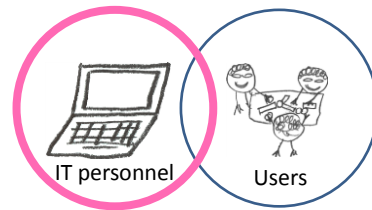


## IT support

### Learning aim

- To be able to
  - Support users
  - Manage IT support
- Background for evaluating support in Assignment 2
- Literature
  - Chapter 14. IT support
  - Bruton (2002) [How To Manage The IT Helpdesk - A guide for user support and call centre managers](#) chapter 23 & 27
- Additional literature
  - Santhanam, Seligman, Kang (2007) Postimplementation Knowledge Transfers to Users and Information Technology Professionals
  - Munkvold (2003) End User Support Usage



1

## Interactions between CoPs

<p><b>Boundary interactions</b></p> <ul style="list-style-type: none"> <li>– Members from different CoPs take part in common activities</li> </ul>	<p><b>Examples</b></p> <p>Teaching</p> <p><b>Support</b></p>
<p><b>Boundary objects</b></p> <ul style="list-style-type: none"> <li>– Object making sense to more than one CoP</li> </ul>	<p>Computer application</p> <p>Instruction sheets</p>
<p><b>Broker</b></p> <ul style="list-style-type: none"> <li>– Member of two CoPs</li> <li>– Can introduce practice from one into the other</li> </ul>	<p><b>Superuser</b></p> <ul style="list-style-type: none"> <li>– IT community + another</li> </ul>

2

## On the phone

- Understanding each other
  - Customer: I'm getting poor quality prints – sort of smudges on them.
  - Troubleshooter accesses knowledge base and selects 'image quality'.
  - Troubleshooter: When it's printing?
  - Customer: Yes.
  - Troubleshooter: OK, do you get this when it's copying?
  - Troubleshooter: So you get it printing and copying and they're like smudges?
  - Troubleshooter selects 'smears and smudges' in knowledge base.
- Helping the user navigate
  - Troubleshooter: OK could you - do you know where the xerographic module is in the machine?
  - Troubleshooter: OK, I'll tell you exactly where it is as there's something I want you to try, just to see if this will rectify the problem for you – if you open the front door of the machine ...
- Thereafter leading the user through the troubleshooting cycle
  - Crabtree et al., 2006

3

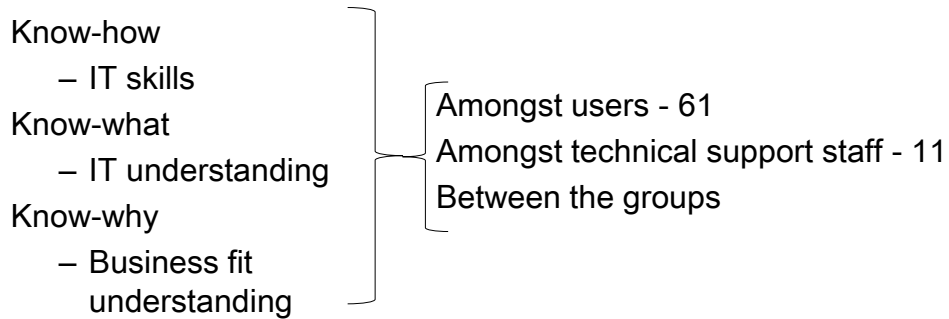
## Study of competence development — users and technical support staff

- Bank in USA
  - Introduced a new information system
  - Training
  - Help desk with technical support staff
  - Participant observations by one of the supporters
    - User requests
    - Meetings
- Santhanam et al, 2007

4



## Competence



5

## Users learning from each other

- Know-what - IT understanding
  - Desiree told me she got a duplicate client problem. She went through the list to find an existing client profile, but she couldn't. After she created a new one, found out two records of the same client. She reports that Vera had the same problem and talked to her.

6

## Support staff learning from each other

- Know-what - IT understanding
  - I told Brenda that the day before's duplex printing by Gail was not a RACER problem but either a Windows or printer problem. She was relieved. "Oh, I'm so happy that it is not a RACER problem."

7

## Support staff learning from users

- Know-why – Business fit understanding and problem solving
  - Earl has a deal that the BOT total and the gross totals are different on the CLAF. He tried to put a negative number in the BOT total field to compensate for these differences. He got excited last Thursday, and told me that. I asked him to let me know the result. This morning, he put a note on my table to tell me that it worked. I went to his cubicle and talked to him. He was bit upset. He talked to Brenda about the innovation; Brenda thought people may get confused about the negative number. He explained that it was a good idea.

8



## Support staff learning from users

- Know-why – Business fit understanding
  - The fact that the system allows one user to see another's work.
  - The need for forms that have had changes to be reapproved
- Know-what – IT understanding
  - When forms are created in other applications and then are dropped into the work flow system, the display is completely messed up.
  - Bank logos do not display properly on every page.
  - Users are not able to save the credit agreement form.

9

## User learning

### Help desk encounters

Know-how – IT skills	135
Know-what – IT understanding	102
Know-why – Business fit understanding	24

### Meetings – learning from support staff

Know-how – IT skills	14
Know-what – IT understanding	29
Know-why – Business fit understanding	1

### Meetings – learning from each other

Know-how – IT skills	1
Know-what – IT understanding	14
Know-why – Business fit understanding	22

10



# Support staff learning

Help desk encounters – learning from users

Know-how – IT skills	5
Know-what – IT understanding	24
Know-why – Business fit understanding	46

Help desk encounters – learning from each other

Know-how – IT skills	16
Know-what – IT understanding	43
Know-why – Business fit understanding	17

Meetings – learning from users

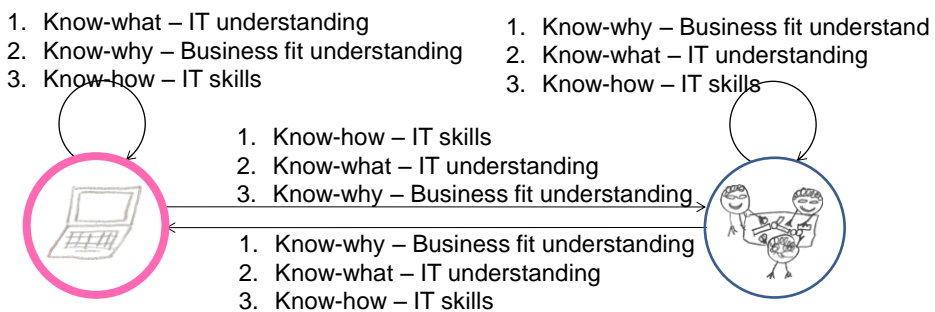
Know-how – IT skills	0
Know-what – IT understanding	2
Know-why – Business fit understanding	4

Meetings – learning from each other

Know-how – IT skills	0
Know-what – IT understanding	9
Know-why – Business fit understanding	15

11

## Support staff – Users learning



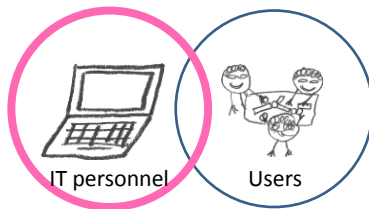
Works better with know-who – knowing whom to ask

12

## IT support vs Super-users

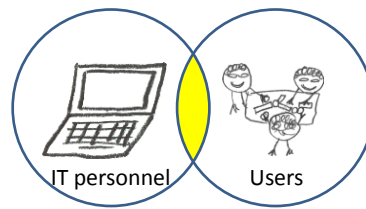
### IT personnel support

- Survey in Norwegian University  
222 users  
49% prefer IT support  
31% prefer colleagues  
Nilsen & Sein, 2004



### Super-users

- Survey of US middle managers  
98 users  
38% prefer super-users  
31% prefer colleagues  
19% prefer IT support  
Govindarajulu et al., 2000



13

## User support vs Competence level

### Supporters

- Information officers
- IT support personnel
- Superusers

### Media

- Helpdesks – personal meeting
- Helplines – calling on the phone
- E-mail

### On-line help

- Help functionality in the software

### Internet-resources

- E-mail lists
- Blogs
- FAQs

14

## Users' preferences

	Informal	Formal
Personal	Consultation with colleagues	Consultation with IS professionals
Impersonal	External documentation	Internal documentation

Munkvold (2003) End User Support Usage

15

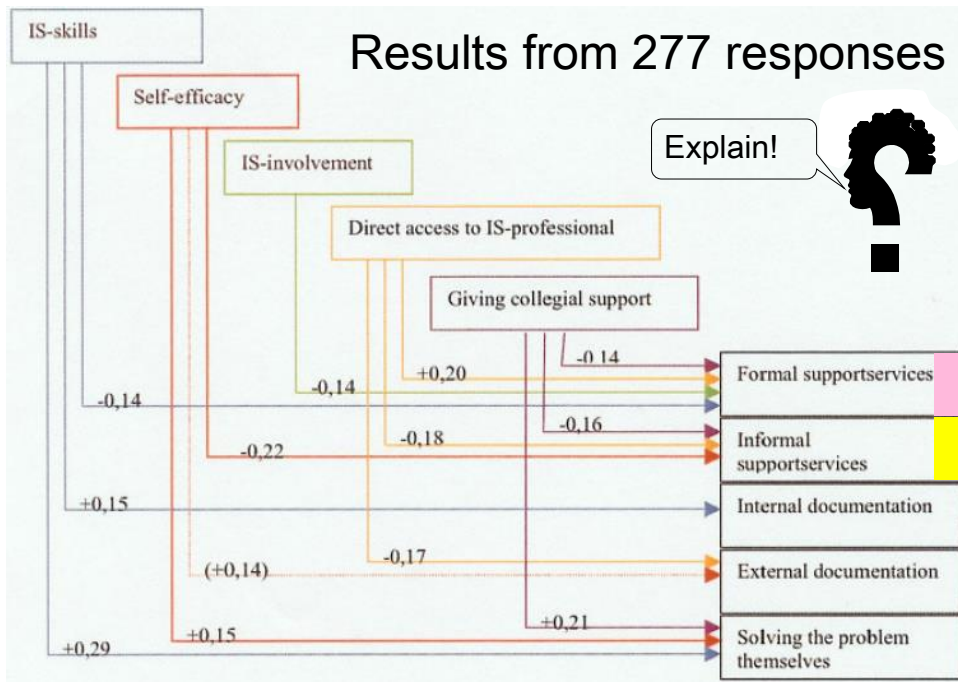
## Users' background

- Skills
  - In what degree a person manages to solve different problems with help from different work-related information system tools
- IT involvement
  - The importance and personal relevancy an end user attached to a computer and the use of it
- IT self-efficacy
  - People's perception of their own capabilities to use computers to accomplish a task

16







## Support quality

- Support factors vs satisfaction
  - 484 users
  - US university

Warning!  
Large variations

Rank	Factor
1	Fast response time from system support staff to remedy problems
2	Data security and privacy
3	User's understanding of the system
4	New software upgrades
5	Positive attitude of information systems staff to users
6	A high degree of technical competence of systems support staff

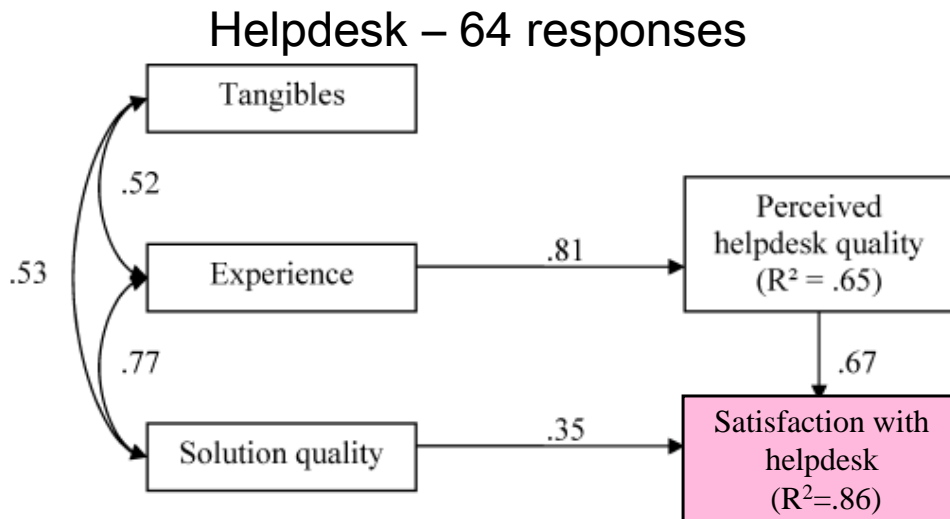
- Quality of training documentation received the lowest score

Shaw et al., 2002

## Helpdesks and helplines

- Helpdesk
    - Personal visit
  - Helpline
    - Telephone call for support
  - Perceived support quality
    - Tangibles
    - Reliability
    - Responsiveness
    - Assurance
    - Empathy
  - Perceived IT solution quality
    - Correctness
    - Promptness
  - Survey of consumer – supplier relations
    - Not in-house support
- van Velsen, Steehouder, de Jong (2007)

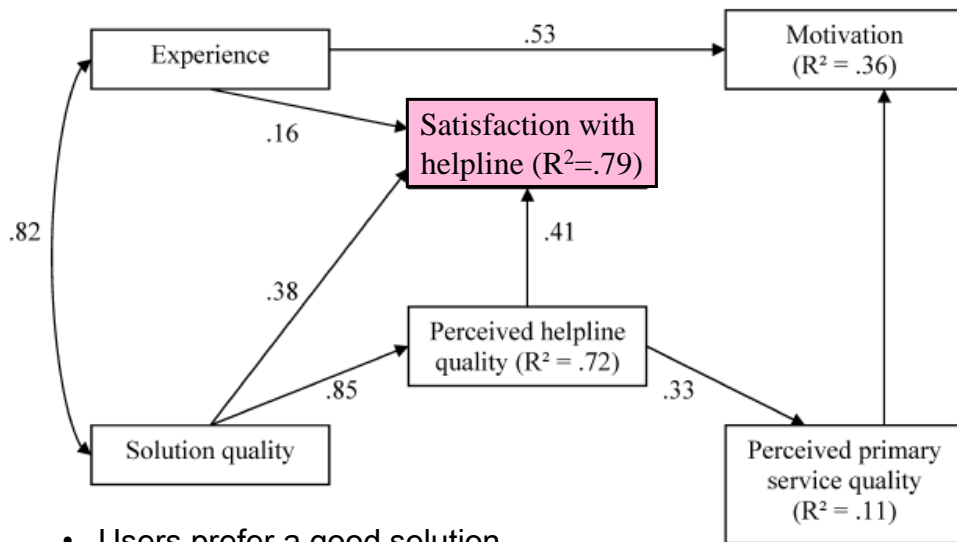
19



- Users prefer a good experience

20

## Helpline – 242 responses

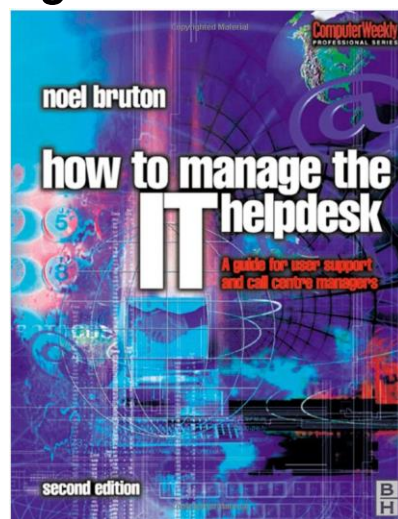


- Users prefer a good solution
  - Motivation strongly affected by the experience

21


## Technical support staff qualities — support managers' view

- Patience
- Assertiveness
- Thoroughness
- Enthusiasm
- Responsibility
- Technical knowledge
- Empathy
- Communicative ability
- Works well under pressure
  - Bruton, 2002



22

## Information Technology Infrastructure Library ITIL

- Concepts and practices
  - Information Technology Services Management (ITSM)
  - Information Technology (IT) development
  - IT operations
- Office of Government Commerce, UK
 
- Commercial package of guidelines

23

## IT executives' perception of ITIL

- Survey of 441 IT managers in large business
  - UK, US and other
- Higher level of maturity of ITIL
  - Improved alignment of IT and business
  - The number of benefits provided by IT that are acknowledged by the business increases

Marrone & Kolbe (2011) Uncovering ITIL claims: IT executives' perception on benefits and Business-IT alignment. *Inf Syst E-Bus Management* 9:363–380

24

