LESSON 2

Course Project

Digital Innovation Development for Entrepreneurs

Course Project

PROJECT

How do you build the product or system that you, and the user, really want?

you can use any project,
for example,
from another class

project overview
Contextual Design
project requirements

Project Overview

PROJECT OVERVIEW

choose a project

good if it is from another class

PROJECT
OVERVIEW

develop part of a digital product
or service

PROJECT
OVERVIEW

design a user interface

PROJECT
OVERVIEW

demonstrate your design skills
learnt on this course

Contextual Design

PROJECT

Contextual Design

Work modelling

- gather information
- from users and relevant documents
  - traditionally interviews and observations
- model system
- locate weaknesses, problems, solutions & improvements
- traditional case study
  - digitalize a Hotel system
  - booking, billing & inventory system

1. traditional
2. digital

Contextual Design

Swan Hotels

- hotel booking system for small hotels
- linked to the web
- current system
  - paper-based booking systems (a large diary)
  - paper-based inventory system
  - PC-based billing system

Contextual Design

The Swan Hotel

The Swan Hotel is a small family-owned establishment located in northern England. The Swan has 12 double rooms, one small suite complete with a four-poster bed, a restaurant/breakfast room and a public bar. The hotel is very busy and always fully booked during the summer months and offers short breaks at other times of the year. Older customers who particularly like the friendly atmosphere and helpful staff make up a substantial proportion of the guests.

The hotel team is made up from a core of permanent staff, including the *general manager* (also the owner), the *catering manager*, the *bar manager*, the *receptionists* and the *rooms manager*. *Waiters* and *waitresses*, *cleaning* and *bar staff* are usually employed on a seasonal basis. More staff are employed during the summer and fewer in the winter.

Reception is located opposite the main entrance and is staffed from 0700 until 2230 by two shifts of receptionists. A member of the bar staff looks after the reception between 2230 and midnight.

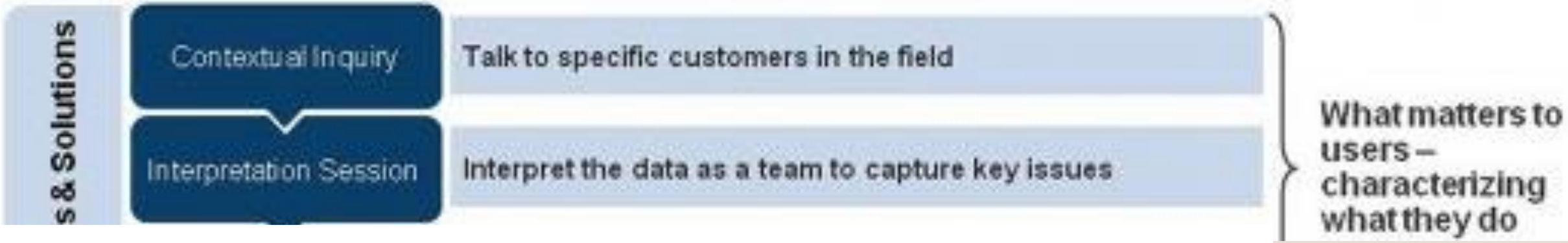
The receptionists are responsible for the following tasks.

- *Checking-in guests*. This involves checking their names against the details in the booking system, allocating them a room and issuing the key from the key board.
- *Checking-out guests*. This involves preparing their bills, including totalling the cost of their room or rooms and any bar and restaurant bills, settling the bill by taking payment usually by way of credit or debit card, and returning the room key to the key board.
- *Bookings*. This involves accepting bookings, responding to requests as to the availability of rooms and cancelling bookings. Most communication is by telephone but occasionally faxes are received, particularly to confirm bookings. Surface mail is also received, containing written confirmations. Increasingly, however, e-mail is beginning to replace some of the phone calls and letters.
- *Maintaining the website*. The general manager is keen on using the WWW for attracting fresh business, advertising the restaurant and promoting special offers such as short breaks (these are weekend breaks for couples and are typically inclusive of an evening meal).
- *Taking bookings for dinner* from the guests and any member of the general public wishing to eat in the hotel.
- Giving a warm, friendly *welcome* to the guests, helping with tourist enquiries and generally being the *main point of contact*.

The receptionists are responsible to the general manager or her deputy, the rooms manager.

see Benyon 2010 chapters 12 & 13 from p271


Requirements & Solutions
Define & Validate Concepts
Contextual Inquiry
Talk to specific customers in the field
Interpretation Session
Interpret the data as a team to capture key issues
Work Models and Affinity Diagramming
Consolidate data across customers for a full market view
What matters to users – characterizing what they do
Visioning
Redesign people's work with new technology ideas
New ideas and direction
Storyboarding
Work out the details of particular tasks and roles
User Environment Design
Design system to support this new work
Redesign activities and technology to provide value
Paper Mock-Up Interviews
Mock up the interface using interaction patterns for testing
Interaction & Visual Design
Design and test the final look and user experience
Iterate the system with users



Contextual

- gather information
- from users and relevant documents
  - traditionally interviews and observations

digital

- research
- user feedback (if feasible)

Work Models

- model data
- visioning
  - vision of new system / tool

digital

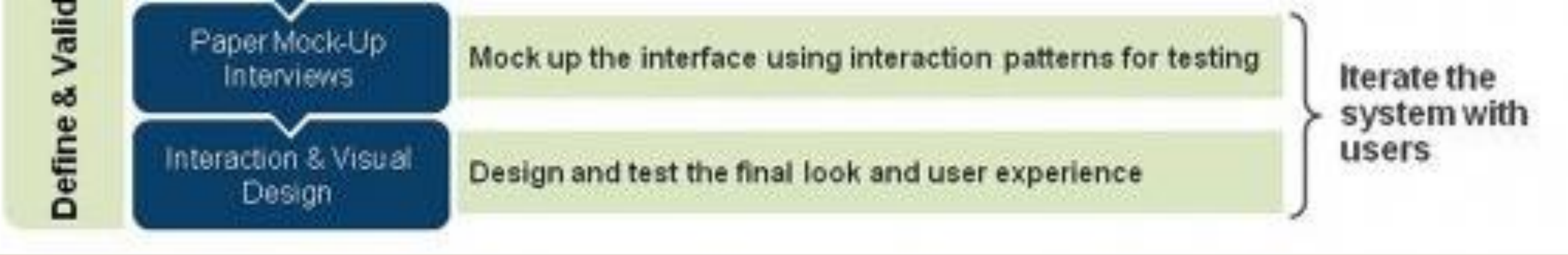
- model data
- visioning
  - vision of new system / tool

Design - storyboarding

- walkthroughs

digital

- walkthroughs



Design -prototyping

- create your interface
- test your interface

digital

- create your interface
- test your interface

Contextual Inquiry

PROJECT

Contextual Design

Google Definition

“Contextual inquiry is **a way to do research that involves watching and talking to users in their natural environment to learn more about their behaviours, needs, and preferences**. This method is used a lot in software development, product design, and service delivery, among other things.”

Contextual Inquiry

Contextual Inquiry

- focused interview
- observation

Holtzblatt and Beyer

- core premise of CI is very simple
- go where the customer works
- observe the customer working
- talk to the customer about work
- results in a better understanding of your customer

Contextual Design initial stages

Contextual Inquiry

- observation
- interviews

Working models

- flow models
- sequence models
- artefact models
- cultural models
- physical models

Contextual Inquiry

- research
- user feedback

Working models

- flow models
- sequence models
- artefact models
- *cultural models*
- *physical models*

interpretation

- listen to the user
- ask why?
- you could be totally wrong
- you need to check assumptions / interpretations

we will look at a digital contextual inquiry in week 3

Project Models


Requirements & Solutions
Define & Validate Concepts
Contextual Inquiry
Interpretation Session
Work Models and Affinity Diagramming
Visioning
Storyboarding
User Environment Design
Paper Mock-Up Interviews
Interaction & Visual Design
Talk to specific customers in the field
Interpret the data as a team to capture key issues
Consolidate data across customers for a full market view
Redesign people's work with new technology ideas
Work out the details of particular tasks and roles
Design system to support this new work
Mock up the interface using interaction patterns for testing
Design and test the final look and user experience
What matters to users – characterizing what they do
New ideas and direction
Redesign activities and technology to provide value
Iterate the system with users

5 models

models

1. flow model - captures communication and coordination between people to accomplish work
2. sequence model - shows the detailed steps performed to accomplish each task important to the work
3. *cultural model - shows how people are constrained and how they work around those constraints*
4. artefact model - artefacts used in doing the work, they reveal how people think about their work - the concepts they use, and how they organize them to get the work done
5. *physical model - shows the physical environment*

flow, sequence and artefact model

I will explain

- each model
- how we can apply these to a digital product
- I will also give examples

You will work together in labs to

- provide examples of these models for digital products

Project Details

PROJECT DETAILS

project

Project

1.	Draft Proposal		week 2
2.	Proposal & Inquiry	stage I	week 4
3.	Design - modelling	stage 2	week 8
4.	Design - prototype	stage 3	week 13
5.	Demonstrations		week 14

Deliverables & Deadlines

PROJECT DETAILS

- *Draft Proposal* — *week 2*
- Proposal — week 4
  - includes contextual inquiry
- Progress Report — week 8
  - includes models
- Final Report — week 14
  - includes design/testing
- Presentations — week 15

Project Lab work

PROJECT
LABS

project labs

week 1 introduction to the project & contextual design
week 2 teachers day

week 3 Lab 1: contextual inquiry – digital product for a University
week 4 Lab 2: modeling I – digital product
week 5 Lab 3: modeling II – digital product
week 6 Lab 4: modeling III – digital product

week 7 (Monday holiday) cognition lesson
week 8 mid-term exam review

after midterm, modeling to design & design

project work

- choose your project
- project proposal – create a proposal report (week 4)
- modeling
- project progress – create a progress report (week 8)
  - include your proposal
  - include your models / design
  - include your ‘vision’
  - include your ‘progress’

References

- Benyon D. (2010) *Designing Interactive systems,* 2nd Edition, Addison Welsey, Harlow
- Dix A., Finlay J., Abowd G. Beale R. (2004) *Human-Computer Interaction,* 3rd Edition, Prentice-Hall, Inc., Upper Saddle River, NJ, USA.
- Johnson J. (2010) *Designing with the Mind in Mind: Simple Guide to Understanding User Interface Design Rules.* Morgan Kaufmann, San Francisco
- Shneiderman B. and Plaisant C. (2010) *Designing the User Interface Strategies for effective Human-Computer Interaction*, 5th Edition, Pearson, Boston
- UsabilityNet (2006) *What is usability?* [online] Available from: *http://www.usabilitynet.org/management/b_what.htm* [Accessed: 3rd Dec 2014]

Thank You!

any questions?