2009 Paper 7 Question 10

Human–Computer Interaction

You have been assigned responsibility for designing the user interface of a new version of the UK government web facility that is used by taxpayers to make their income tax returns online.

(a) You suspect that different taxpayers use the online tax return in a number of quite distinct ways. How might you investigate this, and how could you communicate your findings to the development team? [2 marks]

(b) A study of the system data logs shows two surprising patterns of behaviour. Some users repeatedly enter different values and then change them, apparently trying out the results. The other pattern includes long pauses between entering each piece of data, with the same users accessing help and documentation pages in alternation with data entry pages.

   (i) How might you account for these two patterns? [4 marks]

   (ii) What usability analysis procedures might you carry out to improve usability of the system for these two classes of user? [4 marks]

   (iii) What improvements might be experienced by each class as a result? [4 marks]

(c) After the project has begun, it is decided that the new design should also support two further classes of user: those who do not want to make a tax return online, but simply need to find out what paper documents to request, and staff within the tax office who need to use the system to review people's tax returns when the taxpayer rings up with a telephone enquiry.

   What usability analysis procedures might you use when customising the user interface for these classes of user, and what improvements might they experience as a result? [6 marks]