

Understanding Users?



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- Traditional **functional** approach to HCI: main goal is to improve the execution of tasks and activities, reduce error and frustration.
- Making a system usable: Usability
- Creating models of how people use a system to inform design
 - Task Analysis
 - GOMS: Goals, Operations, Methods and Selection Rules
 - Cognitive Walkthrough
 - Structured interviews / questionnaires

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- Structured interviews and questionnaire
 - Only get information on items that the structured interview/questionnaire is oriented towards

Other Motivations (Please Specify) _____

7. How would you rate the following service elements, where 1 is not very good and 5 is excellent? (Please rate EACH of the following).

	1	2	3	4	5
Value for money	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Quality of information available	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Knowledgeable and informative staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Efficiency of staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Overall service quality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify) _____					

8. Would you like more information available about each facility at this site?

Yes ☐ No ☐

9. If yes, which of the following would be most beneficial to you? (Please answer EACH of the following).

Historical facts about the site and its contents	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
Cultural facts about Irish way of life	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
Architectural information of buildings	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
Other (please specify) _____				

10. When would you prefer to receive this information?

Prior to visit ☐ During visit ☐ Post visit ☐

11. Do you own a mobile phone?

Yes ☐ No ☐

12. If yes, are you using this phone while on your holiday?

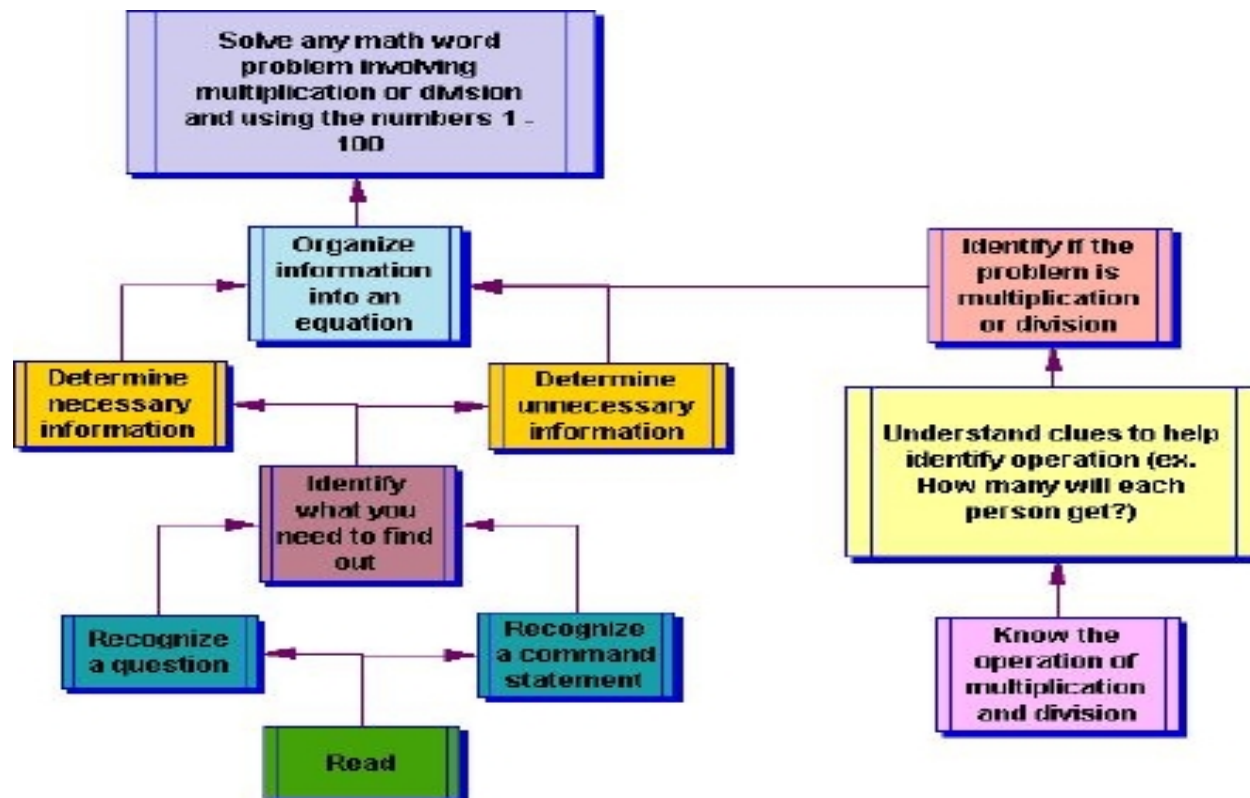
Yes ☐ No ☐

13. Do you think technology could improve or enhance your visit? _____

- Visitor profile
 - 51% male 49% female, Majority were aged between 30 and 60 years of age
 - Nationalities: 37% Ireland; 24.5% USA, 16% UK, 14% other (83% of these were from Australia & New Zealand)
- Motivation for visit
 - The main motivations for visiting centred around experiencing Irish culture
- Service elements: 21% Not satisfied with quality of information
- Information: 74% would like additional information
 - Guided tour of castle sufficient, but level of information for the rest of the site falls short
 - 50% noted how additional information could enhance visit

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- Task Analysis?
 - Creating a representation of task (book p507 - 518)
- Hierarchical Task Analysis



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- GOMS
- Goals: what the user wants to achieve
- Methods: Procedures for selecting goals
- Operators: Cognitive processes and Actions that have have to be performed
- Selection Rules: Used to determine which method to select

GOAL: DELETE SENTENCE

Method_for_goal: MENU-METHOD-DELETE SENTENCE

Step 1: HIGHLIGHT SENTENCE

Step 2: OPEN MENU

Step 3: SELECT DELETE-COMMAND

Step 4: Accomplish_goal MENU-METHOD-DELETE SENTENCE

Method_for_goal: DEL-KEY-METHOD-DELETE SENTENCE

Step 1: POSITION-CURSOR AT END

Step 2: PRESS DELETE FOR EACH LETTER

Step 3: Accomplish_goal DEL-KEY-METHOD-DELETE SENTENCE

Selection_rules_for_goal: DELETE SENTENC E

If [long sentence] Then Accomplish_goal: MENU-METHOD-DELETE SENTENCE

If [short sentence] Then Accomplish_goal: DEL-KEY-METHOD-DELETE SENTENCE

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- Cognitive Walkthrough
 - Based on a clear sequence of actions
 - Expert evaluators look to answer the following:
 - Will the correct action be sufficiently evident to the user?
 - Will the user notice that the correct action is available?
 - Will the user associate and interpret the response from the action correctly?

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- Useful for studying highly structured systems that rely on the users' performance of a series of established tasks (procedures)
- Focus on tasks and performance only vs. focus on broader context of use

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- So need to look beyond simply analyzing peoples tasks:
 - Cultural context
 - Social context
 - Physical context
- Other methods needed that provides more knowledge on these

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- Qualitative approach
 - Ethnography and the Ethnographic methods
 - What is Ethnography?
 - Documenting human
 - Behaviours
 - Situations
 - Practices
 - through fieldwork and collecting data accounts
- Recording: Activity descriptions, Rules and procedures, Informal interviews, descriptions of artefacts used, Workflow diagrams.....

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- Ethnography is grounded on fieldwork
 - Why?
- Data accounts
 - Rich
 - Not straightforward measurements
 - They have to be interpreted and analysed
 - It also means that they are taken from the perspective of the observer.

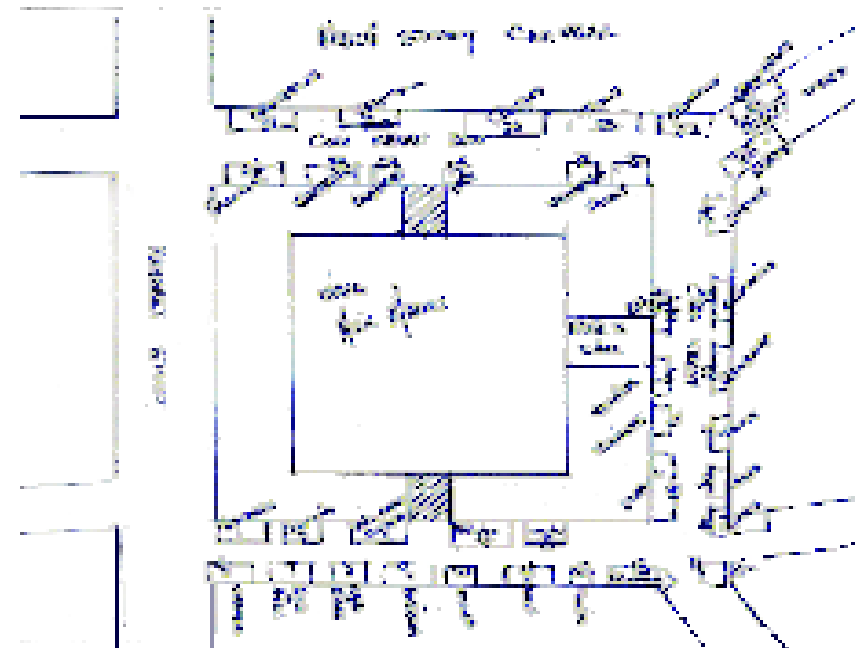
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- Qualitative techniques
 - Video observation
 - Shadowing



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- Qualitative techniques
 - Note taking and sketching
 - Conversations
 - Semi-structured interviews
- Participant observation (insider)



- Still photo surveys



Summary

- Methods for analysing the structure of tasks

VS

- Methods looking at the wider context in which a design is situated in
- Task Analysis: HTA, GOMS Cognitive Walk through
- Ethnography and the Ethnographic methods
(Documenting human behavior through fieldwork)