THEORETICAL FRAMEWORK

- The PIAAC study (OECD, 2013) provides, among others, international statistical data on literacy skills of adults (more precisely: people aged 16-65 years residing in the country), for which five proficiency levels are described. Like in all countries, in Germany there is a substantial number of adults (17.5 %) with low literacy proficiency (level 1 or below; cf. OECD, 2013, p. 257).
- Adults with a lower literacy can be defined as a subgroup of adults that “can read or write single sentences, but not continuous text – even if it is brief” (Grotlüschen & Riekmann, 2011).
- In Germany there are about 6.2 millions of adults assigned to Alpha-Levels 1-3 (vgl. Grotlüschen et al. 2018, 5), 62.3% of low literate adults are employed (vgl. Grotlüschen et al. 2018, 12).
- The increasing mediation (Coudry & Hepp, 2016) brings with it an increasing use of digital technologies. In 2018, 89.4% of the total population and 78% of the less literalised had an Internet-enabled mobile phone or smartphone (vgl. Grotlüschen et al. 2018, 32).

At the same time, the demands on media-related skills are also growing (vgl. Wolf/Koppel 2017). Both everyday practices (e.g. making appointments with authorities, banking transactions or looking for jobs) and work-related practices (e.g. controlling machines or using digital assistants) are increasingly being offered exclusively in digital form.

- The share of self-directed learning with digital media remains rather low according to IW trends (2019). For employees with low literacy, digital media are hardly used specifically for learning at the workplace (Schöpper-Grabe/Vahlhaus, 2019, p.52f.). This may be due to a lack of suitable offers.

Adults with low literacy proficiency are characterized by a lack of suitable offers. A lack of suitable offers...

- Unskilled and semi-skilled activities
- Help from a third person
- Help through differentiation (i.e. tasks are adapted individually)
- With the most common errors

RESEARCH DESIGN

- explorative approach with Mixed Methods Design (cf. Döring et al., 2016)
- two steps of Research (cf. charts below)
  - first step: Meta-Interpretation (cf. Weed, 2005)
    - two criteria selection and applying in the analysis for the selection of occupational areas (for a mobile learning app in adult literacy education):
      a) Characterization of the target group / boundaries
      b) Occupational boundaries and opportunities of the target group
  - second step: Qualitative content analysis (cf. Mayring, 2017)

FORECAST/PREVIEW

Problems resulting from low literacy: “some of them make it easy for themselves then but also from the time red light flashes I would have to do something else to acknowledge the error and continue editing (…) but do not know what error occurred” (060619_B_GD)

Results of the research will be used for the development of further learning material for the mobile learning app in adult literacy education with the focus on basic literacy education on workplace.

SELECTION OF RELEVANT OCCUPATIONAL AREAS FOR A MOBILE LEARNING APP IN ADULT LITERACY EDUCATION

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FIRST STEPS

Research objectives:
Which studies make statements about low literacy persons and the labour market?
Which occupational areas are relevant for a digital learning app to improve workplace literacy?
Selection of occupational fields.
The occupational fields were selected as part of a Meta-Interpretation with a systematic review.

Research methods:
- Data Collection: Expert Interviews with Training masters, Vocational school teachers and Course instructors
- Data analysis: Systematic Review (cf. ibid)

Analyzed documents:
- Forecasts of labour market developments in Germany up to 2030
- Analyzed quantitative studies: Ehmig et al., 2015;
  - loe. - Level One, 2010;
  - LEO, 2018;
  - Stuckatz/Badel, 2016

The purpose of the studies is the common area, here: people with low literacy in occupational areas

Applied criteria:
- 2-year vocational training with a disproportionate number of illiterates in the occupational field
- 3-year vocational training with a disproportionately high number of illiterates in the occupational field
- at least 15% illiterates in the occupational field
- Bottleneck jobs
- Proportional proportions of illiterates by occupational groups
- Employment growth until 2030
- Demand Labour force up to 2030
- Activities that involve reading and writing and can lead to hazards.

Outcome:
Applying the criteria described to occupations in the low-threshold sector of employment, three sectors emerged that were considered most relevant for the project’s purposes:
1. food sectors,
2. technical professions (manufacturing), and
3. public health and caring sector.

REFERENCES


O_2018_Living_with_Low_Literacy.pdf

SECOND STEPS

Research objective:
Validation of the selected occupational areas and identification of relevant task content

Research methods:
- Data Collection: Expert Interviews with Training masters, Vocational school teachers and Course instructors
- Data analysis: Qualitative Content Analysis (cf. Mayring, 2017)

Applied dimensions for the task development:
- reading
- writing
- arithmetic
- speech perception

Outcome:
The tasks in the four dimensions should include the following contents from the (daily) work routine:
- reading
- independent working
- the most common errors
- problems resulting from low literacy
- written activities
- Situations where they need help
- Help through differentiation (i.e. tasks are adapted individually)
- Help from a third person
- Delegation to others.

For more information or to contact the authors, visit [LEA ONLINE](https://www.lea-online.de).