Summary of M206 Map Developmental Testing

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PARTICIPANTS: TOTAL OF 6

<u>Four</u>: representative of 'real' potential M206 students (one is actually considering taking the course!)

Background on these four:
- All use computers at work.
- None have previous programming experience.
- Conferencing and web experience varied from none (2) to some (2).
- Email experience varied from a little (1) to daily at work (3).
- One is considering taking M206.
- One is currently enrolled in D103 (social science foundation course)
- One is not/has never been affiliated with the OU.

<u>Other Two</u>: post-graduate student interns in IET but otherwise, a similar skill set to expected students though on the technically proficient end of the spectrum:
- Both had some programming experience (e.g., Basic)
- Both claimed to be heavy users of the web.
- One had previous experience with conferencing.

SUMMARY OF OVERALL PROCEDURE

Participants were asked to do two tasks. Each task consisted of taking a tour first and then using the map to find things as needed to answer three questions. The two tours tested were the general tour and the Block 1 tour. After completing the tasks, each participant was asked questions about the tours, the map layout and structure, the course, and how they might use (or not) the map before and during course presentation. Each session took approximately 1.5 to 2 hours; there was one person running the session and two observers/note-takers for each session. All sessions were videotaped as a backup.

Note that the look-up questions always comprised a mix of difficulty including: (1) finding something shown directly in the tour, (2) finding something mentioned as existing in the tour, and (3) finding something by inference based on a their 'mental model' of the structure and content of the map (the 'trick' question).

Results grouped in the following areas:
- Overall look and feel of the map
- Navigation
- Tours
- Content of map
- Perceptions of the course
- Use of the map

Overall look and feel of the map

All the participants were very enthusiastic and positive about the overall look and feel of the map. Many voiced unsolicited praise for the colors, the fonts, the design, and the intuitive layout. Thank you Diane!

Navigation

6 out of 6 participants were able to use the map to answer 5 of the 6 questions; these questions were in categories (1) and (2) outlined above.

3 out of 6 were able to answer the 'trick' inference question (category 3) with no assistance; the other three required a hint.

In general, people had very few problems navigating and seemed to be able to easily find things they were looking for.

All participants seemed to easily grasp clicking on the background to close windows.

A few participants were confused as to how to close the modal windows (2 out of 6). Several assumed that clicking on the background would also close these. The problem was they needed to do this in task 1 but the instructions on how to do this were not covered until the Block1 tour in task 2.
- Proposed solution: make sure this is explicitly covered in the General Tour. Also, would it be feasible/desirable to make clicking on the background close these (in addition to the close box)?

A few participants (2 out of 6) were initially confused about the status of the general resources list; i.e., what are these things and are they selectable?
- Proposed solution: Add a title to the top of the list like "Course Resources:"

Most of the participants had some difficulties with the rollovers in the level one general resources and the block resources pane. Three kinds of trouble occurred: (1) always clicking on the left hand label and then wondering why the right hand side

doesn't change; (2) being surprised when the text changed (not realizing they had moved the mouse), and (3) the interface was just too jumpy and always changing.

- Proposed solution: Get rid of these rollovers so that the behavior is consistent with the top level global course resource list; i.e., you have to click on the these things.

About half of the participants wanted to click on the triangle icons in the course resources list at the top. Most people figured it out after two or three tries but one person had to be told.

- Proposed solution: Can we make this clickable just like the text? This is a minor issue though.

Tours

Each participant took the General tour and then the Block 1 tour.

Participants were given a selection of cards and asked to choose all the ones that applied to the tours. The choices were: too fast, too slow, just right, irritating, helpful, too long, too short. For convergence, participants were also asked direct follow up questions specifically about whether the tours were helpful, a waste of time, irritating, and whether they were ever bored or fidgety. Other questions specifically asked participants about the explicador head and the headlines.

<u>6 out of 6 said the tours were helpful</u> (4 chose the helpful card, other two said tours helpful during follow-up). Follow-up questions (i.e., why do you say it was helpful?) revealed that folks thought the tours were helpful for taking them through the structure of the course phase-by-phase, for introducing the media, and for showing them how to use the map. These responses were very nice to hear considering these were the tour design objectives!

All the participants said that they would probably listen to all or parts of the tours several times.

1 out of 6 said the tours were <u>just right</u> --> follow-up questions showed he was referring to the graphics/layout of the map that were shown in the tour.

4 out of 6 said the tours were <u>too fast</u>
1 out of 6 said the tours were <u>too long</u>
2 out of 6 said the tours were <u>irritating</u> (both of these were the post-graduates)

We have grouped these together because follow-up questions reveal commonality in the underlying problems. Basically, the tours as written cover too much, too fast. Most people are comfortable with the general content and level of description but just want the tours to pause more for them to assimilate what they have just heard. Thus, part of these responses is an artifact of the testing procedure in that the participants could not pause and restart the prototype software. The irritating responses also involved a related issue - too many things to attend to at once. These

two tried very hard to hear and read everything at the same time and were frustrated because this is impossible.

- Proposed solution: We need to rewrite the scripts to eliminate some detail, to make sure the audio track and the text is more clearly sychronized, and to encourage them to pause and explore in various places. We also need to include some explicit tour taking suggestions near the beginning; i.e., tell them to stop and explore, tell them to not try to read everything the first time and relax and listen, tell them they may want to listen to parts more than once.

Concerning the explicador head and the headlines...

It is difficult to gauge the effectiveness of the explicador head and the headlines since these were only functional for small amounts of the tour.

<u>4 out of the 6 participants viewed the explicador head positively</u>; 1 did not care (when asked about the head versus an audio track); 1 found the head to be irritating because it did not move. (He felt impelled to stare at it expecting video-like behavior and then nothing ever really happened; thus he felt wrongly distracted.) The positive responses liked seeing who was talking and liked having a visualization to look at during the audio. These people did not appear to expect video-like behavior.

Th headlines only worked briefly. Most people did not remember noticing these 3 or 4 headlines at the beginning of the General tour. Those that did thought they were helpful.

Content of Map

People seemed to understand the different types of map content (general resources, blocks pages, block resources, and chapter overviews).

A few minor nits however...

- We should be careful about using terms like 'object inspector' in the general resources and tour since this is not self-explanatory.

- We should not use the 'Internet' and the 'Web' interchangeably (we sort of do in the general tour / web resource area and somewhere in block2). Most people are already confused about the relationship between these anyway without us adding to the problem.

- We should be more explicit about where resources live; i.e. more emphasis on the fact that printed text are physical pages in a ring binder and not on-line materials.

Perceptions of the course

Results in this category come from two sources. First, after each task, participants were asked to answer questions about the course using the map. The questions were:

After the general tour....

Please describe what the course is about in one or two sentences.

Please describe the role of the printed texts in the course and how does this compare with the role of the Smalltalk LearningBooks.

Please describe the role of conferencing in the course and how does it compare with the role of the World Wide Web.

After the Block 1 tour....

Please describe the structure of the course in one or two sentences?

Can you describe what chapters are? What resources and materials compose chapters?

Only have of the participants were able to adequately answer the question about smalltalk versus printed text. However, due to a bug in the system, this information only appeared in audio form during the tour and was not visible in the text when people went back later to epxlore.

- Proposed solution: We may need to be more explicit in the text descriptions in these resources than we currently are.

Everyone was able to articulate that conferencing was for communicating with other students and tutors and the web was a resource area for getting updates to course materials. Yeah!!!

5 out of 6 participants were able to clearly articulate the structure of the course; i.e., 7 blocks, study weeks, chapters, etc. (the other one (one of the post graduates) seemed to think we were asking a deeper question about design of educational materials)

5 out of 6 participants were able to clearly articulate that 'chapters' consisted of a variety of resources such as printed text, learning books, web pages, and television programmes.

After both tasks, participants were given a selection of cards and asked to choose all the ones that applied to their perceptions of the course, based on the map and tours. The choices were: interesting, difficult, hard, easy, boring, confusing, approachable, technical, fun, do-able, challenging, stimulating.

Participant 1 chose:

> approachable, do-able: could become comfortable learning this way
>
> challenging: something completely different
>
> interesting: the way the course is laid out and using up-to-the-minute technologies
>
> fun: using new bits like the web and first class

Participant 2 chose:

> stimulating, interesting: way tour presents course makes it seem interesting
>
> approachable: looking at blocks and tasks made it seem approachable and accessible, made it seem easier
>
> hard, challenging: [because of subject matter]

Participant 3 chose:

> technical, challenging: [because of subject matter]
>
> stimulating: new media and materials
>
> interesting: due to the layout and the way it takes you around

Participant 4 chose:

> approachable: the breakdown of the blocks and the way you can choose your way through rather than sifting through paper
>
> interesting: different subject, neither hard nor easy
>
> stimulating, challenging: new things, different from what I'm used to
>
> technical: lots to get your head around
>
> fun: looks like a nicer way of learning, rather than being sat with a list of books

Participant 5 chose:

> do-able: you know where you are supposed to be and if you followed your timetable you couldn't go too far off track
>
> stimulating: packed full of lots of different things, lots of different media
>
> technical: have to be able to connect all your widgets up
>
> fun: looks fun if things are going well (all your software works and you can get everything installed)

Participant 6 chose:

> approachable: because of the layout, easy to jump in and begin
>
> do-able: the general resources, plus the descriptions of how the media used in the course made it seem like a good opportunity to experiment
>
> technical, challenging: involves a certain degree of technical aptitude
>
> fun: each of the general resources looks fun to explore, 'look and feel' of map interface is exciting and appealing
>
> stimulating: the new media and being an opportunity to experiment

We have included brief summaries of what each participant chose and their explanations of their choices so you can judge for yourself. Based on these responses, we feel that <u>the map made a large contribution to people's overall positive perceptions about the course</u>. The tours, the general resources, the clear layout and the overall friendliness of the map seemed to contribute to people's perceptions of approachable, do-able, fun, stimulating, interesting. One participant remarked that the map made the course "look quite structured, organized, and divided into managable chunks"; these sentiments were echoed in different ways by all of the participants. Thus, we appear to be on target for meeting many of our design objectives laid out in the map design brief presented to the course team last October.

Use of the Map

We asked people detailed questions about how they would use the map and when it would be most useful to them (or not). We looked at three types of usage: using the map promotional material for prospective students, using the map in the beginning of the course, using the map throughout the course.

Specifically, we asked:

> Do you think this would be useful for convincing you to take the course?
>
> Or for helping you get started on the course? Or for using throughout the course?

using the map promotional material for prospective students....

<u>6 out of 6 participants thought the map would be very useful for helping them to decide whether to take the course.</u>

4 out of 6 participants thought it would be preferable to paper-based promotional material

1 out of 6 wanted both paper-based materials, a video promo, and the map!

1 out of 6 noted that it would give her the necessary confidence prior to starting a course she would otherwise be a little scared to take (this participant is actually considering to take M206 next year).

1 out of 6 pointed out that the map might 'put you off in terms of workload' since it 'looks like a lot to be doing'. However, another participant (an actual OU student) viewed this as a desirable feature since it gave her a better idea of what she would be getting into and committing to do for the next year.

using the map in the beginning of the course.....

<u>6 out of 6 participants thought the map would be very useful at the beginning of the course</u>

Most thought they would look at the tours several times. One said he would explore the whole map briefly at the beginning .

using the map throughout the course....

<u>6 out of 6 participants thought the map would be very useful throughout the course</u>

1 out of 6 used a phrase like 'aim to use it throughout' since he might not carry through if he got too involved in the course proper

1 out of 6 mentioned that she would particularly use it at the beginning of every block

Several participants said they would use it throughout the course to help with catching up (if they got behind), planning their study, and helping with revising and planning their revising.