

# PACT Analysis

## What Is A PACT Analysis?

1. **People:** relevant user characteristics and skills
2. **Activities:** how is the activity currently carried out? Why? What can be improved?
3. **Context:** the environment of the activity
4. **Technologies:** what tools are used now, and how might new developments be used?

### People

1. Cognitive characteristics - level and duration of attention, perception, memory, learning abilities, cognitive capabilities, fears, personality characteristics
2. Physical characteristics - age differences, physical abilities,
3. What motivates, pleases and engages - affect
4. experience & expectations - novice v's expert
5. language
6. Culture - For example, in Microsoft Excel there are two buttons, one labeled with a cross and the other a tick. In the US a tick is used for acceptance and the cross rejection, but in Ireland a tick or a cross can be used to show acceptance (e.g. a cross on a ballot paper).
7. special needs - blindness, colour blindness, deafness, wheel chair user
8. Homogenous vs heterogeneous user groups - website site users are (normally) heterogeneous - many different types of people; users of a company's intranet are (generally) homogenous
9. Discretionary vs committed users - does the user have a choice? if yes, then you need to encourage them to return
10. Infrequent vs frequent users - if users are normally infrequent, then interface must be particularly 'helpful' as users will forget how to complete complicated tasks.

### Activities

1. Goals, tasks and actions
2. Regular or unusual, weekly? Yearly? - frequent tasks should be easy to do; infrequent tasks should be easy to learn or remember
3. Well-defined or vague
4. Continuous or interrupted - user may need to 'find their place' again
5. Current task practices
6. Individual vs co-operative work
7. Multi-tasking vs serial tasks
8. Passive vs active,
9. Quality vs quantity trade-off
10. Data input requirements
11. Length of time on tasks - peaks and troughs of working, need for fast response
12. Coping with errors - presentation of error messages, how to deal with them, how the system accommodates them, significance of errors, safety critical errors

### Context

1. Physical environments - noisy, cold, wet, dirty, stressful, uses dangerous materials, sunny
2. Social environments - channels of communication, structure, centralisation vs decentralisation, home, mobile, training materials
3. Organisational context - relationships with customers, other staff, effect on work practices and job content, role, deskilling, job loss, shift in power
4. Circumstances under which activities happen (time, place, pressure of work/time)
5. Amount and type of support for activities - tuition, manuals, demonstrations, new knowledge, new skills

### Technologies

1. Input - Getting data in; getting commands; security
2. Output - Characteristics of different displays (e.g. video vs. photographs; speech vs. screen)
3. Communications - Between people, between devices, speed, etc. - What is connected to what?
4. Size of screen
5. GUI or not?
6. Sound?
7. Networked or stand alone.
8. Always on or dial in?
9. Real-time systems;

10. Safety critical systems;
11. Walk-up-and-use systems (e.g. kiosks) / Office systems / Palm pilot application / Web site.

## Why Use It?

1. More detailed design brief
2. And/or specification
3. And/or user requirements document
4. Key points for evaluation

## Participants Needed

One or more experts needed

## Task List

1. **brainstorm** the variety of P, A, C and Ts that are possible
2. Explore design implications
3. Look for trade-offs between combinations of PACT
4. Think about how these might effect design

## Conditions Required

1. Some information about (similar) system is required
2. Marketing personnel may be involved also

## Example

1. **pact analysis for a tourism website**

## Exercise

In groups of 2/3 identify

1. People, activities, contexts, technologies of an in-flight entertainment system using the pointers above.
2. What are the design implications?