

EVALUATION PLAN

Introduction:

This plan is going to describe the evaluation of the running of the Cisco certified Network Associate Exploration courses in view of their potential future implementation of in the blended format at the Manukau Institute of Technology. This study will only looks at some aspects of the project, and it will be conducted by Hervé Carpentier.

The plan will introduce the background, purpose, audience for this study. It will also outline the questions to be addressed and the the method of data collection used. The timeline and budget will be considered.

Background:

The CCNA course is part of the [Cisco Networking Academy Program](#) and is has been preparing the students for the [Cisco Certified Network Associate certification](#) examination worldwide for more than ten years. The present implementation of the course at MIT is face to face, with all course materials accessible through a web browser from anywhere with an internet connection. At the present time, the four parts of this course are delivered over two semesters in a face to face environment.

The four part of this course are:

1. Networking Basics
2. Routers and Routing Basics
3. Switching Basics and Intermediate Routing
4. WAN Technologies.

The courses are level 5 and 6 courses.

The amount of material to study has increased greatly in recent years, and it has been decided at national level to deliver the full course over four semesters within the Bachelor of Engineering Technology program. The practical work involved in the course is supporting the theory and vice versa. The students can access the laboratories to complete the practical work at any time, 7 days per week, when the room is not used by a class.

The students can complete the formative assessments (end of chapter tests) 24*7; they get immediate feedback on their mistakes. To encourage them to complete these tests, we are the present time counting the marks towards a small percentage of the final results (10%). There are some simulator (Packet Tracer) activities available to help the students to assess their practical skills at the end of most chapters

The assessment structure includes a combination of on-line tests, a practical test and a paper examination.

Purposes:

The purpose of this evaluation is to

1. Assess the effectiveness of the present usage of eLearning tools.
2. Consider the use of further tools and activities to enhance and facilitate the student learning.
3. Identify if Blended learning would improve the delivery of the course to the students

The two following guidelines taken from <http://elg.massey.ac.nz> will be used:

a. TT6 Are online activities available that will enable students to assess their learning?

There already are several assessment tools used for the present format of the course (Appendix A). It would be good to consider if I further tools could be developed to enhance student learning. The redevelopment of the course means that there will be more time for the students to work to study the course and would therefore give use the opportunity to introduce more online activities that would enable them to enhance their learning.

b. The second guideline is inspired from TD1 "Is the use of e-learning appropriate to the intended learning outcomes?"

Is the use of blended learning more appropriate to achieve the intended learning outcomes?

We need to find out using a blended learning format would improve the present delivery of the course. It might be that the present use of eLearning tool in this context is not the best match for the learning outcomes.

Audiences:

The primary and secondary audiences of this evaluation are staff and students involved the teaching of the course. This will probably extended to the Cisco Account Manager looking after our academy since he or she will be involved in the approval for approving the format of the delivery of the course to blended learning.

A third audience will be the staff and students of the Evaluation of eLearning for Best Practice course, to which the evaluation will be submitted for assessment.

Decisions:

The findings of this study will be used to influence the decision on how to run the CCNA course from the first semester of 2010, and to decide which set of eLearning tools will be used to deliver it.

Questions:

The questions this study is attempting to answer are as follow:

Linked to TT6 *"Are online activities available that will enable students to assess their learning?"*

-Are the on-line activities used in the delivery of the course in the present format sufficient for students to assess their progress?

-Are there any other online tools I could use to enhance the students learning experience?

Linked to *"Is the use of blended learning more appropriate to achieve the intended learning outcomes?"*
-Would moving from face to face delivery to blended delivery improve the learning experience of the students and therefore improve their achievement, considering that a lot of the learning is already taking place on line?

However, it will be difficult to answer this question without comparing the results of the groups using the two methods. This is why the student questionnaire is going to focus on the following point:

-What are students' perceptions about the use of online learning?

Methodology:

This study will be a summative effectiveness evaluation of existing delivery methods with a view to redeveloping the course in a blended delivery format.

The paradigm used is the Eclectic-Mixed Methods-Pragmatic Paradigm. The model implemented is the multiple type evaluation model.

The plan is to use the feedback of CCNA students following the present format of the course, as well as the ideas and suggestions from colleagues in MIT or other institutions teaching the course to identify improvement and adjustment at an early stage in the redevelopment of the course.

It would be interesting to get the input of all the parties involved in the course. This is why the intention is to gather information and feedback from students presently on the course and from colleagues presently teaching the course in MIT and in other institutions if this is possible within the deadlines. The target of the survey will be the students presently enrolled on the course. The evening class students presently enrolled on "Network Principles 1" and "Data Communication 1" covering CCNA1 and 2 seem to be the ideal candidates because of the group size (18) and the group profile. The students are a mixture of full time and part time students.

The intention is to use anonymous questionnaires to get the information from students. It would be interesting to follow this up with a focus group to dig in further some of the answer. Using a focus group is useful as this method capitalises on communication between participants in order to generate data. Focus groups allow using the group interaction to generate data (Jenny Kitzinger, 1995)¹. There are always informal discussions taking place with the students, but it would be interesting to get a formal feedback from a learner point of view. Involving staff to give feed back on similar points will provide the study with an expert perspective. It will be useful to see if the two sources of information are providing similar information.

Sample:

The students involved are the present students involved on the CCNA course; the focus will be on the evening class of Network Principles 1/Data Communication 1 which is composed of 18 full time and part time students.

The colleagues who will be involved will be:

The other lecturer teaching the CCNA course.

¹

A colleague from other Cisco Academies, experienced in delivering blended learning

Instrumentation:

The questionnaires will be delivered to the students through the Blackboard-eMIT interface if possible.

Discussions through focus groups will be used to further develop some of the ideas/information gathered via the questionnaires if time allows it

The proposal will be discussed a with former colleagues involved in the teaching of the same course in an academy located in the U.K. This will probably be done through Skype to limit the costs

Limitations:

This study will look at the specific implementation of the CCNA course as taught at MIT.

Depending on how many students are willing to take parts in the questionnaire and discussions, the sample size might be small.

This project is only looking at some aspect of the course.

Logistics:

Hervé Carpentier will conducts all aspect of this evaluation; the eMIT support desk might be involved to help the evaluator to set the questionnaires up for the students.

Time Line:

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Week 9: Prepare and present the evaluation plan

Week 10 and 11: Conducting the evaluation

Weeks 12 and 13: Analysis of data and results

Weeks 14, 15, and 16 : write the evaluation report

Budget:

The budget was established considering the elements mentioned in the list supplied by the university of Tasmania (<http://www.utas.edu.au/pet/sections/costing.html> accessed on 10th May 2009).

Based on the average time spend weekly, the forecasted cost of this study will be in the region of \$3500.

The plan is to use electronic documents as much as possible, cutting the cost of printing and photocopying.

Skype will be used to contact the colleagues located abroad in order to minimise the costs.

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Questionnaire

The questionnaire used figures in Appendix B

For the relevant questions, an even number Liker scale will be used to avoid neutral "comfortable" option for the user to answer (Ron Garland, 1991)

References

Ron Garland
1991
The Mid-Point on a Rating Scale: Is it Desirable?
Marketing Bulletin, 2, 66-70, Research Note 3

Jenny Kitzinger

29 July 1995
Qualitative Research: Introducing focus groups
BMJ 1995 ; 311:299-302

University of Tasmania,

2005

Project Evaluation Toolkit,

<http://www.utas.edu.au/pet/index.html>, accessed 10th May 2009

<http://www.utas.edu.au/pet/sections/costing.html>, accessed 10th May 2009

Appendix A: eLearning tools available on the course

The learning tools used at the present time are:

1. The on-line curriculum
2. Packet Tracer 5.1 simulator
3. The Black board environment
 1. Used at the moment
 - i. Announcement system

- ii. Hosting of course documents
 - 1. Copy of the weekly Power point presentation
 - 2. Further study material
 - 2. Could be developed further
 - i. Discussion Board
 - ii. External links
 - 4. The Cisco learning environment
 - 1. Used at the moment
 - i. Access to the on-line course
 - ii. Access to the online class
 - 2. Not used so much at the moment
 - i. A message board
 - ii. List of historical classes
 - 3. No idea if used by students
 - i. Access to previous on-line class
 - ii. Access to new version of the on-line course for previous classes
 - iii. Professional development area
 - iv. Communities and chat area
 - 1. Forum and chat
 - 2. Alumni connection
 - 3. Careers opportunities
 - 4. Academy Netspace
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Appendix B : questionnaire used

A. The learning environment

a. Which parts of on-line learning environment are you using at the present time?

i. on-line course

1 daily 2 weekly 3 monthly 4 never

ii. message board in the Networking Academy site

1 daily 2 weekly 3 monthly 4 never

iii. announcement system on eMIT

1 daily 2 weekly 3 monthly 4 never

iv. presentation files uploaded by the lecturer

1 daily 2 weekly 3 monthly 4 never

v. discussion board

1 daily 2 weekly 3 monthly 4 never

vi. voice discussion board

1 daily 2 weekly 3 monthly 4 never

vii. e-mail

1 daily 2 weekly 3 monthly 4 never

b. Could you explain the reason why you are using or not using the resources mentioned above in the text box

i. on-line course

ii. message board in the Networking academy site

iii. announcement system on eMIT

iv. presentation files uploaded by the lecturer

- v. discussion board
- vi. voice discussion board
- vii. e-mail

c. Do you prefer learning from the course on-line or from a book?

1 Course on-line

2 Text Book

3. a mixture of both

4. neither

(Tick box option)

You can enter comments about your answer in the following text box:

B. Preferred mode of communication with the lecturer

a. How do you prefer to receive announcements about the running of the course from your lecturer? Please number each of the following options 1 to 6, with 1 being the favourite option and 6 the least favourite option

i. RSS (on-line feed -This automatically send news items in a reader).

ii. E-mail

iii. Message board on the Networking Academy site

iv. Announcement system on eMIT

v. Text messaging

vi. Other

b. Are you satisfied with the present accessibility to your lecturer?

i. Yes

ii. No

c. Explain why or why not in the following text box

d. Your preferred mode of access to the lecturer. Please number these options in order of preference, with 1 being the preferred option, and 5 the least preferred option.

- i. In person
- ii. Via email
- iii. Via instant messaging (on-line)
- iv. Via the telephone
- v. Via text messaging (SMS- Cell phone)
- vi. Other

C. Assessments

At the moment, we have at the end of each chapter an on-line test and a "skills integration challenge" (packet tracer activity)

a. What is your opinion about the content of the end of chapter tests?

- 1. I need a lot more questions in them
- 2. I need a few more questions in them
- 3. There are too many questions in them.
- 4. The number of questions is overwhelming

b. What is your opinion about the number of end of chapter tests?

- 1. I need a lot more of them
- 2. I need a few more of them
- 3. There are too many of them already
- 4. The number of them is overwhelming

c. Would you complete the end of chapter tests if they did not count towards your final grade?

- 1. None of them
- 2. A few of them
- 3. Most of them
- 4. All of them

d. We will now consider the number of Packet Tracer activities.

- 1. I need a lot more of them
- 2. I need a few more
- 3. There are too many of them already
- 4. The number of them is overwhelming

e. What is your opinion about the difficulty of the "skills integration challenge" (packet tracer activity) at the end of each chapter?

- 1. They are always too difficult to complete
- 2. They are challenging
- 3. They are easy to complete
- 4. They are far too easy to complete

f. Do you Are there enough ways for you to check on your own progress on the course?

yes
no

g. Indicate in the box any other activity you think would help you to self assess your progress

D. Future developments

We are considering running this course as a blended delivery course, with access to online learning so you do not have to attend every face-to-face session at MIT. You could still access the lab whenever it is not in use, 7 days per week.

a. Do you consider this as a progress?

Yes

No

b. How would you like to access the Lectures?

i. Accessing a video of the presentation from the internet

ii. Having a live online presentation weekly at a predetermined day and time (web conference).
You could access it from a computer at home or from MIT

iii. I prefer a traditional lecture

iv. Other methods?

c. How important would it be for you to have a weekly live Questions and Answers session?

1. Pointless important 2. Not important 3. Somehow important 4. Very important

d. Could you explain your answer in the following text box?

e. Do you think that a Blended Learning format would improve your learning?

1 Yes 2. No

d. If you answered yes, what do you think is necessary to successfully implement this format?

e. If you have answered no why do you think this is the case?

1. http://wikieducator.org/Evaluation_of_eLearning_for_Best_Practice