IP-BASED PUSH-TO-TALK ON A MOBILE PHONE

By

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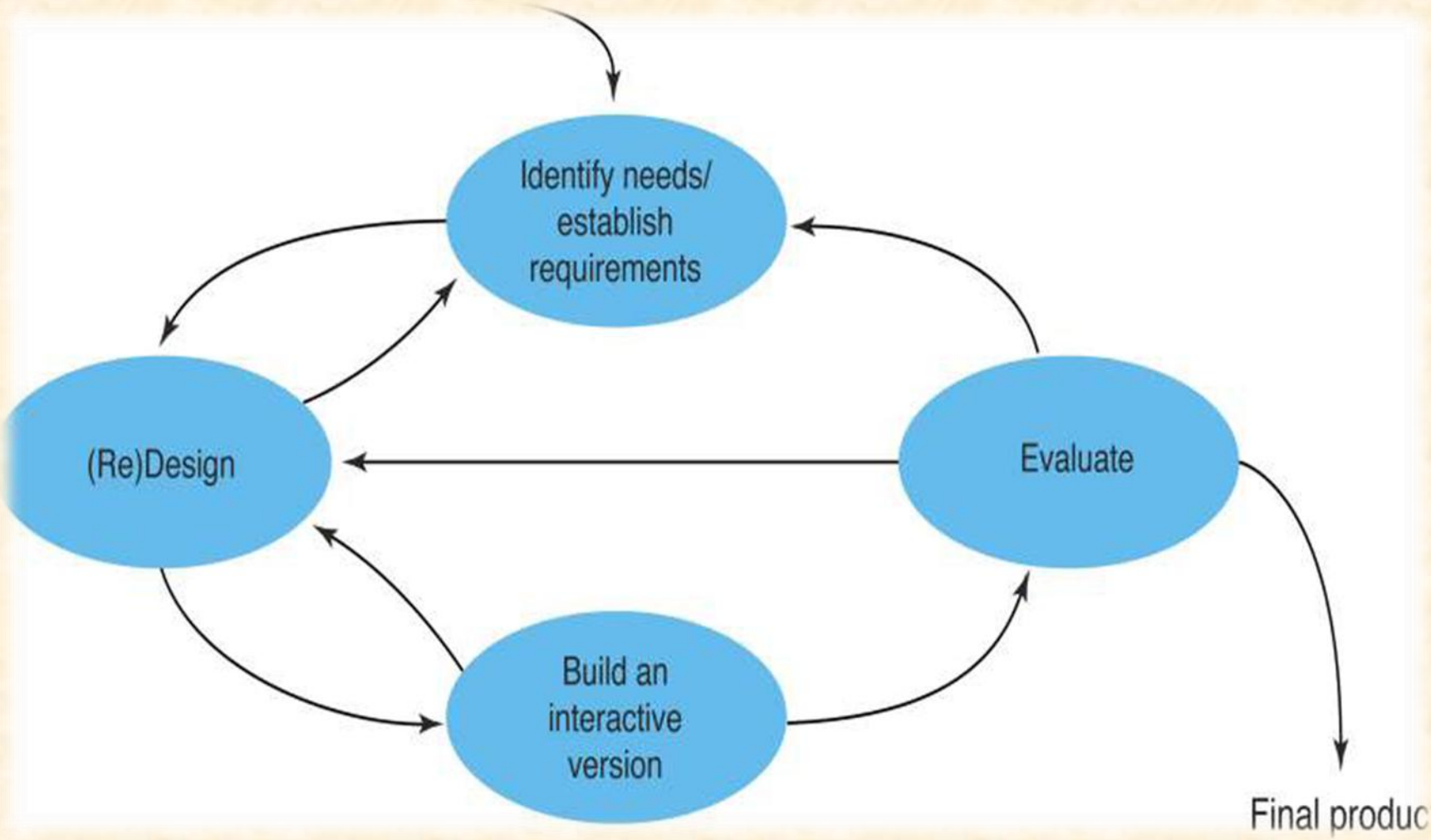
INTRODUCTION

- Push to Talk (PTT)
  - Walkie-talkie concept
  - Half-duplex communication
- IP-Based Push to Talk – PTT using IP as medium of transmission
  - Voice instant messaging
- PoC - Push to Talk over a Cell phone

REQUIREMENTS ANALYSIS

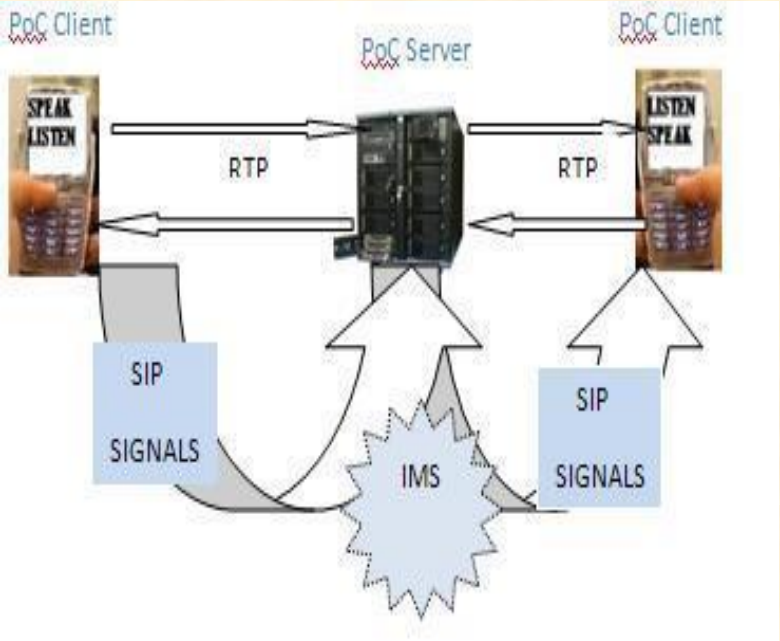
- User requirements
  - Data collection – questionnaires
  - Affordability
- Requirement Analysis
  - Client-server and Peer-to-Peer
  - Protocols – SIP, RTP, SIMPLE

DESIGN

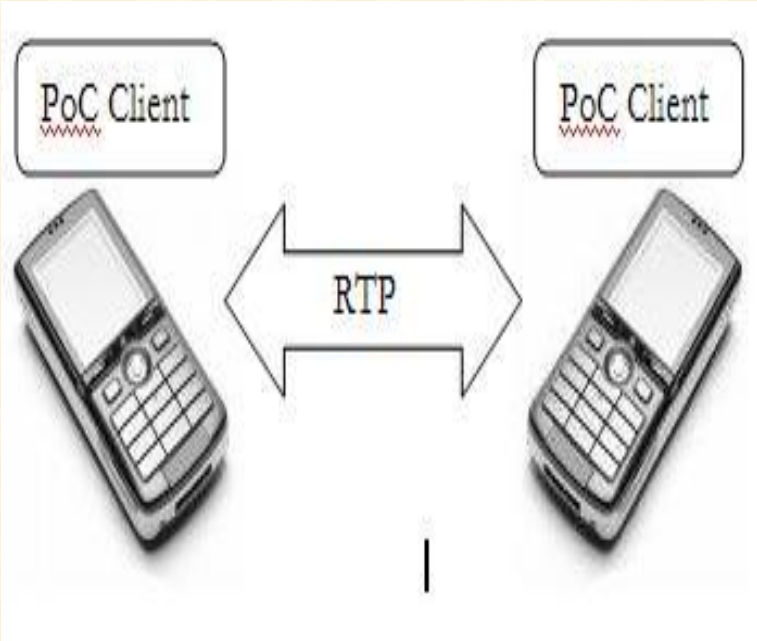

Identify needs/
establish
requirements
(Re)Design
Evaluate
Build an
interactive
version
Final produc

IMPLEMENTATION

Client server



Peer-to-peer



TESTING

- Six users
- Task scenarios
  - Social
  - Emergency
  - Corporate – secretariat
- Data collection - questionnaires

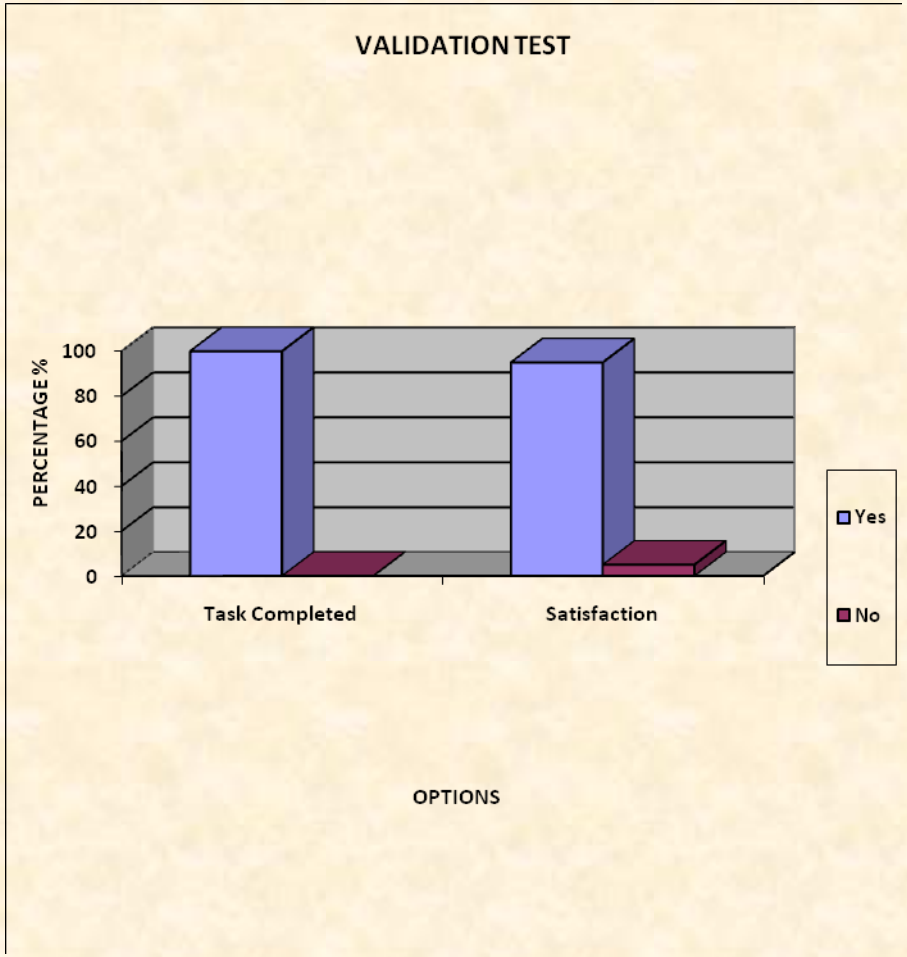
Participant	Gender	Level of study	Age	Use of IM
1	M	Postgraduate	26-28	Yes
2	M	Undergraduate	23-25	Yes
3	M	Undergraduate	20-22	Yes
4	F	Undergraduate	20-22	Yes
5	M	Postgraduate	23-25	Yes
6	M	Postgraduate	20-22	Yes

TESTING CONTINUE

- Testing Strategies
  - Validation Testing
  - Performance Testing
  - Usability Testing

VALIDATION TESTING

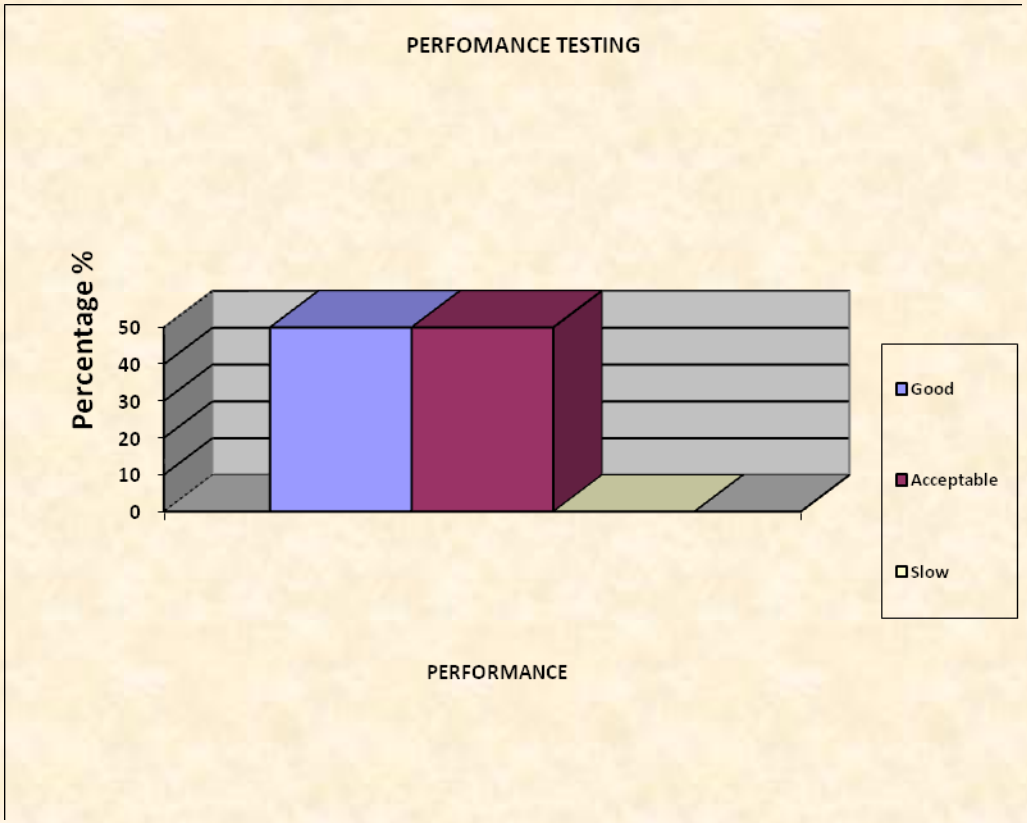
- Survey Questions
  - *Did you manage to complete your task?*
  - *Are you satisfied with the efficiency of the application?*



PERFORMANCE TESTING

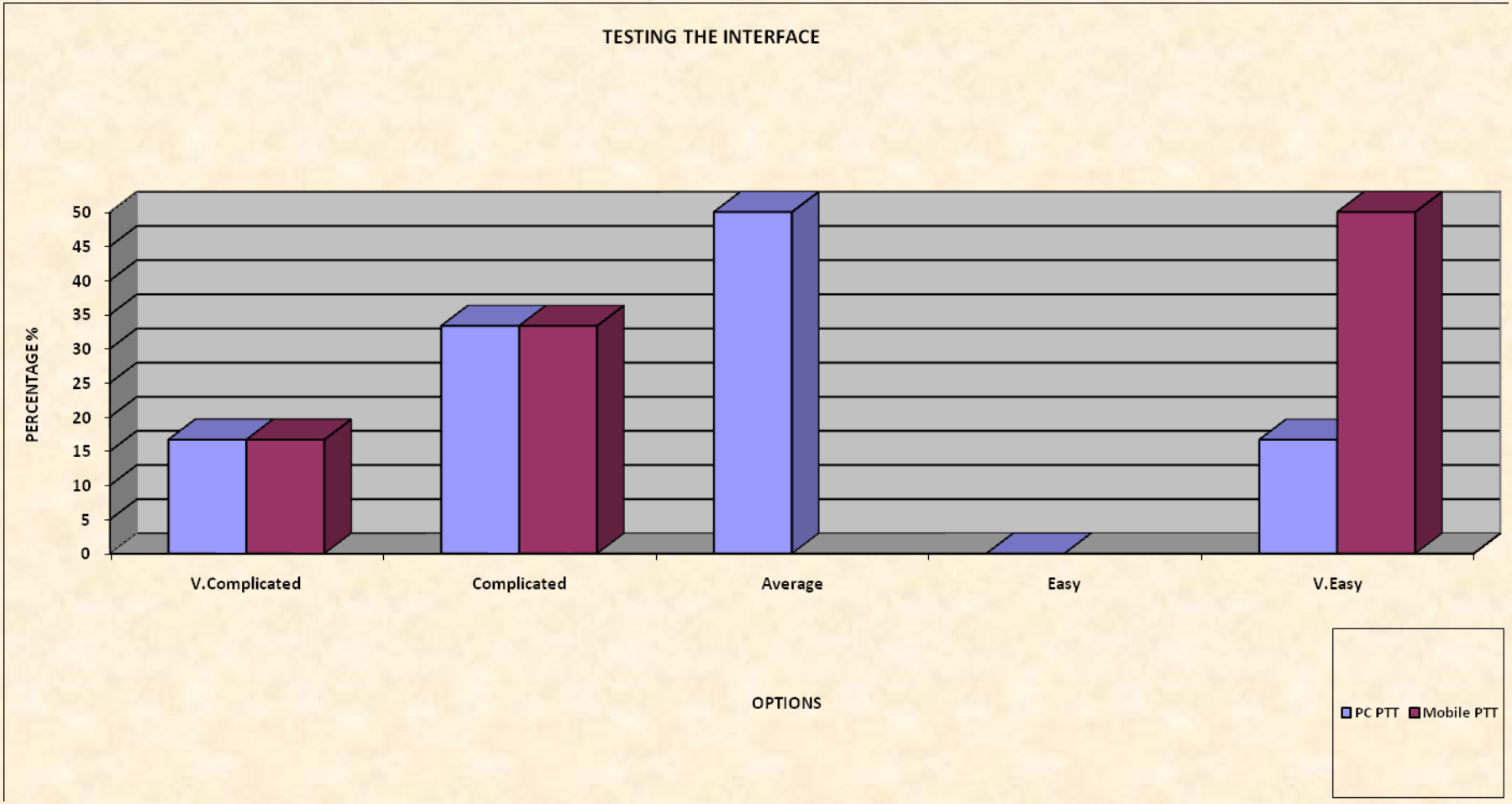
Resource Usages

- Uses Windows Task
- 2% CPU usage
- 0.09% bandwidth



USABILITY TESTING

Question: *How would you rate the interface?*



DEMO

- PC
  - Make a half duplex connection between 2 PC's
  - The use of mouse clicks instead of press
    - Initiate a connection through button click
    - Closes the connection by clicking the same button
- Mobile Phone
  - Make a half duplex connection between phones

THANK YOU
Q&A