WELCOME!

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Assessment and Measurement in Work and Organizational Psychology

(HPP8370; 4,0 ECTS)

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Methods of assessment

Research design concepts: variables, research setting, generalizability, control, random assignment and random selection, confounding. Research design: experiment, survey designs (questionnaires / psychometric tests, surveys, rating scales, checklists, self-monitoring, cognitive, psychosocial and physiological measurement), action research designs (incl. archival sources analysis, content analysis, action analysis, outcome/product/performance analysis, audio- and videotaping analysis, simulations), and instrument-assisted and computer-assisted techniques. Qualitative methods: focus groups, interviews, case studies, observational techniques (natural environment and analogue environment observation, participant and group observation). Organizational and individual methods: field study, representative sample, sample size, job description and job analysis, and personnel selection methods. Case study as research method. Evidence based research. Methods of measurement of treatment process and outcome, and dimensions of individual differences (e.g., ethnicity, age, gender, education, sexual orientation, economic status) as they relate to WOP assessment.

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Research questions

Every study begins with a research question

This is true for studies done in WOP, whose questions address an issue for an organization

For example: effectiveness of a procedure or program

Research question

- **General:** What causes people to like or dislike their jobs?
- **Specific:** Does level of pay affect how much people like their jobs?

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Hypothesis

The hypothesis is a statement of results that the researcher expects to find

Research studies are conducted to confirm or reject hypothesis

Most hypothesis and research questions come from prior research and theory

The hypothesis and research question is the basis of study and most critical aspect of study. Without a specific and well-formulated question, it is difficult to design a study that will adequately address it. **The question defines the goal or objective of the study**, as well as the phenomena of interest. When both are known, the researcher can design the study and choose the measurement techniques much more easily

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Research design concepts

The design of an investigation specifies the structure of the study

Variables

Variables are basic building blocks of a design.

Variable is an attribute or characteristic of people or things that can vary (take a different values)

For example: common variables in WOP are

- ✓ People's abilities (IQ)
- ✓ Attitudes (job satisfaction)
- ✓ Behavior (absence from work)
- ✓ Job performance (weekly sales)

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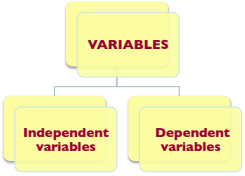
Independent variables are those that are manipulated by the researcher

Dependent variables are those that are assessed in response to independent variables, the variable that is acted on by the independent variable, the outcome variable

The independent variables are assumed to be cause of the dependent variables



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Research design concepts

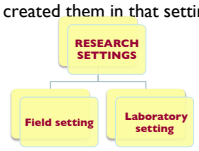
Research setting

A field setting is one in which the phenomenon of interest naturally occurs

For example: organizations are field settings in which to study employee behavior

Laboratory settings are artificial environments in which phenomena of interest do not normally occur. They occur only because the researcher created them in that setting

29% of WOP studies are laboratory studies
(Dipboye, 1990)



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Research design concepts

Generalizability

of results means that the conclusions of study can be extended to other groups of people, organizations, settings, or situations

Generalizability is concern for both settings (field vs laboratory)

For example:

Study done with nurses in one hospital might have different results from the same study done with physicians or nurses from another hospital

Moreover, we cannot be certain that the findings from American or Western research will be generalizable to countries with different cultures, such China or India

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Research design concepts

Control

Every study offers several possible explanations for why the results occurred

Control refers to procedures that allow researchers to rule out certain explanations for results other than the hypothesis they wish to test

For the control, we involve either holding constant or systematically varying the level of one or more variables

For example: pay

Control can be achieved in experiments by the use of control group. A control group is a collection of people who receive a condition or manipulation different from the one of interest

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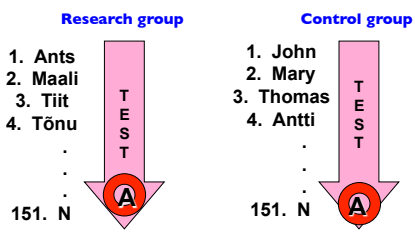
Research design concepts
Control group method



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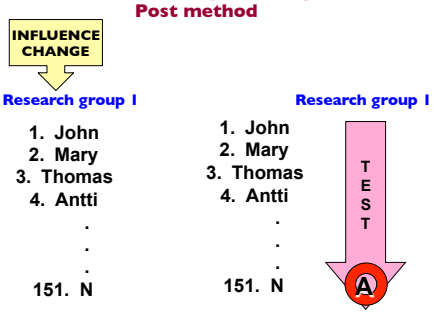
Research design concepts
Post method



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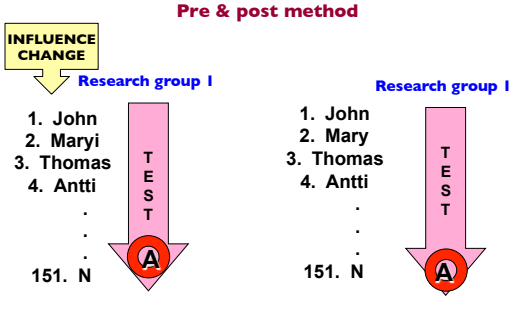
Research design concepts
Pre & post method



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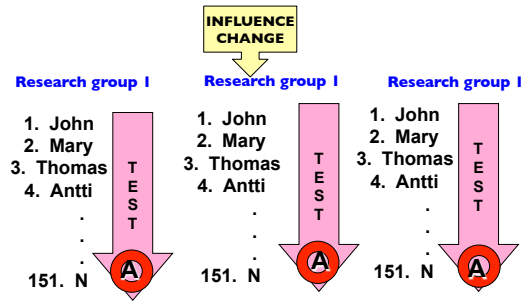
Research design concepts
A-B-A method



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Research design concepts
Random assignment and random selection

Random sample is sample in which every member of relevant population had an equal chance of being chosen to participate in the study

Random assignment occurs when we assign people to various treatment conditions or levels of an independent variable in a non-systematic way. This means that every subject of our study has an equal chance of being assigned to every condition

For example:

Between control group and research group

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Research design concepts
Random assignment and random selection

Random selection means that we choose the subjects of our investigation by a non-systematic method

For example:

By using the alphabetic order, phone numbers etc.

Convenience sample is non-random research sample that used because it easily available

Stratified sampling is the selection participants based on categories that represent important distinguishing characteristics of a population

For example: males - females, managers - non managers

40% of total workers populations are females, 60% males, as 25% are managers, 75% non managers. We choose the sample that represented these percentages

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Research designs

Experiment

is design in which there are one or more independent variables and one or more dependent variables, as well as random assignment of subjects

Field experiment is conducted within an organization rather than laboratory

In a quasi-experiment design, one or more of features of a true experiment been compromised

The major advantage of experiment is the ability to draw causal conditions

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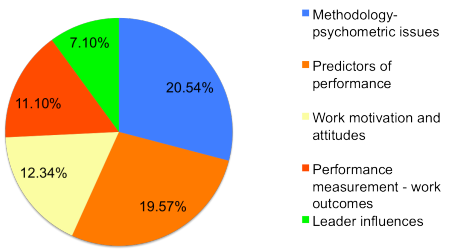
Research in WOP (1963 - 2007)

(Cascio, Aguinis 2008)



Percentage of the articles published on this topic over the entire 45-year period

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Research in WOP

- Job analysis
- Research methodology–psychometric issues
- Predictors of performance
- Performance measurement–work outcomes
- Training and development
- Industrial relations
- Reward systems
- Work motivation and attitudes
- Leader influences
- Work groups–teams
- Career issues
- Consumer behavior
- Societal issues
- Decision making
- Human factors–applied experimental psychology

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Research designs

Correlational method

a research design that examines the relationship among or between variables as they naturally occur

In contrast of experiment, there is no manipulation of variables by the experimenter. A researcher simply measures two or more variables and then examines their statistical relationship to one another

Correlations does not show causal relationship, but relationship between two or more variables

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For example: Correlations among study variables *(M. Teichmann, P. Dondon, Sources of stress in Bordeaux University academics.* In: N. Mastorakis, V. Maladenov, Z. Bojkovic et al. (Eds). Resent Research in Educational Technologies, WSEAS Press, 2011, pp. 98-105)

	1	2	3	4	5	6	7	8
1. University life and relationships	1							
2. Students & teaching	0.45	1						
3. Workload	0.49	0.41	1					
4. Personal life & professional identity	0.63	0.53	0.52	1				
5. Evaluation of knowledge in society	0.57	0.53	0.46	0.54	1			
6. Bureaucracy	0.64	0.51	0.67	0.60	0.58	1		
7. Professional development	0.59	0.33	0.41	0.53	0.47	0.49	1	
8. Infrastructure	0.57	0.53	0.41	0.51	0.47	0.57	0.36	1

	1	2	3	4	5	6	7	8
Age	-0.12	-	-0.20	-0.15	-	-	-0-23	-0.12
Gender	0.10*	-	-	-	-	-	-	-
Occupational life (years)	-0.13	-	-0,14	-0.15	0.13*	-	-0.20	-0.14

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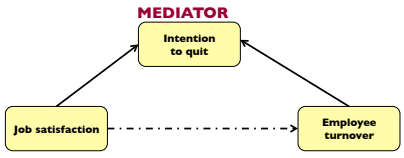
Research designs

Complex correlational design

Multiple regression analysis examines the relationship between a particular outcome variable and multiple predictors

For example: A mediator model for the job satisfaction-employee turnover relationship



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Data analysis: Moderated regression

Moderated regression, which is analogous to interaction in analysis of variance, tests for the joint effects of two or more predictors

Specifically, it tests if the relation of one predictor to a criterion varies across levels of the other predictor

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Data analysis: Mediator tests

A mediator is an intervening variable in a causal chain that is the effect of one variable and the cause of another. It plays an explanatory role in theories of why two variables are related, and represents a common type of hypothesis to test

Mediator analyses can be conducted with either partial correlation or multiple regression using procedures described by Kenny *(1979)*. As with other analyses of causal processes, these procedures provide evidence that either refutes or supports mediation

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Research designs

Meta-analysis

is a technique that allows results from several different research studies to be combined and summarized

Meta-analysis are usually conducted when there are 20 or more separate studies of a given hypothesis or topic

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Data analysis: Factor Analysis

A common problem in W&O research is reducing a large number of variables to a smaller number of more interpretable dimensions. This can be done in a purely exploratory way to investigate the structure of some variables. It can also be done in a confirmatory way to see if variables conform to a hypothesized structure. Factor analysis is most frequently applied to this problem

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Research designs

Meta-analysis

Effect size is an estimate of the magnitude of a relationship or effect found in a research investigation

Reporting effect sizes is considered good practice when presenting empirical research findings

An effect size facilitates the interpretation of the significance of a research results. It allows us to move beyond the simplistic, "Does it work or not?" to the far more sophisticated, "How well does it work in a range of contexts?"

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Research designs

Moreover, by placing the emphasis on the most important aspect of an intervention – the size of the effect – rather than its statistical significance, it promotes a more scientific approach to the accumulation of knowledge. An effect size is an important tool in reporting and interpreting effectiveness

The coefficient, also commonly known as R-square (R^2), is used as a guideline to measure the accuracy of the model i.e. how well or tightly the data fit the estimated model

The strength of the relationships between competency domains was estimated using the coefficient of determination or effect size (R^2). In the case of paired data, this is a measure of the proportion of variance shared by the two variables, and varies from 0 to 1; $R^2 < 0.09$ as referring to small effect, $R^2 = 0.1 - 0.25$ as referring to medium effect, and $R^2 > 0.25$ refers to big effect

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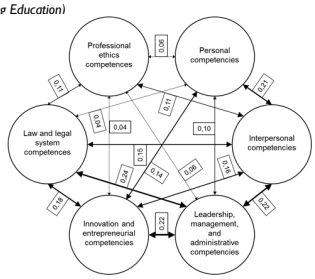
Research designs

For example: Model of Non-technical Competences for Engineers (by using R^2) *Source: Parts, V., Teichmann, M. (2013). The Engineers' Non-technical Competences, Journal WSEAS Transactions on Advances in Engineering Education)*



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Research designs

Survey design

uses a series of questions chosen to study one or more variables of interest

Surveys are common self-report measures in which participants are asked to report on their attitudes, beliefs, opinions, behaviours

These questions are asked of a sample of respondents at a single point of time, or they can be asked repeatedly at two or more points on time or for a certain period of time

Survey formats:

- ✓ Paper-and-pencil questionnaire
- ✓ Web-based questionnaire
- ✓ Through interview method (by phone or face-to-face)

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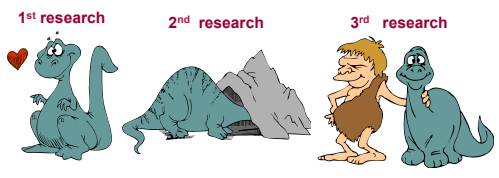
Research designs

Survey design

Most surveys use a cross-sectional design, meaning that all data were collected at a single point of time

A longitudinal design is one in which data are collected at more than one point of time from same respondents



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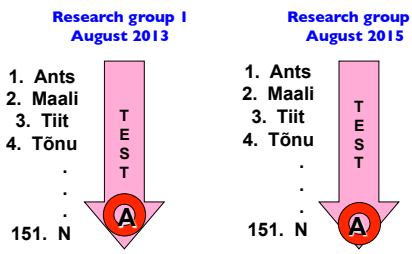
Longitudinal design



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Research designs

Survey design

- ✓ Questionnaires
- ✓ Psychometric tests
- Test selection depends on the purpose of the study
- Test carried out according to its manual
- Processing of test results, data (statistical) analysis
- Interpretation of test results (data)

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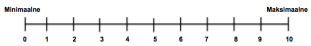
Research designs

Survey design

- ✓ Checklist



or

☐ Is it so?

- ✓ Self-monitoring (self-report techniques) are the measurement methods relying on research participants' reports of their own behaviour or attitudes
- ✓ Cognitive
- ✓ Psychosocial and physiological measurement

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Research designs

Survey design

Response rate is percentage of those surveyed who agree to participate. If the response rate is low because only a small percentage of people are willing to provide data, the generalizability of results could be questioned. The response of these few people might not be same as those of the people who did not participate

A high response rate is the key to legitimizing a survey's results

For example: if 1,000 surveys were sent by mail, and 257 were successfully completed and returned, then the response rate would be 25.7%

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Research designs

Survey design

Typical response rates:

Employees: 60-90%

Customers and members: 5-40%

General public: 1-20%

In academic studies published in the *Academy of Management Journal, Human Relations, Journal of Applied Psychology, Organizational Behavior and Human Decision Processes, and Journal of International Business Studies* (years 1975, 1985, and 1995) the average response rate was 55.6 with a standard deviation of 19.7; in the years 2000 and 2005 the average response rate was 52.7 percent with a standard deviation of 20.4 *(Baruch, 2000, Baruch, Holtom, 2006)*

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Research designs

Observational designs

The researcher observes employees in their organizational settings

Observation can be done either with employees' knowledge or without it

Disadvantage is that researcher can affect the phenomenon being studied

The qualitative approach involves observing behaviour in an organization and then recording those findings in a narrative form. Conclusions and generalizations can be drawn from repeated observations of same phenomenon without quantifying the results

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Research designs

Observational designs

Observations and Measurements (O&M) is an International Standard which defines a conceptual schema encoding for observations, and for features involved in sampling when making observations

Observational techniques:

- ✓ Natural environment and analogue environment observation
- ✓ Participant and group observation

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Research designs

Observational designs

- ✓ casual observation - observation happening by accident or chance
- ✓ systematic observation – systematic observation is a method of quantitative data collection that involves one or more observers, observing events, or behaviors, as they occur, and reliably recording their observations in terms of previously structured codes or numerical categories

i.e. understandable purpose,
planned, fixed time limits,
has a clear recording system

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Research designs

Action research designs

- ✓ Archival sources analysis by using previously collected data or records to answer a research question
- ✓ Content analysis - or textual analysis is a method for studying the content of communication
- ✓ Action analysis – job/work/task analysis
- ✓ Outcome/product/performance analysis
- ✓ Audio- and videotaping analysis
- ✓ Simulation is the imitation of the operation of a real-world process or system over time

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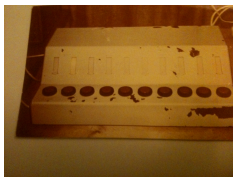
Research designs

Instrument-assisted and computer-assisted techniques

- ✓ Web-based survey
- ✓ Instruments

For example: reaction time



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Research designs

Qualitative design

is a method of inquiry employed in many different academic disciplines, traditionally in the social sciences, but also in market research and further contexts

Qualitative researchers aim to gather an in-depth understanding of human behaviour and the reasons that govern such behaviour. The qualitative method investigates the why and how of decision making, not just what, where, when

Qualitative methods produce information only on the particular cases studied, and any more general conclusions are only propositions (informed assertions)

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Research designs

Qualitative design

- ✓ Focus group is a form of qualitative research in which a group of people are asked about their perceptions, opinions, beliefs, and attitudes towards a product, service, concept, advertisement, idea, or packaging *(Henderson, 2009)*

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Research designs

Qualitative design

- ✓ Interview is a conversation between two or more people where questions are asked by the interviewer to elicit facts or statements from the interviewee

Structured interview is a quantitative research method commonly employed in survey research. The aim of this approach is to ensure that each interview is presented with exactly the same questions in the same order. This ensures that answers can be reliably aggregated and that comparisons can be made with confidence between sample subgroups or between different survey periods

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Research designs

Qualitative design

Semi-structured interview

While a structured interview has a formalized, limited set questions, a semi-structured interview is flexible, allowing new questions to be brought up during the interview as a result of what the interviewee says. The interviewer in a semi-structured interview generally has a framework of themes to be explored.

However, the specific topic or topics that the interviewer wants to explore during the interview should usually be thought about well in advance (especially during interviews for research projects)

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Research designs

Qualitative design

Unstructured interview is a method of interviews where questions can be changed or adapted to meet the respondent's intelligence, understanding or belief

Unlike a structured interview they do not offer a limited, pre-set range of answers for a respondent to choose, but instead advocate listening to how each individual person responds to the question

The method to gather information using this technique is fairly limited, for example most surveys that are carried out via telephone or even in person tend to follow a structured method

Use is very limited

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Research designs

Qualitative design

✓ Case studies (also known as a case reports) are intensive analysis of an individual unit (e.g., a person, group, or event) stressing developmental factors in relation to context

For example: Doctor House

Case studies may be prospective (in which criteria are established and cases fitting the criteria are included as they become available) or retrospective (in which criteria are established for selecting cases from historical records for inclusion in the study)

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Research designs

Qualitative design

✓ Other forms of qualitative methods

- Content analysis of interviews
- Responses to open-ended questions
- Written materials

In this sort of qualitative study, trained judges are asked to sort materials into categories that are given descriptive names. The frequency of each category is then calculated

For example:

European Commission, Project (2011): Best practices proposals to empower employee representatives in the New European Industrial Relations (NEIRE)

Pilot study (2010): Sources of occupational stress in technical university academics

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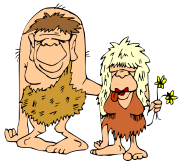
Dimensions of individual differences

✓ Ethnicity
✓ Age
✓ Gender
✓ Education
✓ Sexual orientation
✓ Economic status etc. as they relate to WOP assessment



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Methods of measurement of treatment process and outcome

Measuring work outcomes

How affect work behaviour such variables as

Independent variables	Dependent variable
✓personality ✓attitudes ✓emotions ✓education ✓compensation ✓leadership styles ✓work schedules etc.	✓ productivity ✓ work quality ✓ employee turnover ✓ employee absenteeism and presenteeism ✓ satisfaction ✓ burnout ✓ occupational stress ✓ engagement ✓ commitment etc.

These key dependent variables represent work outcomes and most commonly, changes in these variables result in financial losses or gains for business

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Predictive Validity for Overall Job Performance

Source: Schmidt, Hunter (1998). The Validity and Utility of Selection Methods in Personnel Psychology: Practical and Theoretical Implications of 85 Years of Research Findings, Psychological Bulletin, *Vol. 124, No. 2, pp. 262-274*

Personnel measures	Validity
GMA tests	.51
Work sample tests	.54
Integrity tests	.41
Conscientiousness tests	.31
Employment interviews (structured)	.51
Employment interviews (unstructured	.38
Job knowledge tests	.48
Job tryout procedure	.44
Peer ratings	.49
Reference checks	.26
Job experience (years)	.18
Biographical data measures	.35
Interests	.10
Graphology	.02
Age	-.01

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Methods of measurement of treatment process and outcome

Measuring work outcomes

The accurate measurement of productivity or quality are often very difficult

Although these key variables are most commonly considered dependent variables, this does not preclude the possibility that any one of them could be used as an independent variable

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Job/work/task analysis

Job is a regular activity performed in exchange for payment. A person usually begins a job by becoming an employee, volunteering, or starting a business

The duration of a job may range from an hour (in the case of odd jobs) to a lifetime (in the case of some judges)

If a person is trained for a certain type of job, they may have a profession

The series of jobs a person holds in their life is their career

Work in sense of employment is a contract between two parties, one being the employer and the other being the employee

Work as an activity in which one exerts strength or faculties to do or perform something

Task is a piece of work assigned or done as part of one's duties

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Job/work/task analysis

Job/work/task analysis is a method for describing job/work/task and/or the human attributes necessary to perform them

Three elements that comprise a formal job analysis *(Brannick, Levine, Morgeson, 2007):*

1. The procedure must be systematic i.e. the analyst specifies a procedure in advance and follows it
2. A job is broken into smaller units i.e. components
3. The analysis results in some written product (paper or electronic)

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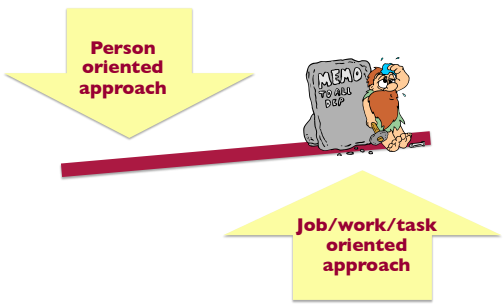
Job/work/task analysis



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Job/work/task analysis

The job/work/task oriented approach provides information about the nature of tasks done on the job. Some methods describe tasks themselves

For example: uses pencil and paper

Task can be divided into a hierarchy in which higher-level descriptions are broken down into smaller and smaller pieces of job

A hierarchy *(Brannick, Levine, Morgeson, 2007):*

- ✓ Position is a collection of duties
- ✓ Duty is accomplished by performing one or more associated tasks
- ✓ Task is a complete piece of work that accomplishes some particular objective
- ✓ Activities are the individual parts that make up the task
- ✓ Element (action) is very specific action

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Job/work/task analysis

The job/work/task oriented approach

Task can be divided into a hierarchy in which higher-level descriptions are broken down into smaller and smaller pieces of job

For this purposes is usable an activity theory (see Prof. Anna Leonova lectures)

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Job/work/task analysis

The person oriented approach provides a description of the characteristics or KSAOs necessary for a person to successfully perform a particular job

Knowledge is what a person needs to know to do a particular job

Skills is what a person is able to do on the job

Ability is a person's aptitude or capacity to do job tasks or learn to do job tasks

Other personal characteristics include anything relevant to do the job that is not covered by the other three characteristics i.e. other personal factors such as personality, willingness, interest, and motivation and such tangible factors as licenses, degrees, and years of experience

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Job/work/task analysis

The person oriented approach - KSAO *(Levine, 1983)*

Knowledge is the existence in memory of a retrievable set of technical facts, concepts, language, and procedures directly relevant to job performance

Skills is the developed or trained capacity to perform tasks that call for the use of tools, equipment, or machinery

Abilities involve the relatively enduring capacity to acquire skills or knowledge, and to carry out tasks at an acceptable level of proficiency where tools, equipment, and machinery are not major elements

Other personal characteristics include job-relevant interests, preferences, temperament, and personality characteristics that indicate how well an employee is likely to perform on a routine, day-to-day basis or how an employee is likely to adjust to a job's working conditions

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The person oriented approach – Competence

The term "competence" first appeared in an article authored by Lundberg (1972) and became attractive after McClelland article (1973)

The competence concept was originally developed in psychology referring to the individual's ability to respond to certain demands placed on them by their environment *(Sampson, 2009)*

Despite the popularity of competence issue in scientific literature, especially in the field of HRM and education, understanding of the term varies

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The person oriented approach – Competence

The term **competence** was known in Europe as a "learned capacity to perform" *(Roe, 2002)*

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

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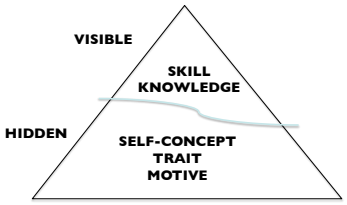
The person oriented approach – Competency

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



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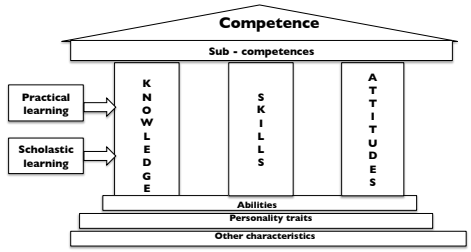
The person oriented approach – Competence

Architectural Model of Competences
(modified by D. Bartram and R.A. Roe, 2005)



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The person oriented approach – Competences

Skill is the capacity for carrying out complex, well-organized patterns of behavior smoothly and adaptively so as to achieve some end or goal

Although this term was originally used largely with respect to motor activity, it is now commonly used when talking about verbal and social skills

A skill does not develop on its own from nothing – skill is based on knowledge, and skills develop through the practical use and application of prior knowledge

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The person oriented approach – Competences

Professional attitudes are understood as a person's readiness or willingness to act in accordance with his personal values

A person's abilities are his capacity to acquire necessary knowledge and skills

Personality traits are, for example, neuroticism, agreeableness, rigidity, impulsiveness, etc.

Other characteristics are, for example, appropriate education, successful school history, average grade in math and physics, apparent interest in IT, etc.

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The person oriented approach – Competence Modeling

The competency modeling appears to have been given a boost by influential work of Prahalad and Hamel *(1990)*, who described core competencies of business

Shippmann et al. *(2000)* found that between 75 and 80 percent of surveyed companies are using some form of competency-related application

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The person oriented approach – Competence Modeling

The general idea was taken up by the consulting community and then taken down to the individual level (where job analysis typically is practiced)

Competency modeling concerns identifying organizationally valued personal characteristics required of individual employees by job and roles. The key idea in competency modeling is to somehow link the specific business strategy to the competencies needed in people to pursue the strategy *(Brannick et al., 2007)*

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The person oriented approach – Competence Modeling

There have been a debate about whether competence modeling is superior to job analysis or whether competence modeling is simply another name for job analysis *(Pearlman, 1997)*

However, job analysis is focused on task performance for a job as the outcome of interest, as competency modeling is a broader and has the link to business goals and strategies

As a practice, competence modeling is a useful tool for the work/job analysis *(Mushinsky, 2003, Cascio et al., 2011, Aamodt, 2013)*, recruitment *(Cooper, et al., 2000, Cook, 2009)*, assessment *(Arnold et al., 2010)*, training *(Landy et al., 2010)* and career development programs *(Spector, 2012)*

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Purposes of job analysis

(Ash, Levine, 1980)

Use	Description
Career development	Define KSAOs necessary for achievement
Legal issues	Show job relevance of KSAOs
Performance appraisal	Set criteria to evaluate performance
Recruitment and selection of employees	Delineate applicant characteristics to be used as the basis for hiring
Training	Suggest areas of training
Setting salaries	Determine salary levels for jobs
Efficiency / safety	Design jobs for efficiency and safety
Job classification	Place similar jobs into groupings
Job description	Write brief descriptions of jobs
Job design	Design content of jobs
Planning	Forecast future need for employees with specific KSAOs

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Sources of job analysis

- ✓ Perform the job – to do some of the job tasks or whole job (in natural or simulated conditions)
- ✓ Observe employees working – to observe people doing the work (list of activities)
- ✓ Interview employees – interviewing SMEs (incl. supervisors, experts) who are familiar with particular job
- ✓ Administer questionnaire – is the most efficient means of collecting information
- ✓ Multiple approaches – combination of different above-mentioned methods

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Methods of job analysis

- ✓ Job Components Inventory (JCI) *(Banks et al., 1983; Banks, Miller, 1984)*
- ✓ Functional Job Analysis (FJA) *(Fine & Wiley, 1971)*
- ✓ Position Analysis Questionnaire (PAQ) *(McCormick et al. 1972)*
- ✓ Task inventory is a questionnaire that contains a list of specific tasks that might be done on a job that being analyzed (+ rating scales). A task inventory for even a fairly simple job contains hundreds of tasks. A task inventory often is a major component of an extensive job analysis project
- ✓ Combination Job Analysis Method (C-JAM) *(Brannick et al., 2007)*
- ✓ Job analysis methods for teams are similar to the other methods *(Brannick et al., 2007)*

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Job description

Job description is the most common application of job analysis

A job description is a brief summary or snapshot of the job

Job description should be short, Gael *(1988)* recommended not to limit with specific page numbers

There is no universally accepted content or format for the job description

Brannick et al. *(2007)* suggested

- ✓ Identifiers (job title + other classifying information)
- ✓ Summary (mission or objective statement)
- ✓ Duties and tasks (what, why, how)
- ✓ Other information (such as responsibility, including nature of supervision, knowledge, including education experience or other minimum qualifications; and content, such as hazardous working conditions or rotating shift work

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Thank You!

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