PROJECT - FEEDBACK SYSTEM FOR eLEARNING SYSTEMS

PERSONAS

Persona#1
Mark Lipton
Mark is a successful 40 year old executive. He is the youngest area manager of his company and he has a big team of the best professionals of the co. working under him. Everyone respects him, it helps that this is his first job and that he has given this job 19 best years of his life. Given his powerpoint, spreadsheet and general technical skills, he is always chosen to represent his co. at the international forums. However, Mark is not satisfied. He needs a better position, higher pay cheques and a position of Regional Manager. Given, his network, his output and the respect he gathers, it seems natural that he would acquire what he wants soon enough. But, Mark fears the new young man who has a MBA from a reputed school under his belt. "The new man", as Mark would say, "can throw some excellent jargon. But in the end, its only experience."
But, Mark knows that he needs to learn some skills formally. He remembers his long time undergraduate friend telling him about the GetMastery Inc., a co. whose certification courses the industry happily obliges. He decides to enrolls himself for certain high level management courses.

Persona# 2
Eza dSouza
Eza is a 50 year old woman who runs a home made chocolate parlor. The parlor has the best goodies in the town. No party is ever complete without candies from Eza'a Chocolate Parlor. She painstakingly looks after every piece that is churned out by the Parlor's kitchen. She treats her chefs like her children and trusts them enough to pass on her secret recipes. Recently, she hired a new chef. Young and meticulous as he was, Eduardo had some communication problems. Eza did not want to loose a good and a hard working chef, so to make him feel at home, she decides to learn elementary Spanish. Though, she is hardly left with time for herself, Eza thought, Eduardo would feel welcomed if comes to know of her boss's efforts. Besides, Eza would love to learn a new language. Happily, she asks one of her customers if he knows about some Spanish classes in the town. The customer suggests her to

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enroll in GetMastery Inc. e-learning system for elementary Spanish. That way she would be able to control the pace of the program and also would be able to study from the comfort of her home. Eza thinks about it, though she uses computer for very basic tasks, she decides to give it a shot.
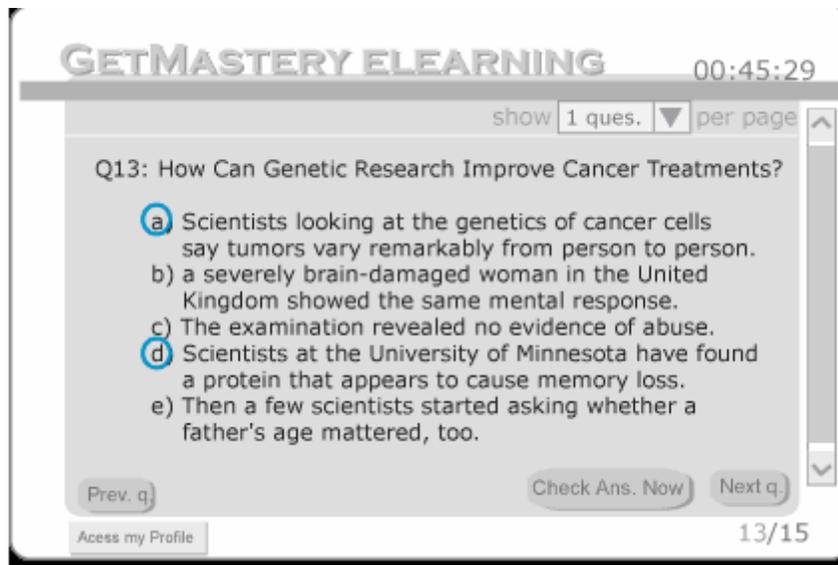
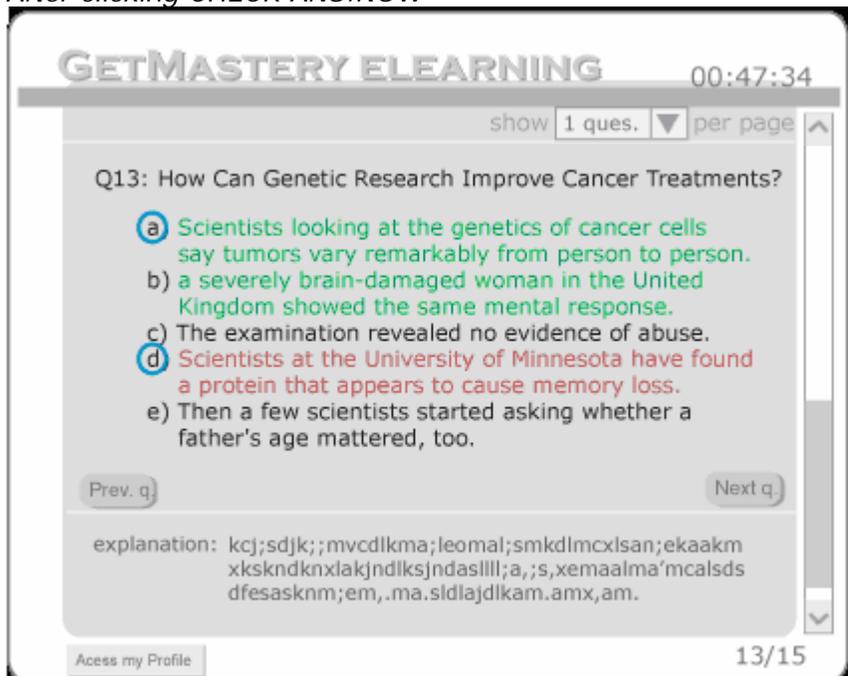INITIAL DESIGN

Some screens from initial mockup design

After clicking CHECK ANS.NOW
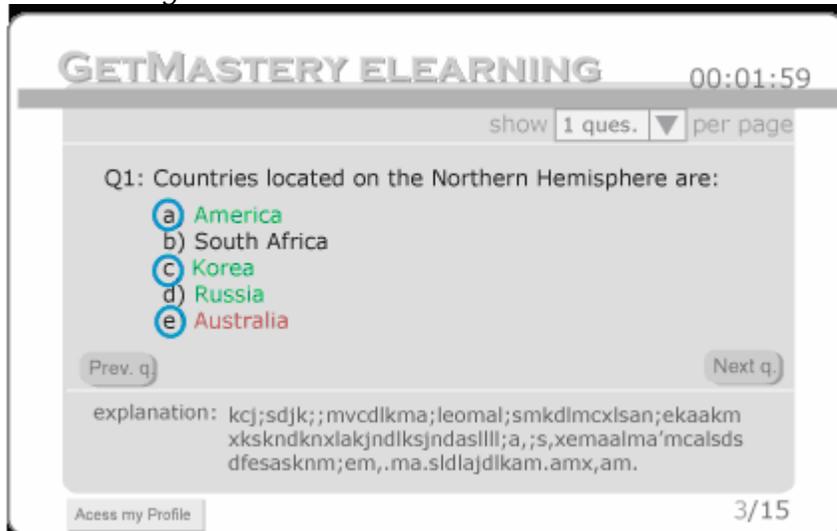
After clicking CHECK ANS.NOW

TESTING PROCEDURES

SHOW USER 4 SCREENS
   The screens should cover following scenarios:

I)   a question with single option correct and options having a
        small text length

II)   a question with multiple options correct and options having a
        small text length

III) a question with single option correct and options having a long text length

IV) a question with multiple options correct and options having a small text length

For each screen ask following questions:
a) Ask user how they would respond to the screen.

b) Show them the screen showing them the result of their choice and other possible options

c) Ask user what they interpret of the resultant screen.

d) Ask user if the screen layouts confused them

e) Ask user if the system did not meet their requirements

TESTING RESULTS

User#1: Heekyoung Jung
           Ph.D. student in HCI/d
           Female

She understands the screen layout perfectly for all the 4 scenarios.
Her suggestions:
Font size should be larger.
There should be a line break between 2 options.
Expects results after clicking on options.

User#2: Jenna Walker
           Undergraduate in History/East Asian Studies/International
           Studies
           Female

She understands the feedback system for every scenario.
Her suggestions:
Wants to read the explanation without actually marking her answers.

FINAL DESIGN
Instruction Page

GETMASTERY ELEARNING

Hi Eza!
Let's start chapter 3.

The chapter would have few multiple-choice questions.
They may have one or more options correct.

You can choose answers by:
(1) clicking at your option.
            OR
(2)Pressing key corresponding to option's choice, i.e.a,b,c, etc.
    Press Enter to submit answer.

You can unmark options by clicking at them, again or pressing
the options choice key.

▶

GETMASTERY ELEARNING

● your answers will be circled in blue.

● click Check Answer), you can evaluate your answers and
  read the explanations.

● you can click Skip to Explanation) to see expalnations directly.

● The correct answers will be marked in green.

● The incorrect answers will be marked in red.

Now, Let's begin learning.

▶

Tool tip

GETMASTERY ELEARNING

Q1: Countries located on the Northern Hemisphere are:

    a) America
    b) South Africa
    c) New Zealand   Do you want to chang the answer? You   ✕
    d) Indonesia   can unmark an option by clicking at it
    e) Australia   again or pressing the option choice from
                         keyboard.

             Check Answer)   Skip to Explanation)

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Screens with questions

Type I Scenario
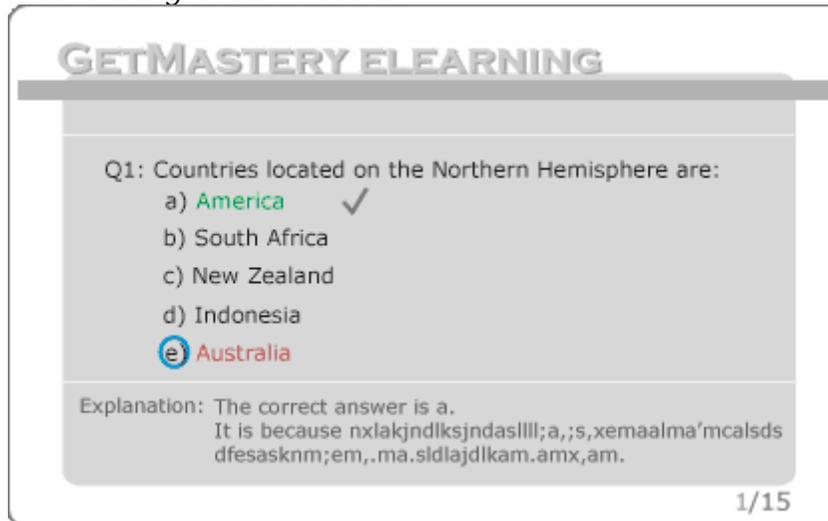
GETMASTERY ELEARNING

Q1: Countries located on the Northern Hemisphere are:

a) America
b) South Africa
c) New Zealand
d) Indonesia
e) Australia

Check Answer   Skip to Explanation

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After clicking CHECK ANSWER

GETMASTERY ELEARNING

Q1: Countries located on the Northern Hemisphere are:
a) America   ✓
b) South Africa
c) New Zealand
d) Indonesia
e) Australia

Explanation: The correct answer is a.
It is because nxlakjndlksjndasllll;a,;s,xemaalma'mcalsds dfesasknm;em,.ma.sldlajdlkam.amx,am.

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Type II Scenario

After clicking CHECK ANSWER

Type III Scenario

After clicking CHECK ANSWER

Type IV Scenario

After clicking CHECK ANSWER

TESTING OF THE FINAL DESIGN

Repeat the testing procedures for the initial design mockup.

User#1: Jillian Davenport
Undergraduate in Business
Female

Jillian understands the screen layouts and feel they are simple to follow.

DESIGN RATIONALE

One of the guiding features for the design of this interface was the ease of interface. Our personas are from different walks of life. While one of them is very comfortable using computers, the other one is bit hesitant. We tried to cover different people in our personas and hence design, where people with basic and sophisticated computer skills are equally at-ease with the interface.

DESIGN EXPLANATION

A user typically gets a question in midst of her tutorial lesson. The question is preceded with a statement "Mark one or more options to indicate correct answer. You may either use a mouse or a keyboard."

The user may click any of the options' text, or options' choice(i.e. a, b, c, d) to indicate her answer. She may even press a key corresponding to the option's choice i.e. a, b, c, d etc. to mark her choice. Though, we intend to give instructions how to use mouse and keyboard to mark the answers on the welcome page but we do not expect the user to read that. We would also let the user learn more about the system and *discover* the quick shortcuts themselves, while providing clues all the way. We feel this approach is generally used by other software and we feel that inundating a novice user is to veer her away from the system. A user who is comfortable with the computers and has some experience with it would be generally able to grasp all the functionalities in the first go itself because all such functionalities remain similar in all software.

Following are the points/areas we worked on to improve the user's experience. They do not necessarily follow any order on the layout of the system. These are in fact a collection of points which we analyzed and used in our system.

- Feedback system: is the response a user would get when she interacts with our system. When a user indicates her choice, the option choice is bubbled in blue eg. a) Also the text of this particular option would be colored with the same shade of blue. When the user confirms her answer the correct option is colored green and if the user has chosen an incorrect option, her chosen option turns red while correct option is colored green. The blue bubble however remains to remind the user of her choice. This makes it easy for user to compare her answer with the correct answer if she wants to.
We decided against a bubble because a user might like to do the same on paper, though the ticks marks were other option and generally used by people more than any other symbol to mark their choice, we thought that a tick marked option which is wrong can be confusing for the user.
We chose a scheme of red and green because intuitively, people understand red is for wrong and green is for right. There are every day things in life which impose this color scheme on us. The most common example would be traffic lights where red and green mean *stop* and *go.*
We also decided to put a tick mark against a correct answer and in case of multiple correct answers we draw combinatorial lines with a tick mark against them. This was done with the purpose of making the reading of the correct multiple answers, easier. Also, this accommodates people who might not be able to distinguish between the two colors too well.

- "All of the above" choice: In case a question has an option "All of the above" and a user chooses "All of the above" and any combination of options, the marked answer is treated as "All of the above". The blue bubble on the choice other than the "All of the above" option disappears so to not confuse the user. Also only "All of the above" option is tick marked and indicated in green. The rest of the options remain in black font color.

- Finalizing the answer: After conducting the usability tests, we concluded that a user expects answer/explanation come to her as soon as she is done with her marking the choice. By keeping a count of time and waiting for a long pause in the user's activity on the screen, one can determine if the user has finished evaluating and marking the question or not. However, the usability test also reveals that in case of multiple correct answers a user prefers buttons over the answer coming to her after she has indicated her choice. This might be the case because a

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multiple correct option question is tough to do, and a user likes to choose her options and then wait for a minute to confirm the final answer in her mind. To maintain the uniformity across both single option correct and multiple options correct, we decided to use buttons.

Also, we decided to put two buttons, *Check Answer* & *Skip to explanation*, the names are explanatory, while both the buttons have the same functionality and can be used interchangeably, we have kept the second button to give user a feel that her answers won't be evaluated and she is encouraged to read the explanation even if she is not very confident about this question. We hope this enhances the user's learning experience. We also provide user a chance to change her answer if she wants to. As soon as user hovers her mouse over "*Check answer*" button, a tool tip with comfortable translucent background(pale gray) arises asking user, "Do you want to change the answer? You can unmark an option by clicking at it again or pressing the option choice from keyboard". This way user can change the answer before confirming their answers. This tool tip would have provision of setting it off too. A user might find repeated occurrences of the tool tip annoying esp. after she has learnt the desired steps to change her answer.

- Explanation: A small gray dialog box arises below question, which provides correct answer, indicates if user was overall incorrect or overall correct and explanation of the question and its answer. We earlier decided to indicate to user if she was partially correct (when she chooses few correct answers of all correct answers), but it seemed to confuse users more.