is very much appreciated. Thank You!*