WELCOME!

TALLINN UNIVERSITY OF TECHNOLOGY

Managerial Psychology

Prof. Mare Teichmann

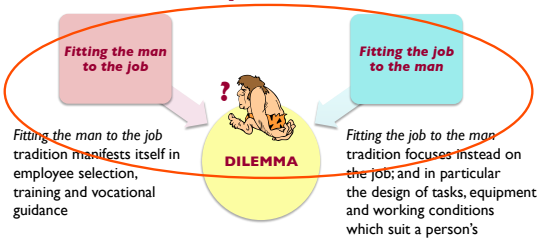
TALLINNA TEHNIKAÜLIKOOL
TALLINN UNIVERSITY OF TECHNOLOGY

Changing world of Work and Management

Content: Dilemma: Fitting the man to the job or Fitting the job to the man. What has changed is the work of time and space in front of it when we work and where we work. Increased the amount of information - simultaneous two opposing tendencies - on the one hand and on the other by the glut of information, the information necessary for the deficiency. "Virtual reality" and "real reality" in work process. Higher demands for productivity, efficiency, for employees and orientation towards result and business outcome.

TALLINN UNIVERSITY OF TECHNOLOGY

Management dilemma: focus to the productivity or to the person

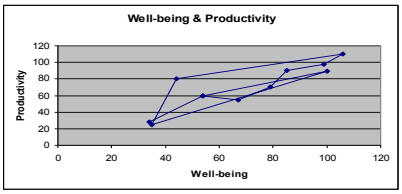


Fitting the man to the job tradition manifests itself in employee selection, training and vocational guidance

Fitting the job to the man tradition focuses instead on the job, and in particular the design of tasks, equipment and working conditions which suit a person's physical and psychological characteristics

TALLINN UNIVERSITY OF TECHNOLOGY

Wellbeing and performance *(Cooper, 2011)*



Positive correlation between wellbeing and performance (r=0.3)

(Cropanzano & Wright, 1999; Wang, 2000; Donald et al., 2005)

TALLINN UNIVERSITY OF TECHNOLOGY

Estonian Occupational Stress & Quality of Life Study

Teichmann, M. et al. (2006)

Table 2. Intercorrelations between Occupational Stress-Related and WHOQOL-100 Variables

	Job satisfaction	Mental Well-being	Physical Well-being	WLCS	Control Coping	Support Coping
Sample 1 – Managers						
WHOQOL-100 Index	.42***	.57***	.47***	-.39***	.42***	.24***
Physical health	.28***	.52***	.51***	-.30***	.24***	.13*
Psychological well-being	.39***	.57***	.41***	-.35***	.37***	.17**
Level of independence	.26***	.38***	.41***	-.24***	.28***	.14*
Social relationships	.34***	.41***	.35***	-.26***	.25***	.15**
Environment	.42***	.39***	39***	-.38***	.28***	.11*
Spirituality/ Religion/ Personal beliefs	.20***	.32***	.14**	-.22***	.33***	.24***

TALLINN UNIVERSITY OF TECHNOLOGY

Most rapid changes

Level	*BASICS*	*WORK*	*TECHNOLOGY (Techno-psychology)*	*INDUSTRIAL RELATIONS*
Individual	Employee (person) & Personnel Psychology	Employee & Work	Employee & Technology	Employee & New Industrial Relations
Organization	Organization & Organizational Psychology	Organization & Work	Organization & Technology	Organization & New Industrial Relations
Society	Society (community) & Social Psychology	Society & Work	Society & Technology	Society & New Industrial Relations
Legal	Legal Framework	Labor Law, Occupational Health & Safety Law	Techno Law, Intellectual & Industrial Property & Competition Law, ICT Law	Labor Law, Unions' & Work Councils' Laws, Contract Law
Research & Implementation	Research & Implementation Methods	Qualitative & Quantitative Research Methods and Multilevel Analysis Implementation Methods		

TALLINN UNIVERSITY OF TECHNOLOGY

Changes in work

Redefinition the "work" itself

TALLINN UNIVERSITY OF TECHNOLOGY

Changes in world of work

1. *Time* – when we work
2. *Physical space and location* – where we work
3. *Information* – with what we work
4. *Virtual reality* – how and with whom we work
5. *Increased demands* for employee: psychological processes, knowledge, skills, competences and professionalism, lack of control, increase of communication, teamwork and networking, increase of complexity of work, coping with new technology
6. *Possibility of job sharing, flexible working and career breaks*

TALLINN UNIVERSITY OF TECHNOLOGY

1. Time

- Flexible work (more flexible working arrangements and hours)
- Distributed work - distribution of activities, tasks
- Multi-local work and workplaces
- Mobile work
- Virtual work

We work everywhere!

Work has become independent from the working time and also from workplace

Work does not depend on working hours and the workroom (workplace) and even not on location

Example:

People can work in coffee shop, in bus, at midnight etc.

TALLINN UNIVERSITY OF TECHNOLOGY

Work – life balance

Work-life balance, in its broadest sense, is defined as a satisfactory level of involvement or 'fit' between the multiple roles in a person's life *(Hudson, 2005)*

Work–life balance is a concept including proper prioritizing between "work" (career, ambition) and "life" (health, pleasure, leisure, family, spirituality)

TALLINN UNIVERSITY OF TECHNOLOGY

Work – life balance

Boundaries between work and non-work i.e. work / life balance are not so clear anymore

Work-life balance for any one person is having the 'right' combination of participation in paid work (defined by hours and working conditions) and other aspects of their lives

This combination will change as people move through life and have changing responsibilities and commitments in their work and personal lives

Balance between work and non-work (in sense of activities and time)

Higher demand for time management

TALLINN UNIVERSITY OF TECHNOLOGY

2. Physical space and location:
multi-local work and workplaces

Change in working time and working place

Employees have many methods, such as e-mails, computers and cell phones, which enable them to accomplish their work beyond the physical boundaries of their office

Employees may respond to an email or a voice mail after-hours or during the weekend, typically while "not officially on the job"

Researchers have found that employees who consider their work roles to be an important component of their identities will be more likely to apply these communication technologies to work while in their non-work domain *(Boswell, Olson-Buchanan, 2007)*

TALLINN UNIVERSITY OF TECHNOLOGY

Distributed work

Many workers communicate regularly with distant coworkers

Work teams are spread across different cities or countries

Joint ventures and multi-organizational projects entail work in many locations

Distributed work alters how people communicate and how they organize themselves and their work, and it changes the nature of employee-employer relationships *(Hinds, Kiesler, MIT Press, 2012; Vartiainen, 2007)*

TALLINN UNIVERSITY OF TECHNOLOGY

Mobile and virtual work

In 2012, the definition of mobile worker has expanded to to include pretty much everyone in the organization

Mobile working is about freedom and simplicity

New technologies are making it easy to access information and work regardless of location

Virtual communication

Virtual teams

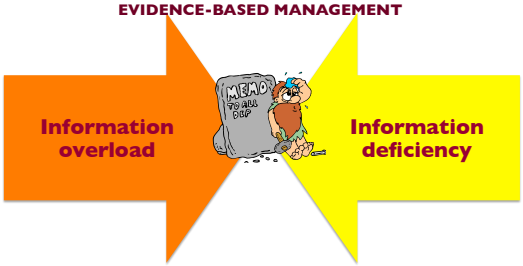
Virtual networks

Employees were never before communicated with so many peoples (including forigners)

TALLINN UNIVERSITY OF TECHNOLOGY

3. Information

EVIDENCE-BASED MANAGEMENT



New competence - knowledge and skills to find necessary information which is relevant, reliable, valid for use in particular purpose with most timeless way

TALLINN UNIVERSITY OF TECHNOLOGY

Information

Information overload is becoming a serious drag on productivity

56% of workers are overwhelmed by multiple simultaneous projects and interrupted too often; one-third say that multi-tasking and distractions are keeping them from stepping back to process and reflect on the work they're doing

Information deficiency

Simultaneously, it is not easy enough just to find the information people need to do their jobs

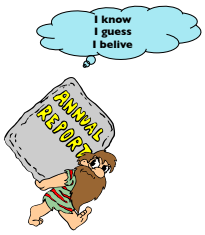
Industry analysts estimate that information workers spend up to 30% of their working day just looking for data they need

TALLINN UNIVERSITY OF TECHNOLOGY

Information

New competence - Evaluation the information

- Validity
- Reliability
- Accuracy
- Relevancy
- Authority
- Currency
- Point of view
- Objectivity
- Triangulation
- Manipulations
- Stereotypes, emotional language, logical mistakes etc.
- Information source

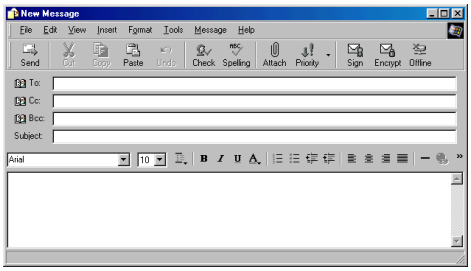


TALLINN UNIVERSITY OF TECHNOLOGY

Information

Another **new competence** is how to create the shot

MESSAGES



TALLINN UNIVERSITY OF TECHNOLOGY

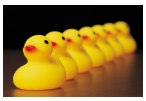
Information

New phenomenon

Dependence from information and investment own time for it

- ✓ Global news (BBC, CNN etc.)
- ✓ Local news (local broadcast, TV, newspapers)
- ✓ Educational information for broader own understanding, beliefs about world (for example: vales reproductive behaviour)
- ✓ Professional news – Lifelong Learning
- ✓ etc.

Chinese brain-wash



TALLINN UNIVERSITY OF TECHNOLOGY

Example: Monday morning' E-mail syndrome

It became evident that employees' feel fear and paralysis prior to opening their own mailbox on Monday morning

The aim of studies was to clarify whether person-technology interface is a source of pressure for academics at Tallinn University of Technology (N=306) and the Polytechnic Institute at University of Bordeaux (N=44)

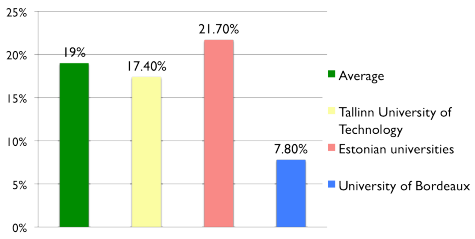
1) A web-based survey of occupational stressors using the checklist Academics' Occupational Stress Inventory in Estonian and French was conducted
2) Interviews (N=16) with academics from TUT, Lund University, Bordeaux University

Gender or age differences were not found

TALLINN UNIVERSITY OF TECHNOLOGY

Item: Need to use new equipment, technologies, methods of didactics as a stressor for academics

(Teichmann et al., 2012)



Relatively strong relation seen in average stress level (r=0.50; p<0.001), as well as relative importance of stressors (r=0.49; p<0.001)

TALLINN UNIVERSITY OF TECHNOLOGY

Example: Monday morning' E-mail syndrome

We found that source of pressure was the need to use new equipment, technologies and/or didactic methods

In survey we found a strong relationship ($r > 0.35$) between this item and 57 other items of occupational stress

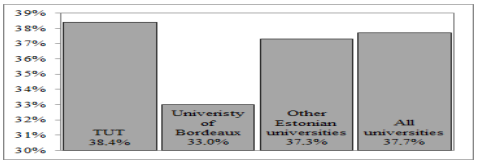
Interviews focused mainly on virtual communication in university

In interviews the employees described *Monday morning E-mail syndrome* in terms of sources of pressure similar to those that appeared in the survey i.e. feeling fear and paralysis prior to opening their own mailbox on Monday morning *(Teichmann et al., 2013)*

** Research project "Occupational stress study and web-based occupational stress prevention system for academic staff of Estonian universities", supported by Primus grant nr 3-8.2/23 from the European Social Fund*

TALLINN UNIVERSITY OF TECHNOLOGY

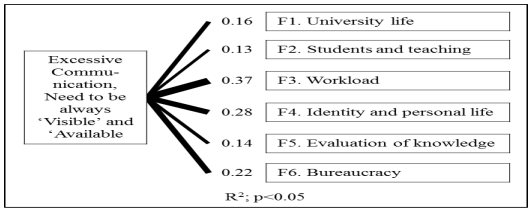
Example: Monday morning' E-mail syndrome



E-mail stress (percentage of academics who noted a particular source of pressure troublesome)

TALLINN UNIVERSITY OF TECHNOLOGY

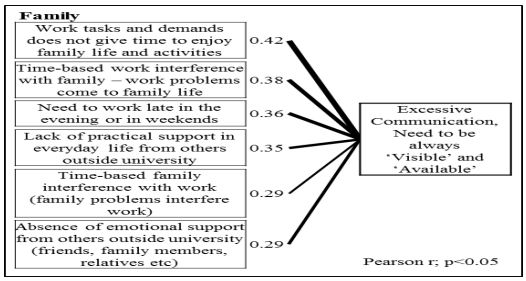
Example: Monday morning' E-mail syndrome



Inter-relations between e-mail stress, i.e. excessive communication and the need to always be "visible" and "available", and all six occupational stress factors

TALLINN UNIVERSITY OF TECHNOLOGY

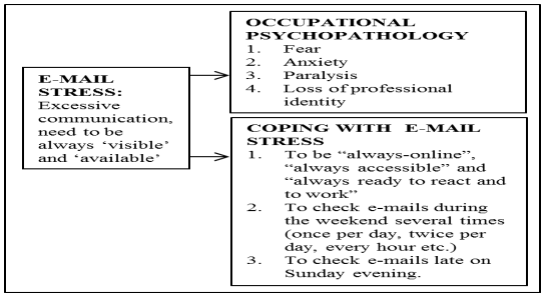
Example: Monday morning' E-mail syndrome



E-mail stress and work-family interference

TALLINN UNIVERSITY OF TECHNOLOGY

Example: Monday morning' E-mail syndrome



Monday morning e-mail syndrome: If - then model

TALLINN UNIVERSITY OF TECHNOLOGY

Information

Examples

- ✓ Multi-tasking
- ✓ Coping with spam
- ✓ Text-talk and language
- ✓ Cyber-bulling
- ✓ Social inclusion and isolation at work
- ✓ Techno-stress
- ✓ Integrating online and offline work
- ✓ Information overload *versus* information deficiency and "the global village" phenomenon

TALLINN UNIVERSITY OF TECHNOLOGY

4. Virtual reality

"Real life" *versus* "virtual life" - boundaries between "real life" *versus* "virtual life" and "real work" *versus* "virtual work" are not clear

Bill Gates (2005). The New World of Work
Vinod Khosla (2.09.2012)

- ✓ Constant improvement a personal productivity i.e. "always-on" work environment, prioritizing
- ✓ Interruptions at work
- ✓ Organizing the work incl. change management
- ✓ Creativity and innovation
- ✓ Occupational stress
- ✓ Performance and quality of working life etc.

TALLINN UNIVERSITY OF TECHNOLOGY

Virtual reality

Examples:

E-government
Virtual work
Virtual teaching and learning
E medical consultation
CV-online
E-coaching and online social support
E-tests and other online services
E-library
E-book
E-newspaper
E-shop etc.

TALLINN UNIVERSITY OF TECHNOLOGY

Virtual reality

New technology
Work and communication in cyberspace

For example:

- ✓ Virtual environment of work (incl. instant messaging, social media networks, Wi-Fi, and cell phones)
- ✓ Technologies as our professional identity, changes in work (work itself / work organization) and work life
- ✓ Professional identity management
- ✓ Unique roles in cyberspace
- ✓ Regressive behaviour
- ✓ New competences

TALLINN UNIVERSITY OF TECHNOLOGY

Virtual reality

Relationship at work

- ✓ The psychology of cyberspace relationships at work
- ✓ Differences of work relationships *via* cyberspace (incl. long-term work relationships)
- ✓ E-mail communication and work relationships
- ✓ Conflict solving in cyberspace
- ✓ Work group dynamics in cyberspace
- ✓ Intergroup conflicts and cooperation

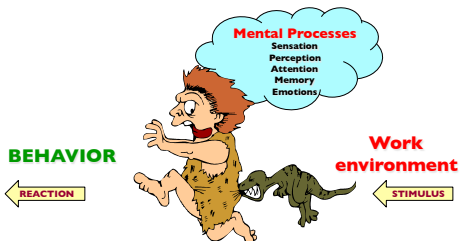
TALLINN UNIVERSITY OF TECHNOLOGY

5. Demands for employee

Psychological processes

- Perception
- Attention – selection, divided attention – multi-tasking

TALLINNA TEHNIKAÜLIKOOL
TALLINN UNIVERSITY OF TECHNOLOGY



TALLINN UNIVERSITY OF TECHNOLOGY

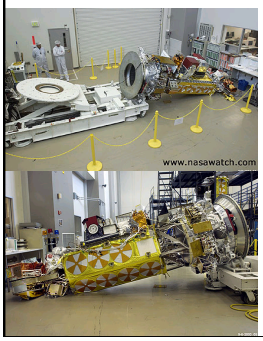
Demands for employee

Psychological processes

- Memory – short time memory, operative memory
- Emotions – positive emotions at work, expression of emotions at work, in virtual communication
- Psychological "needs" in virtual reality i.e. need to express own' emotions
- Software to track emotional health
- Cyberspace humour and expression of emotions
- Thinking – how using the technology changing the patterns of thinking
- Coping with new and newer technologies i.e. human errors

TALLINN UNIVERSITY OF TECHNOLOGY

Psychological processes and human error



- SAN JOSE, California (AP) -- A $239 million satellite toppled to a factory floor last year because nobody bothered to check that it was secure before moving it, according to a NASA investigation board's report on the mishap.
- The NOAA N-Prime satellite fell about 3 feet as it was being moved from a vertical to a horizontal position on September 6, 2003, to remove an instrument at a facility in Sunnyvale, Calif. **Nobody noticed that the 24 bolts that should have secured the spacecraft were missing.**
- It will cost an estimated $135 million to rebuild the spacecraft's main section and two damaged instruments. No one was injured in the incident.

TALLINN UNIVERSITY OF TECHNOLOGY

Psychological processes and human error

- CD-player BMW 745i

TALLINN UNIVERSITY OF TECHNOLOGY

Demands for employee

Lack of control - perceptions of control in the immediate work environment

Locus of control reflects a person's belief in personal control in life (internality) rather than in control by outside forces or individuals (externality) *(Spector et al., 2002)*

Correlations with

- job satisfaction
- psychological well-being
- physical well-being

TALLINN UNIVERSITY OF TECHNOLOGY

Demands for employee

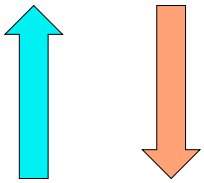
Coping - is thus expending conscious effort to solve personal and interpersonal problems, and seeking to master, minimize or tolerate stress or conflict; constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands; constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands

TALLINN UNIVERSITY OF TECHNOLOGY

Demands for employee

Relationship between bureaucracy and productivity

PRODUCTIVITY



BURAUCRACY

TALLINN UNIVERSITY OF TECHNOLOGY

Demands for employee

Bureaucracy

A commonly cited **cause of low productivity** in an organization is excessive bureaucracy

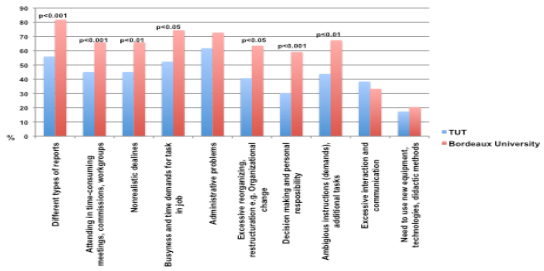
When employees are distracted from their work by the need to fill out irrelevant paperwork they will likely lose some of their productivity

If the management structure of a company becomes confused through heavy bureaucracy this can also lower its productivity

TALLINN UNIVERSITY OF TECHNOLOGY

Demands for employee

Example: *Bureaucracy is a source of occupational stress*



TALLINN UNIVERSITY OF TECHNOLOGY

Demands for employee

Knowledge, skills, competences and professionalism

The term "competence" first appeared in an article authored by Craig C. Lundberg in 1970 and it is widely used in personnel and human resource literature

Competence is "a learned ability to adequately perform a task, duty or role" *(Roe,2002),* relating to a specific type of work to be performed in a particular work setting, and integrating several types of knowledge, skills, and attitudes in a dynamic way

Competence is an integrated set of knowledge, skills and attitudes

TALLINN UNIVERSITY OF TECHNOLOGY

Demands for employee

Professionalism

ADMINISTRATIVE COMPETENCES

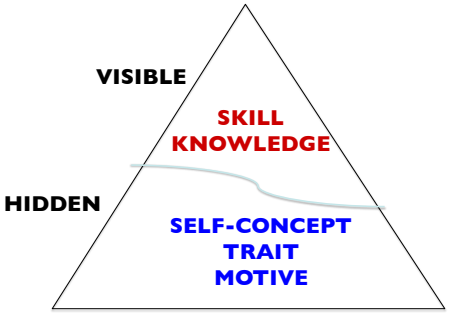
TALLINN UNIVERSITY OF TECHNOLOGY

Demands for employee

Knowledge, skills, competences and professionalism

The term **competence** was known in Europe as a "learned capacity to perform"

In the USA, **competency** is mainly defined as any characteristics relating to superior performance. Spencer and Spencer (1993) created an Iceberg model of competency and have defined competency as "an underlying characteristic of an individual that is causally related with criterion- referenced effective and/or superior performance in a job or situation".



Iceberg Model: Five features of competency

(modified by L.M. Spencer, & S.M. Spencer, 1993)

TALLINN UNIVERSITY OF TECHNOLOGY

Demands for employee

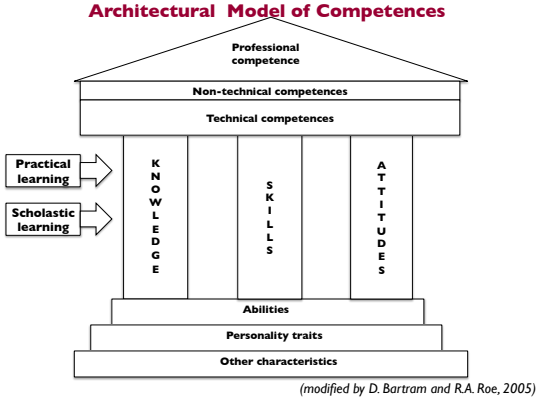
Competence

The second approach is widely used in the EU, and in it competence is defined as a learned capacity to perform

Roe *(2002)* has defined competence as "*a learned capacity of an individual to adequately perform a task, duty or role*".

In an Architectural model offered by Roe the competences should be differentiated into knowledge, skill and attitude, and described through abilities, personality traits, and other characteristics

Architectural Model of Competences



(modified by D. Bartram and R.A. Roe, 2005)

TALLINN UNIVERSITY OF TECHNOLOGY

Example: Engineers' non-technical competences

Employers have reached the conclusion that in addition to excellent technical competence, engineering also requires some kind of successful social behaviours

1) Basic professional engineering (technical) competences

2) Additional competences

1.The engineering non-technical competences are distributed in the following six domains:

2.Professional ethics;

3.Personal competencies;

4.Interpersonal competencies;

5.Innovation and entrepreneurial competencies;

6.Leadership, management and administrative competencies;

7.Law and legal system

TALLINN UNIVERSITY OF TECHNOLOGY

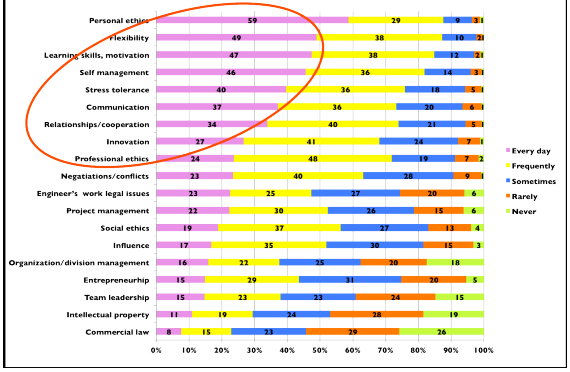
Example: Engineers' non-technical competences *(Parts, Teichmann, 2013)*

Tab. 4 The Within-sample Correlations between the Non-technical Engineering Competences Domains

Domains	1	2	3	4	5	6
1 Ethics	-					
2 Personal	0.24	-				
3 Interpersonal	0.34	0.45	-			
4 Innovation	0.19	0.37	0.40	-		
5 Leadership	0.24	0.31	0.53	0.47	-	
6 Law	0.33	0.20	0.38	0.42	0.49	-

$p<0.001$

Engineers' non-tech. competences



TALLINN UNIVERSITY OF TECHNOLOGY

Example: Professional development as a source of pressure

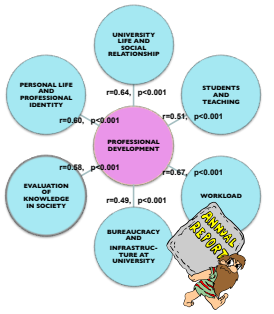
We found that the professional development itself was a source of pressure for academics

Factor: Professional development

- ✓ Permanent need for self-improvement
- ✓ Need to use new equipment, technologies, didactic methods
- ✓ Opportunities for professional development
- ✓ Unclear promotion prospects
- ✓ Inadequate resources (incl. time) for lifelong learning
- ✓ Traveling

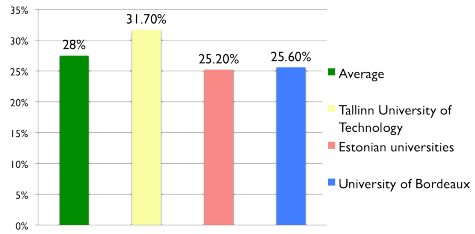
TALLINN UNIVERSITY OF TECHNOLOGY

Professional development of academic staff related with different areas



TALLINN UNIVERSITY OF TECHNOLOGY

Permanent need for self-improvement as a stressor for academics



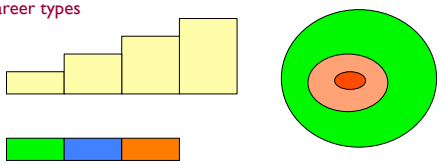
** Research project "Occupational stress study and web-based occupational stress prevention system for academic staff of Estonian universities", supported by Primus grant nr 3-8.2/23 from the European Social Fund*

TALLINN UNIVERSITY OF TECHNOLOGY

6. Possibility of job sharing, flexible working and career breaks

1. job sharing- 2 employees, both are working part time
2. flexible working – only in afternoon or in the morning or…
3. career breaks

Career types



TALLINN UNIVERSITY OF TECHNOLOGY

The new world of work

(Bill Gates, 2005)

A generation of young people who grew up with the Internet is entering the workforce, bringing along workstyles and technologies that feel as natural to them as pen and paper

Over the next decade, we see a tremendous opportunity to help companies of all sizes maximize the impact of employees and workgroups, drive deeper connections with customers and partners, enable informed and timely decision-making, and manage and protect critical information

TALLINN UNIVERSITY OF TECHNOLOGY

Changing nature of work

(Frese, 2008)

- Dissolution of the unity of work in space and time
- Changing job and career concepts
- Faster rate of innovation
- Increase of complexity of work
- Personal initiative *versus* adaptability to the new workplace
- Global competition
- Both larger and smaller units of develop
- More teamwork
- Reduced supervision
- Increase of cultural diversity

TALLINN UNIVERSITY OF TECHNOLOGY

Changing nature of work & changing managerial roles

- Reduced supervision
- Shared vision, mission
- Innovative and productivity oriented organizational culture
- Work environment & organizing the work
- Trust & control (not process, but result oriented control)
- Commitment
- More teamwork
- Open communication
- Increase of cultural diversity – manager is a cultural leader

TALLINNA TEHNIKAÜLIKOOL
TALLINN UNIVERSITY OF TECHNOLOGY

Thank You!

mare@pekonsult.ee