



COMPLEX AND MULTIVARIABLE:

METHODOLOGY OF EXPLORING DIGITAL LITERACY AND TRAINING NEEDS WITHIN THE POLISH SME SECTOR

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AGENDA

- The Catalogue of Digital Competencies of Small & Medium Enterprises
- Theoretical frameworks
- Methodology & research process
- Outcomes
- Conclusions



THE CATALOGUE

ECIL 2017, ST. MALO



THE FAMILY OF DIGITAL COMPETENCIES' CATALOGUES

POLSKA CYFROWA
RÓWNYCH SZANS



Taksonomia funkcjonalnych
kompetencji cyfrowych oraz
metodologia pomiaru poziomu
funkcjonalnych kompetencji
cyfrowych osób z pokolenia 50+

The Taxonomy and Measurement
Methodology of Digital Competencies
of People Aged 50+, 2015

The framework catalogue
of digital competences



The Framework Catalogue of
Digital Competencies, 2015

Katalog Kompetencji
Cyfrowych

The Catalogue of Digital
Competencies of SMEs, 2016



INTERNETOWE
REWOLUCJE

profesjonalny społeczeństwo na cyfrowo

AREAS OF SME'S ACTIVITIES

1. Sales
2. Communication and promotion
3. Customers
4. Product or services
5. Market and competition
6. Company management

THE CATALOGUE OF DIGITAL COMPETENCIES OF SMES



CONSTRUCTION



AREA

is the key range of business operations which can be enhanced by digital solutions.

BENEFITS

to be gained with digital technologies

DIGITAL COMPETENCES

present knowledge and skills needed to benefit in key business areas.



THEORETICAL FRAMEWORKS

THEORETICAL BACKGROUND

SOCIAL STUDIES

- **Pierre Bourdieu**
- theory of class distinction
- people's competencies depending on their social status
- **Jan van Dijk**
- motivation as the main question concerning access and usage of digital media and content
- **Filiciak, Mazurek & Growiec**
- the concept of media relativity and **benefits**

INFORMATION SCIENCE

- **ALA's definition of information literacy**
- a set of abilities enabling individuals to recognize a need of information and to locate, evaluate, and use it effectively
- **Digital literacy**
- a set of skills required for ICT usage in different contexts

THEORETICAL BACKGROUND: "A BENEFIT" AS A „KEY CONCEPT”

ORGANISATION & MANAGEMENT

- **technology-in-practice**
- mutual influence of technology and social context
- technologies as instruments supporting attainment of skills necessary to realize tasks and to "extract **the benefits** from use" (Morgan-Thomas)
- **the concept of technological affordance**: information processes indispensable in economic activities (Orlikowski & Scott)
- the technology diffusion theory
- the complementarity theory

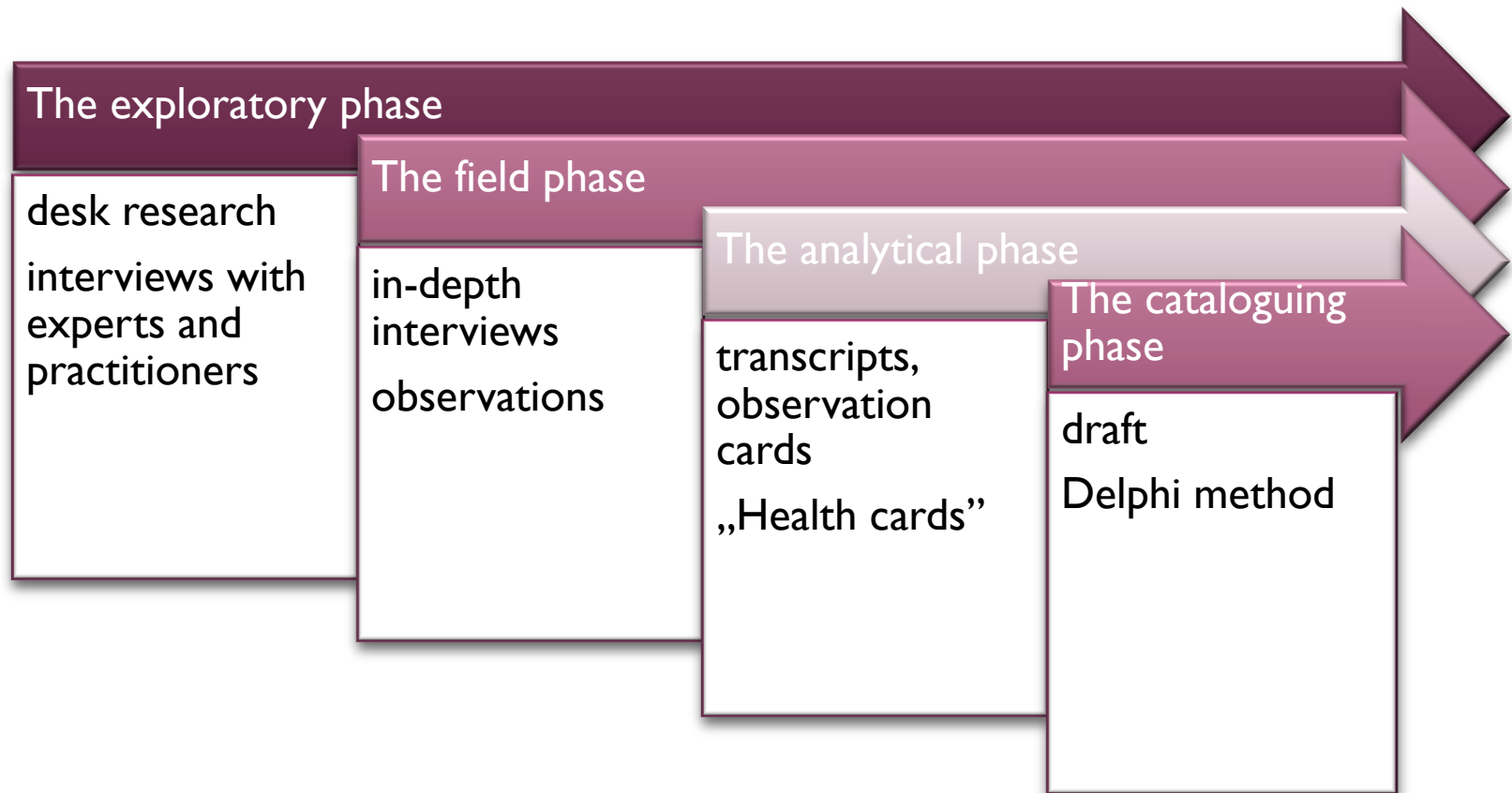
PSYCHOLOGY & HCI

- **the concept of affordances for practice**:
- relations between people and technology in organisational contexts (Fayard & Weeks), joining a technological aspect with Bourdieu's sociological idea of habitus.
- "Affordance offers a useful way of thinking about how practice is patterned by the social and physical construction of technology, and the material environment and habitus offers a useful way of thinking about **how practice is patterned by social and symbolic structures**" [14, p. 247].



METHODOLOGY

METHODOLOGY & THE RESEARCH PROCESS



METHODOLOGY

THE EXPLORATORY PHASE

- desk research:
 - theoretical knowledge of the Polish SMEs; classification criteria
- interviews with experts and practitioners:
 - practical knowledge and meta-reflection

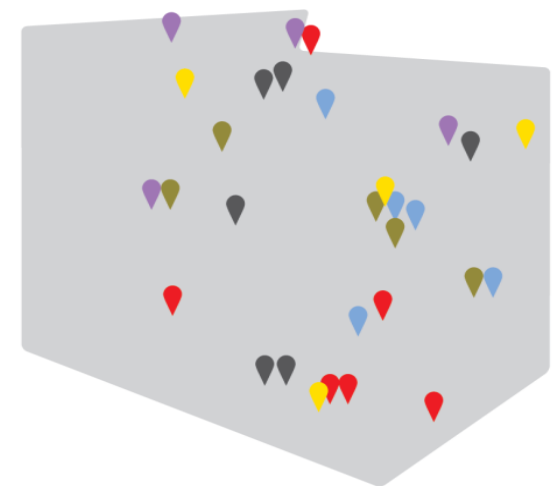
THE FIELD PHASE

- 30 in-depth interviews (including dyads and triads)
- observations

METHODOLOGY

SME'S SELECTION CRITERIA

1. size – less than 100 employees, more than five clients
2. independence – financially and know-how independent, settled in Poland
3. ICT use – any type of presence on the internet, use of any ICT solutions in daily work, except fiscal cash register
4. experience – start-ups, less and more experienced
5. location – cities, towns, villages, region of Poland
6. diversity of respondents – age, sex, position in the SME
7. area of activity – local, international



METHODOLOGY

The analytical phase

- Transcripts of interviews and observation cards
- „Health cards”: detailed analysis of qualitative data

The cataloguing phase

- a draft Catalogue by a multidisciplinary team
- definition of benefits related to key areas of SMEs activities
- the Delphi method – verification of the final version of the Catalogue



OUTCOMES & CONCLUSIONS

OUTCOMES

- definition of key areas of online SMEs activities : Sales, Communication and Promotion, Products or Services, Customers, Market and Competition, and Company Management
- and benefits to be achieved
- The Catalogue of Digital Competencies of SMEs
 - „Internet Revolutions” Google project (European Digital Garage) to support development and/or enhancement of digital tools usage in the Polish SMEs
- in-depth & multidimensional evaluation of information competencies and/or needs in the SMEs sector
- verification of methodology & diagnostic tools

CONCLUSIONS

- confirmed crucial role of methodology and a component of relationality in diagnosing information and digital needs and competencies, in workplace as well
- the Catalogue as a roadmap for ICT implementation in Polish SMEs
 - for diagnosing digital competencies in human resources' management
 - for in-depth analysis of potential users' needs and patterns of information behaviors
 - for designing and realisation of education and training services
- required regular revisions and updates
- limitations: qualitative and exploratory character of the project