Evaluation

of the

ACE for Distance Delivery

Start Up

PROGRESS REPORT

Prepared by: Sue Folinsbee
Prepared for: the College Sector Committee
June 2008

College Sector Committee
for Adult Upgrading

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I. Introduction

This section provides an overview of the ACE Distance Delivery pilot project and outlines the evaluation goal and objectives of the pilot phase.

A. Background Information on the ACE Distance Delivery Course Development and Pilot[1]

In the winter of 2007, the College Sector Committee (CSC) worked with Ontario*Learn,* the online consortium of Ontario Colleges and the Embanet Corporation which hosts Ontario*Learn* courses. Ten English language courses were developed and eleven French courses are in the final development phase. The purpose of the project is to provide ACE training in both English and French to 300 learners across Ontario as well as to develop the support mechanisms and materials required to promote learner success.

There are two phases to the evaluation research. The first phase is to provide a progress report on the start-up including the course development and test instructional phase. The second phase will research and evaluate the pilot phase starting in July 2008 and ending in December 2008.

Before the actual pilot, there was a test instructional phase starting in March 2008. Eighty-five student volunteers taking ACE courses in English in the classroom were recruited from across Ontario to try out a course module in their area of study. During the test instructional phase the CSC used Embanet's test server to host the draft ACE courses. This was a test environment that lacks the full functionality available in the production environment that is being used for delivery during the Go Live phase starting on July 2.

B. Start up Phase Goals and Objectives

The overall goal of the research was to gather input and feedback from the course development process and the test instructional phase to inform and make improvements for the initial delivery pilot Phase starting in July 2008. The specific objectives of the research were to:

- find out what worked well and what could be improved about the course development experience

- identify what worked well and what could be improved about the ACE on-line courses

[1] See Appendix 1 for the Development of ACE on Line Flow Chart.

- learn what worked well and what could be improved about the instructional and learning experience

II. Evaluation Methodology

This section outlines how the research strategy was developed, the methods used to obtain data for this evaluation, and who the participants were. The overall methodology utilized was predominantly qualitative. The strategy for collecting data and feedback at this phase was planned by the researcher and project manager, Arlene Cronin.

Data Collection Methods and Evaluation Participants

Telephone interviews and an online questionnaire developed using the Survey Monkey tool were the main methods used to collect data about the course development process and instructional test for this project. All participants in the research were assured confidentiality. The data collection period was May 2008 until June 2008.

Data collection methods used for different respondents and participation numbers are outlined In Table 1. Generalizations from student feedback can not be made because the small numbers who completed the survey. However, their responses can shed light on some of the potential problems that other students might face in the future especially in conjunction with feedback from other stakeholders.

Table 1: Data Collection Methods and Participation Rates

Participants	Possible numbers to canvas for Research	Numbers participating in the Research	Data Collection Method
Course developers/ Professors[2]	10	10	Interviews
Students	85	6[3]	Survey Monkey questionnaire
Community College Faculty	110	27[4]	Survey Monkey questionnaire
Project management	2	2	Interviews
Total	**207**	**45**	

III. Findings

The findings are organized according to the following topics:

- the course development process
- test instructional phase
- characteristics of students who do well with on-line learning

A. Introduction

All course developers were experienced in their subject matter as classroom professors from a variety of community colleges. This group of professionals are also referred to as Subject Matter Experts (SMEs). Most SMEs developed the ACE on-line courses in their area of expertise, participated in the instructional test and will teach in the pilot phase from July to December 2008. SMEs represented a range of experience in on-line learning from no experience to being

[2] Three courses were not part of the trial instruction period—Biology, Apprenticeship Math and Computers.
[3] Students who completed evaluations were enrolled in Business Math, Physics, Chemistry, and Self Management/Self Direction. Most had completed one or two modules. Two had not completed a module. For four students it was their first on-line course.
[4] In order of frequency, guest faculty viewed Core Math, Communications, Chemistry, Self Management/Self Direction, Technology Math, Physics, and Business Math.

very experienced as on-line course developers and professors. Some had taken on-line courses but had not taught or developed them. Others had used blended approaches in their classroom.

In terms of being an exciting and positive experience, SMEs saw their work and ACE on-line as a way to reach adults wherever they are, especially those adults who face barriers in coming to the regular classroom. Comments showed that an important outcome of the development of ACE on-line is that it can serve as a unifying force for curriculum taught in community colleges in Ontario. At present, there are guidelines for what to teach, but colleges may approach delivery differently. Now all colleges will have access to the same up-to-date courses. This access for colleges was seen as "raising the bar." Some SMEs indicated that they found it interesting to share ideas and learn from their colleagues. Other developers felt a sense of accomplishment in creating their course, seeing it on line, and having it reviewed by their peers. Some people reflected on their own learning through their involvement in the project.

From a management point of view, completing such a large, complex project was seen as an accomplishment along with the opportunities it will create for learners. In addition, SMEs were seen as working together as a team in that they provided advice and shared ideas with one another. Most of the SMEs are continuing to instruct ACE on-line starting in July. There is also excitement and support from the colleges for the project. Another plus with ACE on-line is that academic upgrading through the ACE on-line program has been integrated into mainstream delivery. It will be offered through distance or continuing education departments in each college. An unanticipated benefit is that continuing education departments will provide more referrals to academic upgrading.

Guest faculty who reviewed the courses generally made favourable comments about them. Some people look forward to using the content in their own courses because they thought it was so good.

Like any new project in a development and start up phase, this project faced its challenges. Some of the broad project challenges focused on time lines and communication. For example, some respondents indicated that courses were not ready for testing by mid-February as planned. Instead, they were tested in March-May which was difficult because this was end of term for students and some professors involved in the project. In two cases, course developers came on board late to the project. This meant that they had to work within some very tight time lines and the courses were not ready for the test instructional phase. Three courses were not ready to be part of the instructional test period. Associated with testing the courses, it was time consuming to get information from, and enroll the students who would be participating.

The screening process to identify students who would volunteer to participate in the test instructional phase was described as uneven. Finally, a couple of colleges are not on board with ACE on-line as they see it as competition rather than complementary to their existing ACE classroom programs.

In some cases, people found the experience of creating their course and teaching it isolating. Even though they appreciated the workshops and communication they did have, they would have preferred more meetings, more constructive feedback from colleagues, and more formal, on-going communication such as their own forum where they could discuss challenges. Similarly, from a project management point of view, another day of training on on-line learning would have been helpful and provided more support to SMEs.

Some of the lessons learned from the point of view of the project's managers were "keep everything as simple as possible," and "be patient" as you move into something new. Be prepared for more complexities than you thought at first. It is also important to listen to the experts. Through the project development, it became clear that people are interested in moving in this new direction. ACE on line will allow all colleges to do blended delivery as well as work with a consistent set of courses across colleges.

The next steps in the process are to evaluate the next phase of instruction to:

- determine what supports students need and what supports work well
- find out how well the new assessment and counselling component works
- find out how well promotion of ACE on line worked
- identify which instructor practices worked and which did not
- discover what challenges new professors faced

B. The course development process

I welcomed the opportunity to develop the course because students have problems with the books. I wrote the course like I was talking.—**Subject Matter Expert (SME)**

This section is organized according to what went well about the course development process and what could be improved for another time. It provides feedback from the ten community college faculty SMEs who were course developers and the project managers.

i. What worked well in the course development process

SMEs were responsible for developing the content of their courses. They used their knowledge of what worked in the classroom and what they know about their students as a starting point for course development. From their own description, course developers worked with materials they already knew were high quality and worked well. They also researched materials and activities that would be suited to on-line learning and fun and interesting for students. In some cases, they created on-line materials and modules that would give students a refresher and orientation to the modules they would undertake in the course. From course developers' comments, the process of developing courses appeared to be rewarding.

It was rewarding in that developers were creating something that would be used by those students who do not have access to a classroom but also a quality, up-to-date program that all colleges would have access to. In some content areas, course developers worked back and forth and shared ideas while developing their courses. In addition, new and creative thinking with respect to on-line learning was generated. For example, in one science course experiments were identified that students could perform on line.

ii. Challenges in the course development process

This section describes some of the common challenges experienced in the course development process. The section also includes suggestions for how to make changes to the process for another time.

On-line course template

Some course developers were not certain whether or not they were developing their course in the right way for on-line learning. Both the course developers and project management indicated that a template, formal standards or example of a finished course at the beginning of the development process would have been helpful as a guide upfront. One person suggested having more communication with Embanet. She would have appreciated it if Embanet could have met with her to review the first module before she developed others. Having a template or alternative process would have prevented course developers from having to go back and fix things after the fact.

Resource materials

One of the common concerns that SMES expressed was finding the appropriate textbook for their courses. Textbooks were used for all but three of the courses. Some developers said that

had to make lessons more in-depth than they would have for the classroom and had to supplement the textbook with additional materials.

In some cases, researching and finding appropriate on line materials to use in courses such as copyright free pictures and diagrams and useful links to web sites for courses was not always easy. This was noted as a tremendous learning experience by one of the course developers.

From a management point of view, the on-line courses should not be text book based. The text book is seen as a barrier in terms of eventual cost to the student and the student's own learning. In the future, management would like to see a move away from textbooks. They would like to see professors translate what they need from the textbook to the instruction and exercises they do on line. They would also like to see on-line learning taught as if the course were live in the classroom. Although this has been worked out for the pilot in July, distributing textbooks to colleges was also difficult administratively during the test phase.

Timelines

Some developers found that the time frame for completed revisions set by Embanet was too tight.

C. The test instructional phase

This section outlines the feedback on components of the test instructional phase including the experience of professors, students, guest faculty and the project managers' suggestions for changes according to:

- students and their participation in the courses
- student interaction with the instructor and each other
- student support
- clarity of instructions and explanations
- course navigation
- technical difficulties
- course content
- course level

i. Students and their participation in the courses

Student profile

Overall professors said they knew very little about their students or what college they were from in this phase. They did not know, for example in the case of math, whether the person had taken the prerequisite course. Some professors wanted to get to know more about the students who enrolled especially if this was their first time on line. Some people were also concerned about being intrusive by asking too many questions to find more information out about their students. One instructor found out something about the students enrolled in her course because they were from her college. She invited these students to an in-person meeting to find out how she could support them. At the meeting she found out some of them were not comfortable with computers.

Student participation in the course

Eighty-five students from 17 community colleges voluntarily enrolled in the ACE on-line instructional test. A common theme from professors' feedback was that a certain number of students would enroll in the course but fewer came on line and even fewer completed course work. Professors generally worked with two to three students. These students worked through course activities, took tests, with a few of the students completing a course module.

The six students completing the Survey Monkey on-line questionnaire indicted that it took less than five hours or between five and ten hours to complete a module. They also noted that it took less than an hour or between one and five hours to complete an assignment. All participating students said they spent less than five hours a week on course work. All students thought the course workload was just right.

Professors were not able to find out why people dropped out or didn't start. Feedback indicated that this was an issue that needed to be addressed in the next phase of the project. Faculty said they tried to message or e-mail people to find out why they had dropped out or not started but few were able to find out. They indicated their disappointment with the low rate of student participation.

Faculty thought that the participation rate might be due to the lateness of the instructional test and the fact that ACE on line was not the primary focus for these students. Some professors thought that students were busy with their college classroom courses and other activities in their lives. One professor suggested providing a stipend or honourarium of $50 to $100 to each student. An honourarium might have encouraged concrete expectations of what students would do and complete.

One professor suggested that faculty need to know more about the enrolment process and how to advise students if they want to enroll in an ACE on line course. The professor had two students who wanted to be enrolled in her course.

ii. Student interaction with the instructor and each other

SMEs generally indicated there was little on-line interaction with their students overall and none with other students. They found this frustrating and disappointing. It was common for professors to say that no students used the on-line forums and that they asked few questions. Professors indicated that they tried to communicate with students through posting welcome messages and announcements in forums, by e-mailing students several times, and by letting them know when they would be on line. Professors also asked for feedback. However, often, other than a few questions or comments from students, mostly nothing came of it. Some faculty comments indicated that students worked very independently, very smoothly and did not ask for help. Other professors stressed the importance of student interaction with each other and with the professors in on-line delivery.

Professors understand that it is intimidating for students to be the first to post. Therefore, they posted messages encouraging students to post back. One comment indicted that the professor wanted to give students a sense of belonging but wasn't sure what the role of the professor was around communication. Other comments suggested that not hearing back is typical of upgrading students as is the fact that they may show interest in a course but not finish it. Some professors wondered if students were asking their classroom teacher for help. One person indicated that the classroom and ACE on line should be totally separate. She indicated that it is confusing for the student to have input from two professors.

Comments from one course developer without students indicated that she felt that getting students to talk about experiences on the discussion board would work as a beginning place for people to share information about themselves and for her to get to know them. She also indicated that it was part of their assignments to talk to others and that she wanted to make sure to talk to them on a regular basis— at least once or twice a week. She stressed the importance of letting students know when she would be on line.

Some of the suggestions from professors for tracking and communicating with students in the future were to:

- set up check points every three weeks to see how things are going

- set up a forum to discuss certain teaching points with students (didn't set up a forum this time)
- encourage students to use the discussion board more
- suggest a virtual classroom where students can come together in groups to serve the need to be more interactive and auditory
- have a professional CSC e-mail for each ACE on line instructor; link it to the server in the event there is a problem
- have 'extreme interaction' with students and let them know you are there for them

Half the students who completed the Survey Monkey on-line questionnaire felt that they did not have enough interaction with the instructor but those who did thought it was helpful. Most of those replying did not think the forums contributed to their learning.

From a project management point of view, there was not enough discussion between students and professors or connection to the forums. Like the professors, project managers found this aspect of the test disappointing. From their point of view of best practices in on-line learning, there always needs to be a discussion piece in forums. This is a key piece that needs to be built into the next phase. Had there been time, another day on quality on-line learning would have been helpful for the SMEs. A recommendation is to create an on-line orientation package for SMEs- that includes a piece on forums and the discussion piece with a focus on the quality work of others.

iii. Course navigation

What worked well

Some SMEs thought the layout of topics in Moodle, the platform used were great along with the forums. They liked the layout and the way they were able to organize the modules into chunks. They indicated that navigation was very clear.—that you can move back and forth. One student indicated he liked have the parts of the lesson available on one side so he could access them whenever needed. Comments from some college faculty were favourable about Moodle— they saw Moodle as a powerful, versatile tool.

What the challenges were

Some limitations and navigational problems were identified by SMEs, students and college faculty.

Messaging system

One limitation was the messaging system. The SME who identified this as a problem noted that if you used the public messaging system to respond to students, all students could see the response. Embanet advised her to use e-mail to communicate privately with students. She did this and added the e-mail to her profile. However, it was unclear to students which they should use to communicate. As a result, the SME found messages from students through the messaging system after the fact. She had expected them to use e-mail. The same SME also noted it was difficult to find messages. She felt Embanet should have disabled the messaging if professors were not intended to use it.

One student indicated that it was difficult to figure out how to send an assignment to the instructor. When he tried to send an assignment, it would not send.

Testing

Testing was a challenge identified by the majority of SMEs.. One issue identified was that professors do not have the capability to release a test on an individual basis. If the instructor releases the test to one student, all the students see it. In this way, students who are not ready to take the test, see the questions ahead of time. People thought this lowers the integrity. One SME dealt with this issue by hiding all the tests and then released it on a time and date when the student was ready. The SMES thought that the validity and monitoring of tests so that students cannot cheat was an issue that needed to be addressed.

From a management perspective, testing is an issue that faculty need to think about differently beyond traditional forms like exams. In the case of security of exams, students can write an exam that is invigilated by a responsible professional or go to a college test centre. However, a new approach is needed that shows that students can apply what they have learned as opposed to just testing their knowledge.

Moving from one area to another

Some SMEs saw that navigating from one topic to another might be confusing. It was difficult to know where to go next, and the Moodle platform does not keep track of what students have previously looked at in any detailed way. They also noticed that you could not link from the last topic before a test to the test. They felt that students should be able to link from the last topic to a test rather than having to go back to the opening.

Both students and guest faculty indicated that there were some difficulties with navigation. One student thought it was difficult to navigate through modules, and others had problems with on-line lab work. A comment from faculty also suggested that lessons in the Communications course were difficult to find. On-line videos and lab experiments were hard to find or did not open properly. In addition, one student found the lab space too small on the screen and would like to see it bigger. One student clicked on textbook links that took him to unrelated sites.

Suggestions from students and guest faculty were to label modules properly, make headings clearer and simplify the navigation process.

One guest faculty suggested that the reading window should be enlarged to fill up most of the screen so the reader does not have to scroll back and forth as well as up and down so much.

More guidance

One suggestion from SMEs and guest faculty was to have an introduction sheet or video for Moodle that includes how to move around on the web site and ways to make students more comfortable. This should especially be written for those students with no on-line experience. The instruction sheet should be given to all students in all courses. Comments from SMES and guest faculty indicated that there should also be consistency in navigation and course format in all ACE on-line courses.

A suggestion from project management was to provide more guidance to SMEs on how to think about navigation differently and tie it together. This will be easier now because there are finished courses that can serve as a guide.

iv. Clarity of instructions and explanations

Overall SMEs thought the instructions and explanations were clear based on the lack of questions or the feedback from students. The majority of guest faculty reviewing courses also thought instructions and explanations were clear.

Some SMEs thought that students might have needed more steps in a process for on-line learning to refer to in the modules. This is something that could be added in the future. Project managers also acknowledged that there are bits missing with respect to instructions and explanations. It was noted that each instructor would address these issues in the next instructional phase.

Students thought that instructions needed to be improved. One person noted that he followed instructions and got answers wrong even though he was using the right equations. Another person found a web site difficult to read and was unsure how answers were calculated on line.

One comment from a guest faculty member suggested that there should be clearer instructions for using the textbook in the course he reviewed.

v. Student support and tracking

SMEs were not sure based on lack of messages from students, or did not think that students had enough support. One person said that ideally she would have met with her students two or three times in the first few weeks. Professors who checked on line to see if students were on line found that they seldom were.

Four out of six students did not feel they got enough support to be successful in their learning. Two people indicted they prefer face-to-face classroom learning. A third person found the experience of on-line learning frustrating because he could not understand what the course was getting at.

The project will be more directive about student support and student interaction in the next phase. There will also be an assessment and time line support counsellor who will work with students starting in September. In addition, professors will be expected to have on-line office hours, early in the day and late in the day. The importance of tracking the support provided to students was highlighted by project management.

vi. Technical difficulties

SME indicated that there were some technical difficulties at the beginning of the instructional period and that these were corrected whenever possible by Embanet. For example, in one case an instructor did not know students had handed in work. In other cases, students and guest faculty had difficulty logging on. One instructor noted that she helped a student who was having trouble with his password. In addition, some web sites were slow. The issue of "slowness" will improve in the next phase.

All students acknowledged that they had had technical difficulties. These difficulties included logging on, accessing on line videos and experiments, sending assignments and getting into the right areas. One person was not able to minimize the page she was working on without having to log in all over again which was very frustrating. The person who had difficulty accessing on line videos and experiments said his difficulties were not resolved.

vii. Course content

It is extremely useful. It has given me a number of excellent ideas that will enhance my program and make our program better. – **Guest faculty**

What is working well

SMEs generally thought their course content was at the right level, the right topics, interesting for students and the correct workload , etc. but were not really sure given the small numbers of students participating and the lack of feedback.

Guest faculty who reviewed the courses generally thought the courses were complete, at the right level, with an appropriate work load and had appropriate resources for assignments. They commented favourably on the Communications course, course objectives, resources, informational content. They also liked the varied materials, structure of materials, the varied and attractive format, graphics, the integration of Essentials Skills into courses and the science experiments. Some responses indicated that faculty will use the ACE on line materials for in-class students.

Two students indicated they liked the course textbooks.

Suggestions for improvement

More interactive learning

Some SMEs would like to see video, audio and more animation added to their courses particularly to address different learning styles and assist those who do not like reading. Another comment suggested the need to make sure that modules are not too long. Guest faculty made similar comments. Some would like to see courses more interactive, less static with more multi media. They would also like to see less text as the fear is that the amount of reading might be an obstacle to students.

One comment stressed the importance of not using technology to put a correspondence course on a screen instead of a piece of paper. He felt that technology needs to be used as a teaching tool. He felt there should be more teaching activities on line.

Course material

A few SMEs indicated that their courses were too long or had too much material. They noted that this would be worked out in July. One SME hoped students could challenge and get credit for some of the modules from their previous studies. A few concerns from guest faculty relate to the amount of material that students will need to cover.

Generally, students found the courses difficult or relatively difficult. Four students found the course material not that useful. One guest faculty thought the material he reviewed needed to be more accessible to the average upgrading learner.

Guest faculty made suggestions for improvements that included:

- reviewing whether literature is necessary in the Communications course for postsecondary
- avoiding using fractions in early units to avoid making students feel anxious
- avoid asking students to mail assignments—defeats purpose of on-line focus
- use Hyperlinks to give users small breaks from reading; they can navigate between groupings of content

D. Characteristics of on-line learners [5]

SMEs, project managers and guest faculty were asked to comment on what the characteristics of those learners are who engaged and do well in on line learning and those who do not.[6]

Respondents generally spoke to the characteristics of successful on-line learners rather than those who do poorly. Across the board, people saw on-line learners as those who 1) come from remote areas with no access to in-class learning, 2) are stay-at-home parents, 3) are busy and like the convenience of on-line learning, 4) have transportation problems and 5) need courses that are not offered at the local community college.

Overwhelmingly, successful on-line learners are described as people who are committed, highly motivated, self-directed and mature. They are also described as people who have long-term goals and a career direction. They may be younger with computer abilities rather than reading abilities or they may have reading skills but no on-line experience. Successful on-line learners

[5] This topic will be explored fully in a literature review that will be complete by July 2008.

are also described as risk takers, those who are not afraid to ask questions. Some SMEs noted that those people who asked questions did better than those they had no communication with.

In the case of ACE on line, the importance of an initial assessment to ensure students have the skills to complete the course, and the ability to make the time commitment (8 to 10 hours a week) were cited by project management as critical to success.

Obviously, the opposite to what respondents describe as the characteristics of successful on-line learners are those that will not do well. Poor reading skills or poor skills in English as an additional language were pinpointed as areas that might hold a person back. However, comments supported the need for audio, video, and good student support to help compensate for this gap.

IV. Evaluator's Analysis

The results of the research show that in spite of the challenges along the journey, it was a tremendous accomplishment to complete the ten ACE on-line courses, and actually get the opportunity for feedback from students, professors and guest faculty before the actual piloting of the courses begin in July. Unfortunately, student participation in the test instructional phase and this research was low. However, student comments in conjunction with feedback from SMEs, guest faculty, and experienced project managers point to some common concerns. These common concerns provide clear direction for needed changes and areas to focus on in the next phase.

The results show that there are several areas to focus on in the next phase in the areas described below.

A. Student support and tracking

The feedback shows that the need to increase student support and track students to find out how the support is working is paramount. It will be critical to find out what kinds of support improve student satisfaction and retention and to identify the most common kinds of issues that students face in ACE on-line learning that they need assistance with. This will be particularly important in the early weeks of the courses when students are most likely to be discouraged and drop out. The project has added more support in terms of an assessment and counselling person. It will be important to find out how this support is working in the next phase. Keeping track of why students discontinue their courses will also be critical for future planning. Clear direction on

expectations with respect to instructor support of and interaction with students will also be helpful.

B. Student interaction with professors and each other

Another area associated with student support is student interaction with the instructor. The findings indicate that professors, especially those who are new to on-line learning need more information about strategies that can engage their students in conversation throughout their learning in a way that will be helpful. This kind of engagement will also be helpful in letting professors find out more about their students and how they can support them. This information will help to provide a profile of the characteristics of ACE on-line learners. The research in the next project phase should also track the demographics and characteristics of these learners. Professors also need more guidance in how to engage students as a group in their course work and how to create more student discussion. Professional development opportunities and more formal opportunities for professors to share strategies and best practices will be helpful.

C. Clarity of instructions and explanations

The research identified both general and specific areas where clearer instructions and more explanations are needed.

In a broad sense, both students and faculty need an orientation package to Moodle for their different needs as users and professors. This package could be paper or video based and needs to cover the different aspects of Moodle, navigating within Moodle, and for professors using Moodle as a teaching tool.

In addition, there are specific gaps in instructions and explanations that related to different activities and modules within courses. In places where these gaps have been identified, they should be addressed. New gaps need to be tracked and addressed as they come up during the pilot phase starting in July.

D. Navigational and technical issues

Respondents in the evaluation identified areas where navigation in courses is difficult. These difficult areas include moving from one area to another, sending assignments, linking to web sites and tests. Other issues concern the size of screens for reading text and doing labs. These problematic areas should be addressed in the orientation package on Moodle for both students and faculty or changed wherever possible.

E. Content

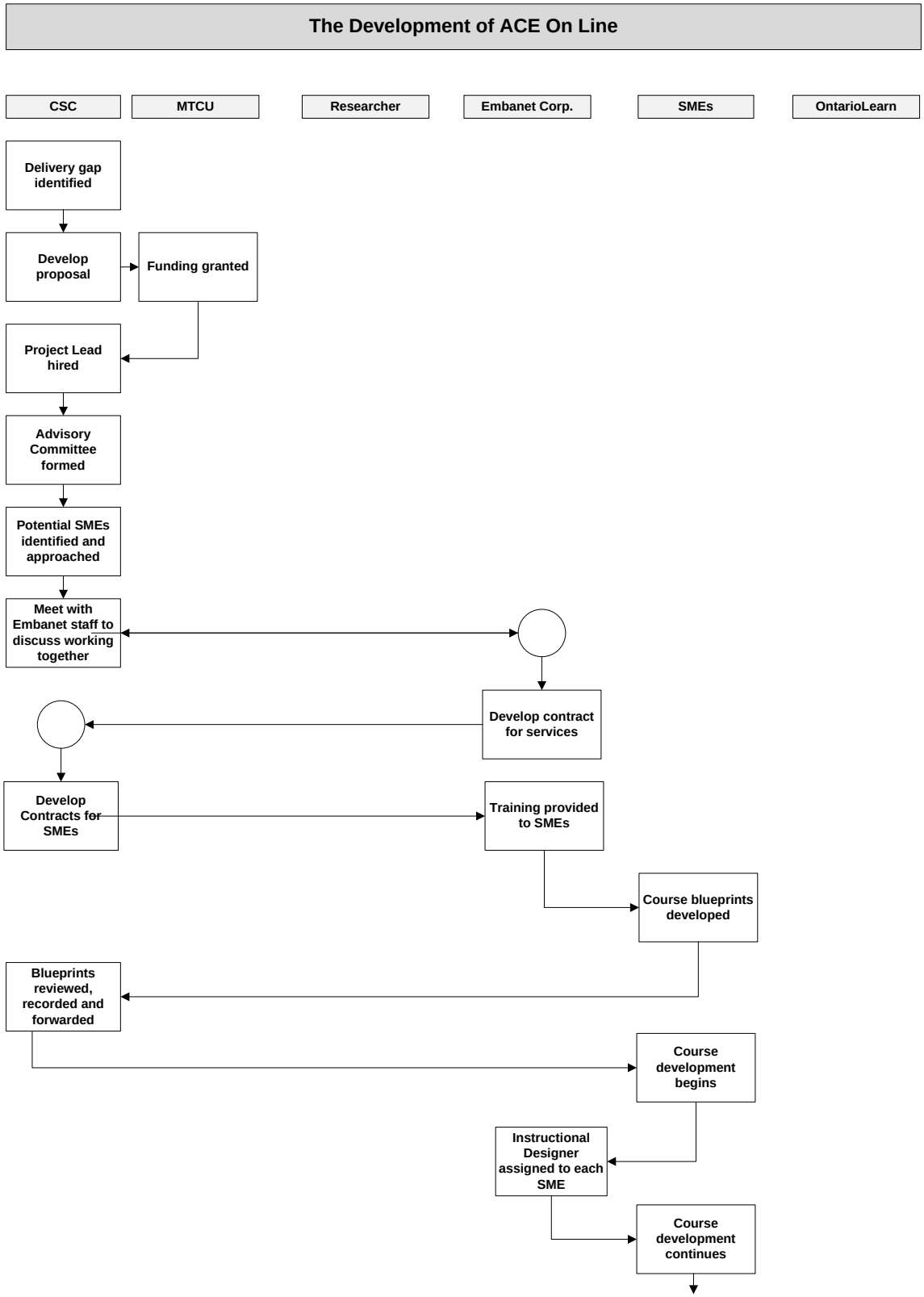
The most common findings from this research are concerns that some of the content needs to be more interactive and less text-based to appeal to more learning styles and support those who are poor readers. Another area that needs to be monitored in the next phase is course and module length to see if courses need to be shortened or modules broken down into shorter components.

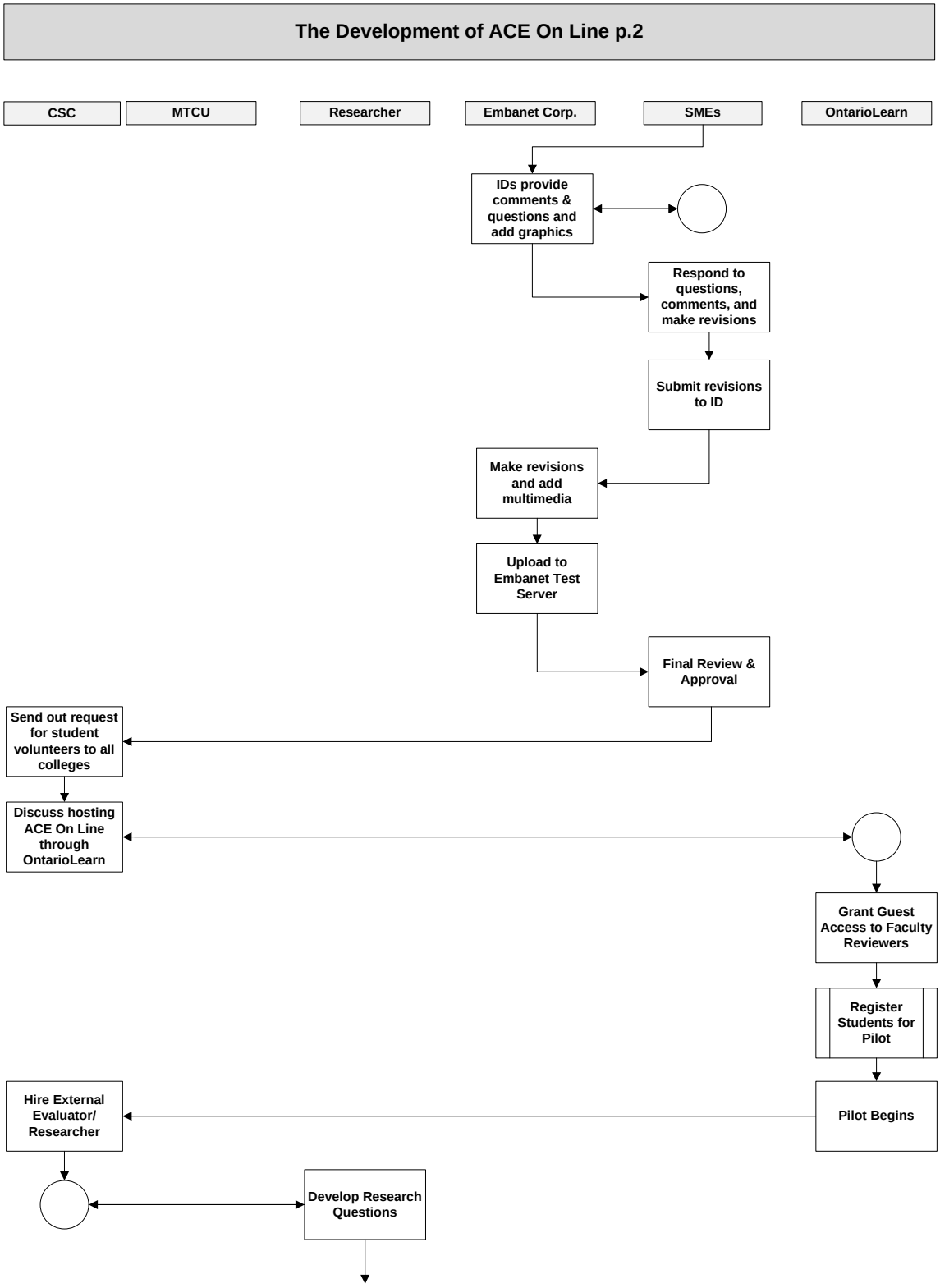
Testing security is an issue of concern from SMEs that should be explored and addressed with some clear guidelines for professors.

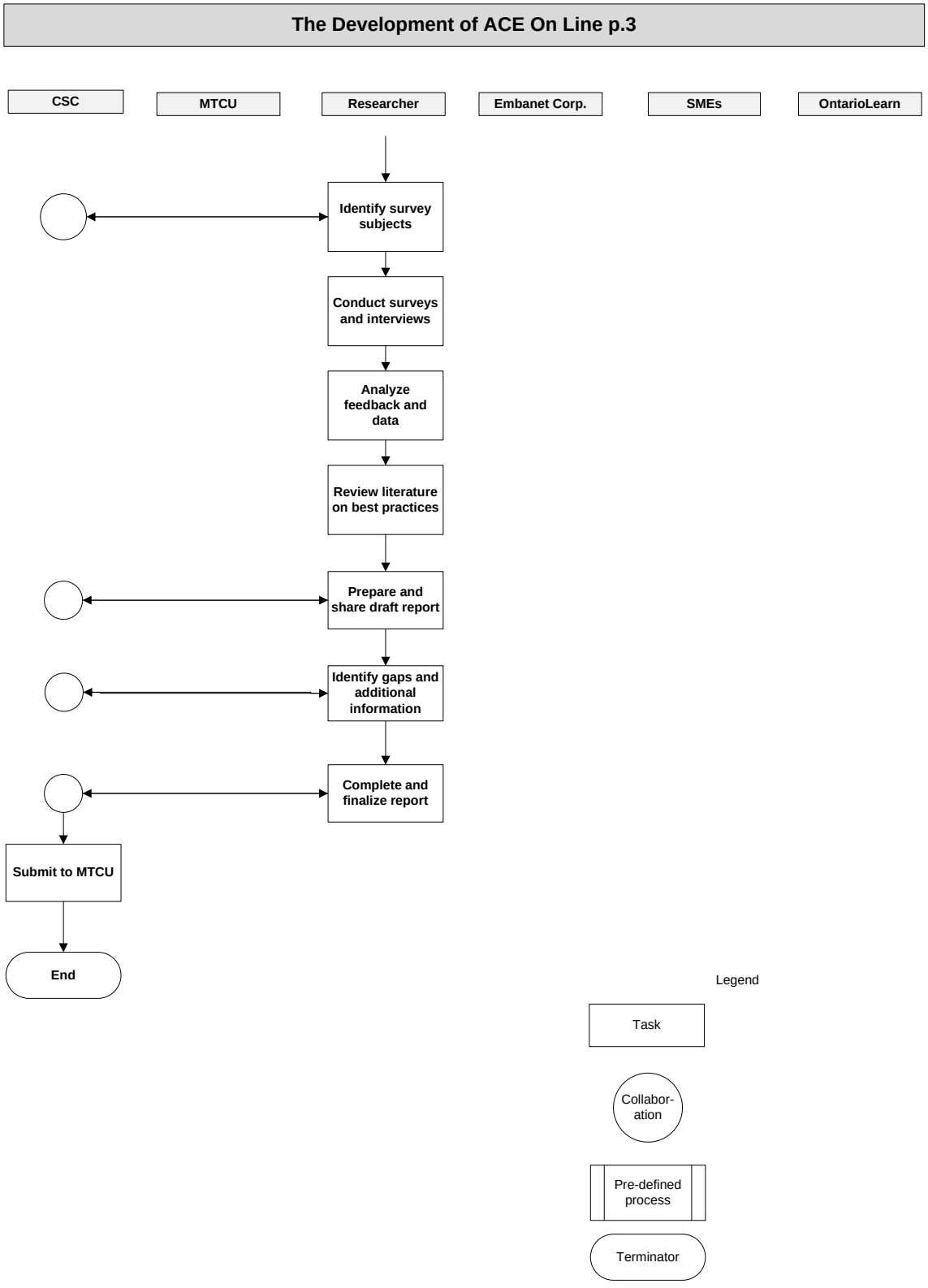
V. Conclusion

Overall, the findings of the evaluation show that ACE Online project has accomplished a great deal both developmentally and through the instructional test. It has developed the required courses and tested some most of them in a number of different ways that have provided similar results. The findings point out specific areas of ACE Online that are working well along with areas that need to be reviewed for changes and improvements in the future.

Appendix 1: The Development of ACE On Line Flow Chart


The Development of ACE On Line
CSC
MTCU
Researcher
Embanet Corp.
SMEs
OntarioLearn
Delivery gap identified
Develop proposal
Funding granted
Project Lead hired
Advisory Committee formed
Potential SMEs identified and approached
Meet with Embanet staff to discuss working together
Develop contract for services
Develop Contracts for SMEs
Training provided to SMEs
Course blueprints developed
Blueprints reviewed, recorded and forwarded
Course development begins
Instructional Designer assigned to each SME
Course development continues


The Development of ACE On Line p.2
CSC
MTCU
Researcher
Embanet Corp.
SMEs
OntarioLearn
IDs provide comments & questions and add graphics
Respond to questions, comments, and make revisions
Submit revisions to ID
Make revisions and add multimedia
Upload to Embanet Test Server
Final Review & Approval
Send out request for student volunteers to all colleges
Discuss hosting ACE On Line through OntarioLearn
Grant Guest Access to Faculty Reviewers
Register Students for Pilot
Pilot Begins
Hire External Evaluator/ Researcher
Develop Research Questions


The Development of ACE On Line p.3
CSC
MTCU
Researcher
Embanet Corp.
SMEs
OntarioLearn
Identify survey subjects
Conduct surveys and interviews
Analyze feedback and data
Review literature on best practices
Prepare and share draft report
Identify gaps and additional information
Complete and finalize report
Submit to MTCU
End
Legend
Task
Collabor-ation
Pre-defined process
Terminator

Appendix 2: Data Collection Tools

Survey Monkey On Line Questionnaire for Students

1. Overview

Thank you for participating in the ACE On Line Pilot Project. Now that the pilot period is over, we would like you to provide us with feedback on you experience with ACE On Line.

Please complete this evaluation as fully as possible. Since ACE on Line is at the pilot stage, your feedback will be important in helping us make improvements to the courses for other students. Your responses to this evaluation is confidential. Your name will not be used in the evaluation results.

1. 1. Please indicate which ACE on-line course(s) you participated in. (Choose all that apply.)

- ☐ Core math
- ☐ Business math
- ☐ Technology math
- ☐ Physics
- ☐ Chemistry
- ☐ Self Management/Self Direction
- ☐ Communications

2. Which module(s) did you complete? (Choose all that apply)

- ☐ Module 1
- ☐ Module 2
- ☐ Module 3
- ☐ Module 4
- ☐ Module 5
- ☐ Module 6
- ☐ Module 7
- ☐ Module 8
- ☐ Module 9
- ☐ Module 10
- ☐ I didn't complete any modules.

3. Is this your first on line course?

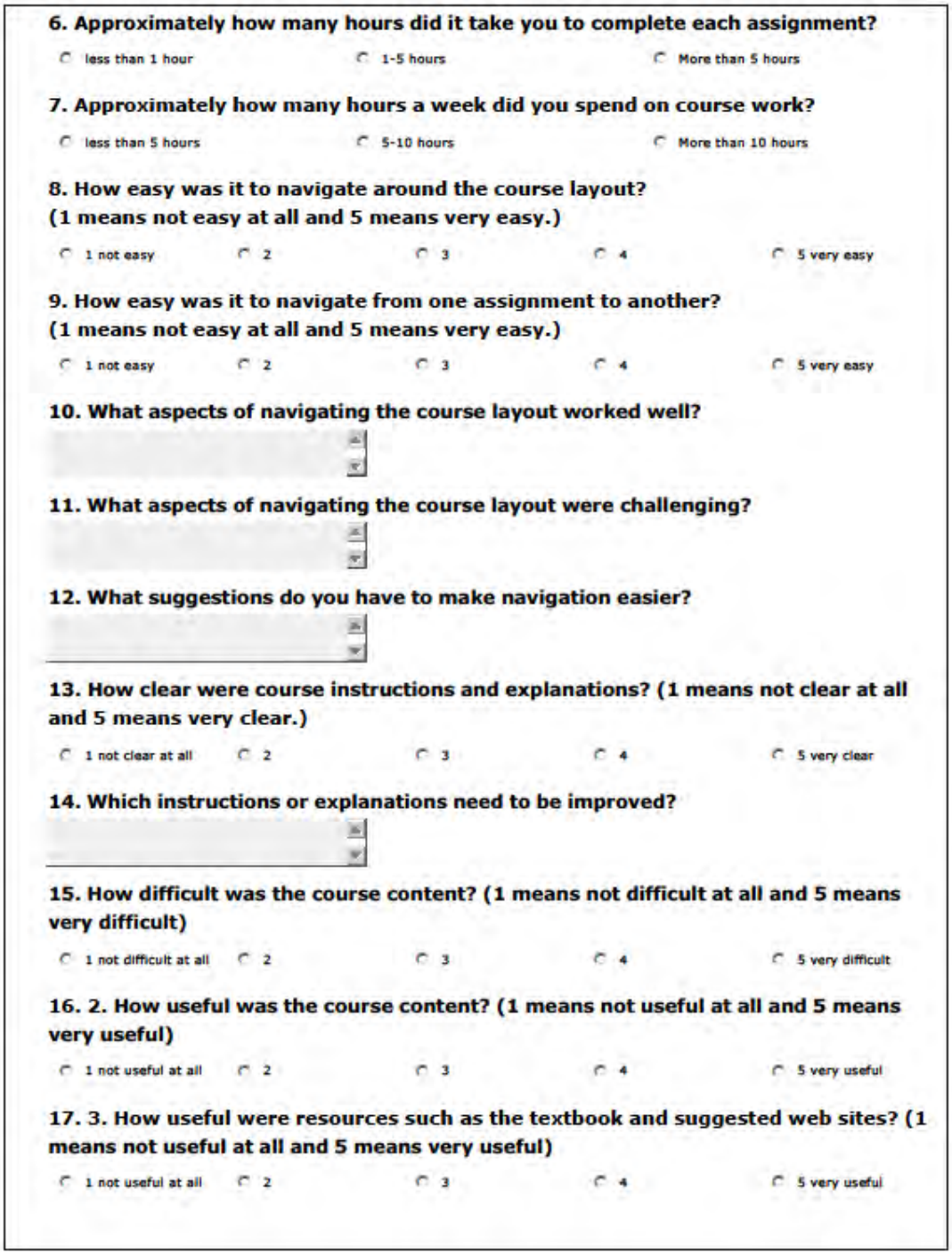
○ Yes ○ No

4. If yes, how many on-line courses have you taken before?

○ 1 course ○ 2-3 courses ○ More than 3 courses

5. Approximately how many hours did it take you to complete each module?

○ less than 5 hours ○ 5-10 hours ○ More than 10 hours



6. Approximately how many hours did it take you to complete each assignment?

○ less than 1 hour ○ 1-5 hours ○ More than 5 hours

7. Approximately how many hours a week did you spend on course work?

○ less than 5 hours ○ 5-10 hours ○ More than 10 hours

8. How easy was it to navigate around the course layout?
(1 means not easy at all and 5 means very easy.)

○ 1 not easy ○ 2 ○ 3 ○ 4 ○ 5 very easy

9. How easy was it to navigate from one assignment to another?
(1 means not easy at all and 5 means very easy.)

○ 1 not easy ○ 2 ○ 3 ○ 4 ○ 5 very easy

10. What aspects of navigating the course layout worked well?

11. What aspects of navigating the course layout were challenging?

12. What suggestions do you have to make navigation easier?

13. How clear were course instructions and explanations? (1 means not clear at all and 5 means very clear.)

○ 1 not clear at all ○ 2 ○ 3 ○ 4 ○ 5 very clear

14. Which instructions or explanations need to be improved?

15. How difficult was the course content? (1 means not difficult at all and 5 means very difficult)

○ 1 not difficult at all ○ 2 ○ 3 ○ 4 ○ 5 very difficult

16. 2. How useful was the course content? (1 means not useful at all and 5 means very useful)

○ 1 not useful at all ○ 2 ○ 3 ○ 4 ○ 5 very useful

17. 3. How useful were resources such as the textbook and suggested web sites? (1 means not useful at all and 5 means very useful)

○ 1 not useful at all ○ 2 ○ 3 ○ 4 ○ 5 very useful

18. How appropriate was the course workload?

○ too light ○ just right ○ too heavy

19. What suggestions do you have for improving the course content, resources and workload?

20. Did you have enough interaction with the instructor?

○ Yes ○ No

21. Did the instructor answer your questions and concerns in a timely fashion?

○ Yes ○ No

22. How helpful were your interactions with the instructor?(1 means not helpful at all and 5 means very helpful)

○ 1 Not Helpful at all ○ 2 ○ 3 ○ 4 ○ 5 Very helpful

23. How well did the forums contribute to your learning?(1 means not well at all and 5 means very well)

○ 1 Not well at all ○ 2 ○ 3 ○ 4 ○ 5 Very well

24. Did you have any technical problems during the course?

○ Yes ○ No

25. If yes, how were the technical problems resolved?

26. Overall, did you receive enough support to be successful in your learning?

○ Yes ○ No

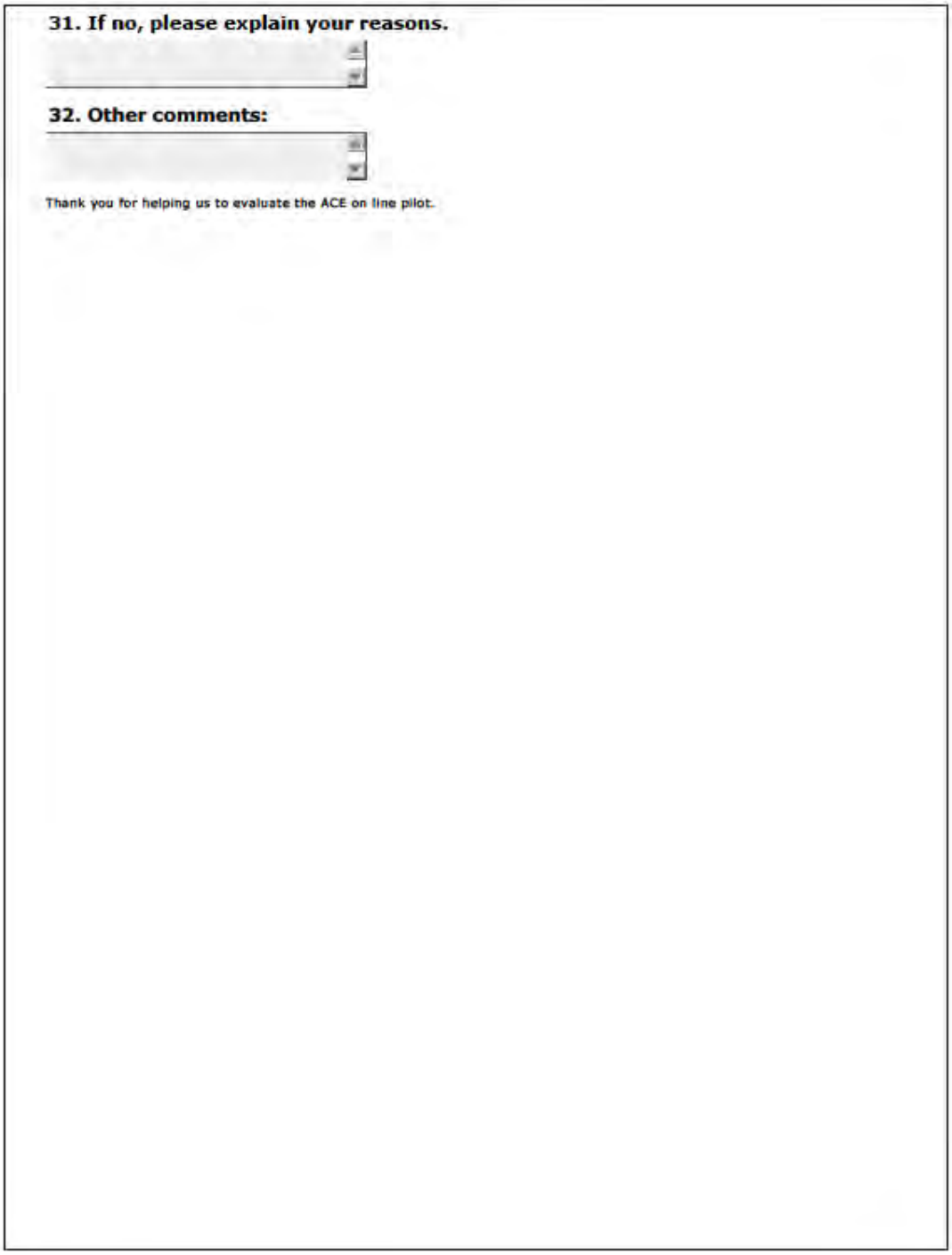
27. How can supports to on-line ACE learners be improved in the future?

28. What aspects of your ACE on line course worked the best?

29. What would you like to see improved about your ACE on line course?

30. Would you take another ACE On Line course?

○ Yes ○ No

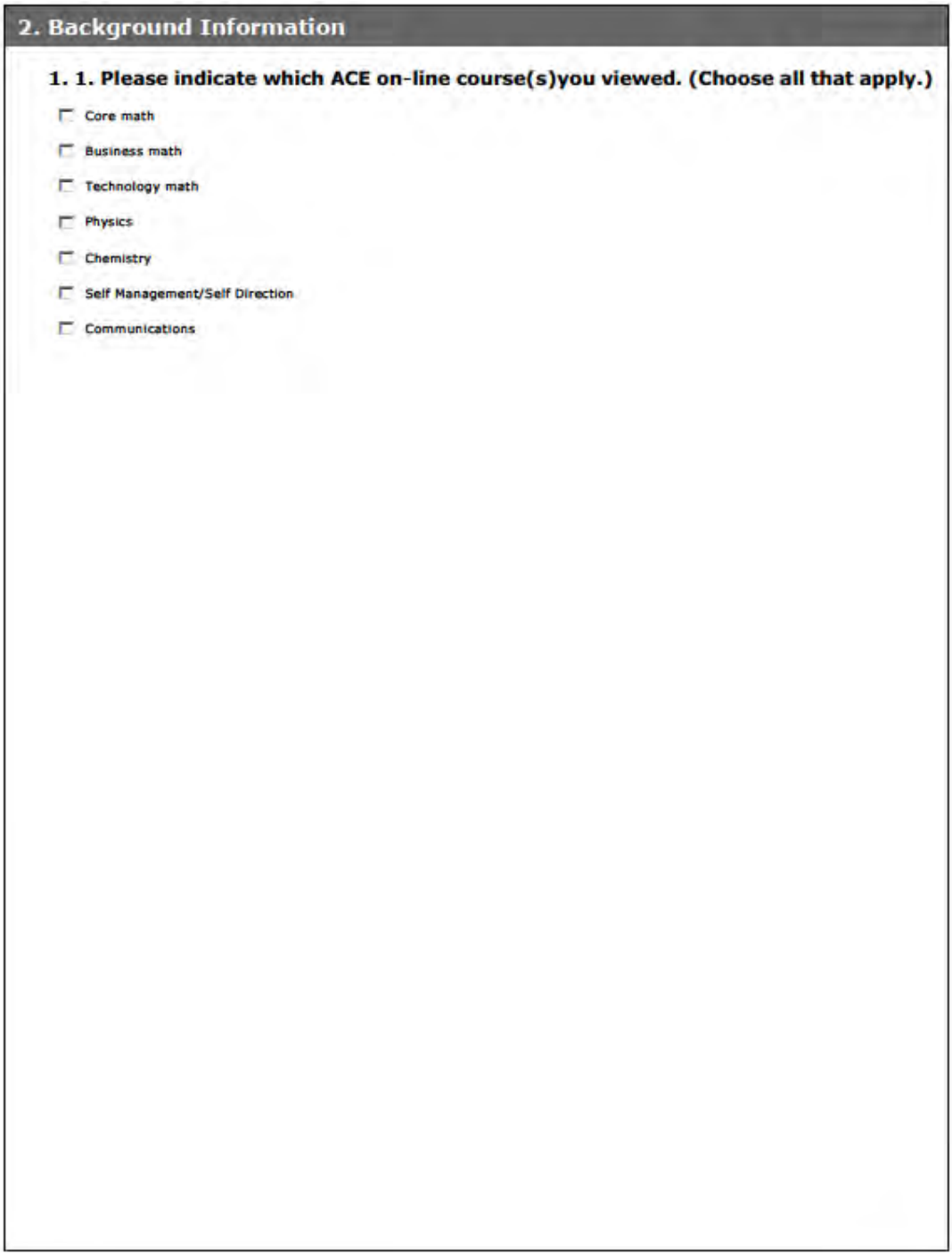

31. If no, please explain your reasons.
32. Other comments:
Thank you for helping us to evaluate the ACE on line pilot.

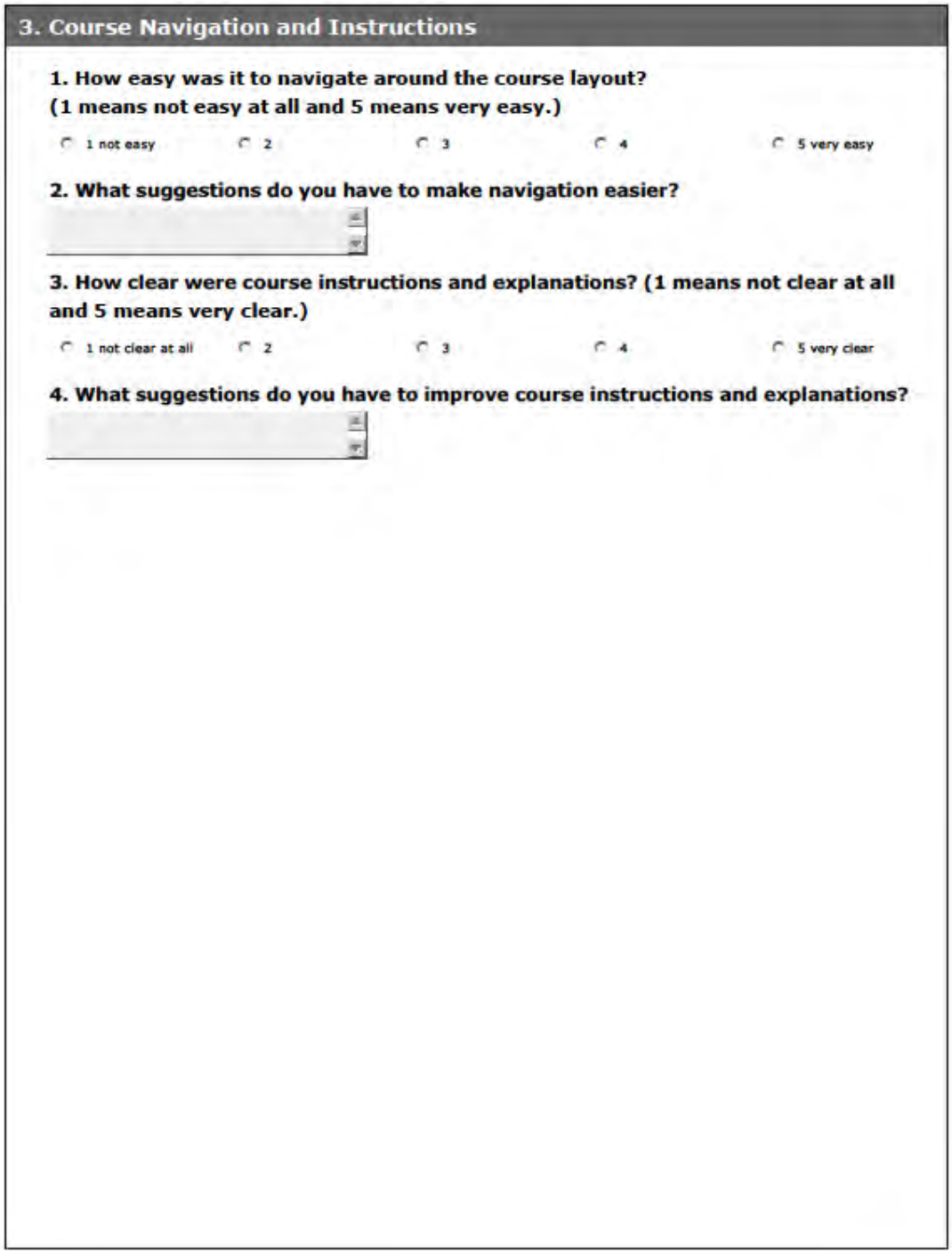
Survey Monkey On Line Survey for Guests (Colleges)

1. Overview

Thank you for viewing the draft material from the the ACE On Line Pilot Project. Now that the pilot period is over, we would like you to provide us with feedback on your experience with ACE On Line.

Please complete this evaluation as fully as possible. Since ACE on Line is at the pilot stage, your feedback will be important in helping us make improvements to the courses. Your response to this evaluation is confidential.


2. Background Information
1. 1. Please indicate which ACE on-line course(s)you viewed. (Choose all that apply.)
Core math
Business math
Technology math
Physics
Chemistry
Self Management/Self Direction
Communications


3. Course Navigation and Instructions
1. How easy was it to navigate around the course layout?
(1 means not easy at all and 5 means very easy.)
1 not easy
2
3
4
5 very easy
2. What suggestions do you have to make navigation easier?
3. How clear were course instructions and explanations? (1 means not clear at all and 5 means very clear.)
1 not clear at all
2
3
4
5 very clear
4. What suggestions do you have to improve course instructions and explanations?

4. Course Components, Content, and Workload

1. Is the course content at the appropriate level?

- ○ Yes
- ○ No

2. Is the course content complete?

- ○ Yes
- ○ No

3. What content would you add or delete?

4. What content works well and what needs improvement?

5. Are the course resources appropriate for the assignments?

- ○ Yes
- ○ No

6. Is the assignment workload appropriate?

- ○ Too light
- ○ About right
- ○ Too difficult

7. What suggestions do you have for improving the course content, resources,or workload?

8. Do the forums work as an opportunity for learning and learning support?

- ○ Yes
- ○ No
- ○ There were no forums.

9. Is there enough overall support for students built into the courses?

- ○ Yes
- ○ No
- ○ I Don't Know

5. Course Overview Questions

1. What did you like best about the course(s) you viewed?

2. What are the most important improvements that need to be made to the course (s) you reviewed?

3. How useful will the ACE On Line material be to you and the students in your program?

4. Please describe the characteristics of students that you think would be most likely to participate in ACE On Line in the future.

5. Other comments:

Thank you for helping us to evaluate the ACE On Line pilot.

Interview Questions for ACE On Line Pilot Leaders

1. What is your role in the ACE on line pilot?

2. What were you hoping this pilot would achieve? How has it met/not met your expectations?

3. How were students selected for the pilots? Please describe the students who were in the courses in terms of demographics and their experience with on-line learning. Were these the right students?

4. How were course developers/instructors selected?

5. What has been most exciting about being involved in this project?

6. What has been most challenging?

7. How do you think course developers/instructors would rate their experience in the pilot ACE on line course(s) on a scale of 1 to 10, 1 being poor and 10 being excellent? Why do you give this particular rating? What about students?

8. Overall, what aspects worked best about the pilot?

9. Overall, what aspects of ACE on line need to be improved for the next phase? How will you do this?

10. What aspects of navigating the course layout worked? What aspects were difficult? How can these difficulties be resolved?

11. How clear did students find the course instructions and explanations? What would you change for future courses?

12. How well did the course content work in terms of 1) appropriateness of difficulty level of the content, 2) student interest, 3) completeness, 4) workload, 5) tests, 6) resources? What would you do differently next time?

13. How much interaction did students have 1) instructors and 2) with each other? What worked well and what would you do differently?

14. Was there enough overall support for students to be successful? What supports worked well? What, if any, additional supports do they need?

15. What kinds of technical difficulties did students experience? How were these resolved?

16. How well did the forum work as a support for learning?

17. What did you notice about the characteristics of students who do well with on line learning? What about those who do not do as well?

Interview Questions for ACE On Line Pilot Course Developers/Instructors

Warm Up

1. What courses were you responsible for in the ACE on Line pilot?

2. Have you been involved with on line instruction before this? If so, how?

3. Can you tell me about your role in the pilot: first as an online course developer and then teaching the pilot?

4. Please describe the students who were in the course in terms of demographics and their experience with on-line learning.

5. What has been most exciting about being involved in this project?

6. What has been most challenging?

Key Questions:

7. How do you think your students would rate their experience in the pilot ACE on line course(s) you taught on a scale of 1 to 10, 1 being poor and 10 being excellent? Why do you give this particular rating?

8. How did you track the student experience during the pilot?

9. From your perspective as an instructor, how would you rate your experience teaching in the on line pilot, on a scale of 1 to 10, 1 being poor and 10 being excellent? Why do you give this particular rating?

10. Overall, what worked best about this course?

11. Overall, what aspects of the course need to be improved the most?

12. What aspects of navigating the course layout worked well for your students? What aspects were difficult? How can these difficulties be resolved?

13. How clear did students find the course instructions and explanations? What would you change for future courses?

14. How well did the course content work in terms of 1) appropriateness of difficulty level of the content, 2) student interest, 3) completeness, 4) workload, 5) tests, 6) resources? What would you do differently next time?

15. How much interaction did students have 1) with you and 2) with each other? What worked well and what would you do differently?

16. Was there enough overall support for students to be successful? What supports worked well? What, if any, additional supports do they need?

17. What kinds of technical difficulties did students experience? How were these resolved?

18. How well did the forum work as a support for learning?

19. What did you notice about the characteristics of students who do well with on line learning? What about those who do not do as well?

Wind down and wrap up

20. How do you see yourself being involved with ACE on line in the future?

21. Do you have additional feedback about your ACE on line experience that we did not discuss that you would like to add?