



LEO

Living with low literacy

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1 LEO 2018

Conducted in 2018, the second Level One Survey (LEO 2018) assesses the reading and writing skills of the German-speaking adult population (aged 18–64) and reports on these using a differentiated scale for the lower levels of reading and writing proficiency, referred to as Alpha Levels. This survey provides an update on the results of the 2010 LEO Level One Survey (Grotlüschen & Riekmann 2012).

The aim of this investigation is to quantify the extent of the phenomenon of low literacy skills among adults today.

Compared with the preceding survey, it focuses more on specific questions of participation, everyday practices and skills in various spheres of life:

- **Digital** practices and basic skills
- **Financial** practices and basic skills
- **Health** practices and basic skills
- **Political** practices and basic skills
- Text-related practices in the context of **work, family and everyday life**
- Literacy skills in the context of **continuing education**
- Literacy skills in the context of **immigration and multilingualism**

This brochure primarily reports on findings concerning text-related practices. Appropriate space will be given to the specific basic skills in the full report of results published at the end of the project.

2 Scope of the survey

LEO 2018 is based on a random sample of adults living in private households in Germany, aged between 18 and 64. The net sample size comprised 6,681 people. It was supplemented with an additional random sample of 511 people from the lower levels of education. People were only included in the survey if their command of German was sufficient to follow an approximately one-hour-long interview. The sample was weighted based on key socio-demographic data taken from the German Microcensus.

After answering a set of standardized questions about various aspects of their background, the interviewees then completed a skills test comprising

reading and writing exercises. All 7,192 subjects were given an initial assessment test. On average, respondents took nearly twelve minutes to complete the tasks. Participants who only achieved a small number of correct answers in the first set of test exercises were given additional, simpler tasks from a more detailed test batch. The average time taken to complete this second set of questions was seven minutes.

The interviews were carried out by the polling institution Kantar Public as computer-assisted personal interviews (CAPIs).

3 Literacies and low literacy

In the tradition of new literacy studies (Street 2003), literacy is seen as a social practice that varies from context to context, indeed from person to person. However, these various different literacies are not all awarded the same level of social value. In German, orthography reforms and the Duden dictionary record written language conventions, thus providing a specific definition of what “literacy” means. Government institutions, schools and universities are bound to the use of this literacy. As such, society has come to view these conventions as being the supposedly “correct” or legitimate form of literacy (see Street 2003, Grotlüschen 2011). A skills test was used in LEO 2010 and LEO 2018 to measure this socially-determined concept of literacy – hereinafter referred to as the dominant concept of literacy.

The term low literacy indicates that a person is, at best, able to read and write simple sentences. According to the classification system used in the LEO survey, the lower levels of reading and writing proficiency correspond to Alpha Levels 1–3 (see Grotlüschen & Riekmann 2012 for a more detailed description of the Alpha Levels).

- **Alpha Level 1** corresponds to literacy skills at letter level. In Germany, it is very rare for someone to only be able to read at the level of individual letters.
- **Alpha Level 2** corresponds to literacy skills at word level. People with skills at this Alpha Level are able to read or write individual words, but are unable to work at sentence level. Even common words are often read or written letter for letter.
- **Alpha Level 3** corresponds to literacy skills at sentence level. People with skills at this Alpha Level are able to read or write single sentences, but are unable to work with continuous texts, even if they are brief.

Low literacy – as defined by the LEO 2018 concept of literacy outlined above – comprises these three Alpha Levels. Individuals who fall into these three categories are restricted in terms of their autonomous participation in various aspects of daily life due to their limited reading and writing skills. For example, they might not be able to read simple written instructions at work.

- **Alpha Level 4** indicates a noticeably high frequency of errors in writing and spelling, even when using common and simple vocabulary.

The definition of literacy set out in publications for the National Decade¹ for Literacy and Basic Skills places particular emphasis on the relationship between written language and the minimum requirements of social participation. Low literacy is often operationalized using the term “functional illiteracy”:

“Functional illiteracy is when an adult’s reading and writing skills are lower than the minimum required and assumed necessary in order to fulfil the respective social requirements. [...] If a person is unable to read and correctly extract one or more pieces of information contained directly within a simple text and/or if their writing skills are of a comparable level.” (Egloff et al. 2011, translation by the authors)

¹The National Decade for Literacy and Basic Education (AlphaDekade) is an initiative of the German Federal Ministry for Education and Research, the Länder and other partners. They have set themselves the goal of reducing low literacy among adults and supporting basic education in Germany. The AlphaDekade covers the period from 2016 to 2026.

The term “functional illiteracy” is considered stigmatizing and not suitable for use within the context of adult education. Furthermore, experience gained since the publication of the LEO Level One Survey (2011) has shown that the term can be misleading as it requires a great deal of explanation and is not well-suited to international discussion (see Steuten 2014). In consideration of

this, LEO 2018 uses the terms “low literacy” and “adults with low literacy skills”, always in relation to the dominant concept of literacy in Germany. By gathering in-depth information about social (text-related) practices and skills, LEO 2018 allows a more detailed investigation of social participation and exclusion.

4 Literacy skills results and trends in Germany 2018

In 2018, 12.1% of German-speaking adults were found to have a low level of proficiency in reading and writing. Compared with the results of the LEO Level One Survey carried out in 2010, this represents a decrease of 2.4 percentage points.

This change is statistically significant ($p < 0.01$). This means that, extrapolated to the whole population, there are still approximately 6.2 million adults in Germany with low literacy skills (2010: 7.5 million).

Table 1: German-speaking adult population (aged 18-64) classified by Alpha Level (2018)

Literacy Level	Alpha Level	Percentage of adult population	Number (extrapolated)
Low literacy	Alpha 1	0.6%	0.3 million
	Alpha 2	3.4%	1.7 million
	Alpha 3	8.1%	4.2 million
	Alpha 1–3	12.1%	6.2 million
Frequent spelling errors	Alpha 4	20.5%	10.6 million
	Above Alpha 4	67.5%	34.8 million
Total		100%	51.5 million

Source: Universität Hamburg, LEO 2018 – living with low literacy.

Base: German-speaking adults (aged 18–64), $n=7,192$, weighted, any deviations from 100% or from total figures are due to rounding.

Reading example for Table 1: „The reading and writing skills of 12.1 percent of the adult population correspond to Alpha Levels 1–3. That is about 6.2 million adults.”

4.1 Comparison with the first LEO Level One Survey (2010)

2010 was the first time that detailed data was gathered about the lower levels of literacy proficiency. Recent figures show a positive

change – compared with 2010, the number of adults with low literacy skills has fallen from 7.5 million to 6.2 million.

Table 2: German-speaking adult population (aged 18–64) classified by Alpha Level, comparing 2010 and 2018

Alpha Level	2010 percentage	2018 percentage	Significance of change
Alpha 1	0.6%	0.6%	Not significant
Alpha 2	3.9%	3.4%	Not significant
Alpha 3	10.0%	8.1%	significant (p < 0.01)
Alpha 1–3	14.5%	12.1%	significant (p < 0.01)
Alpha 4	25.9%	20.5%	significant (p < 0.01)
Above Alpha 4	59.7%	67.5%	significant (p < 0.01)
Total	100%	100%	

Source: Universität Hamburg, LEO 2018 – living with low literacy; leo. – Level One Survey 2010.

Base: German-speaking adults (aged 18–64), n=7,192 (2018), n=8,436 (2010), weighted. Deviations from 100% are due to rounding.

Reading example for Table 2: „In 2018, 8.1 percent of adults had reading and writing skills equivalent to Alpha Levels 1–3, compared to 10.0 percent in 2010.”

4.2 What is the composition of the sub-population of adults with low literacy skills?

The following chapter explores the profile of the sub-population of 6.2 million adults with low literacy skills. The figures therefore do not refer to the whole sample of 7,192 adults, but instead to the sub-group of adults with low literacy skills

(n = 867 in the weighted data set). Results are presented according to gender, age group, first language, educational qualifications, employment status and marital status.

The **pie charts** in this chapter illustrate the composition of the group of adults with low literacy skills, e.g. what percentage of adults with low literacy levels are men and how many are women?

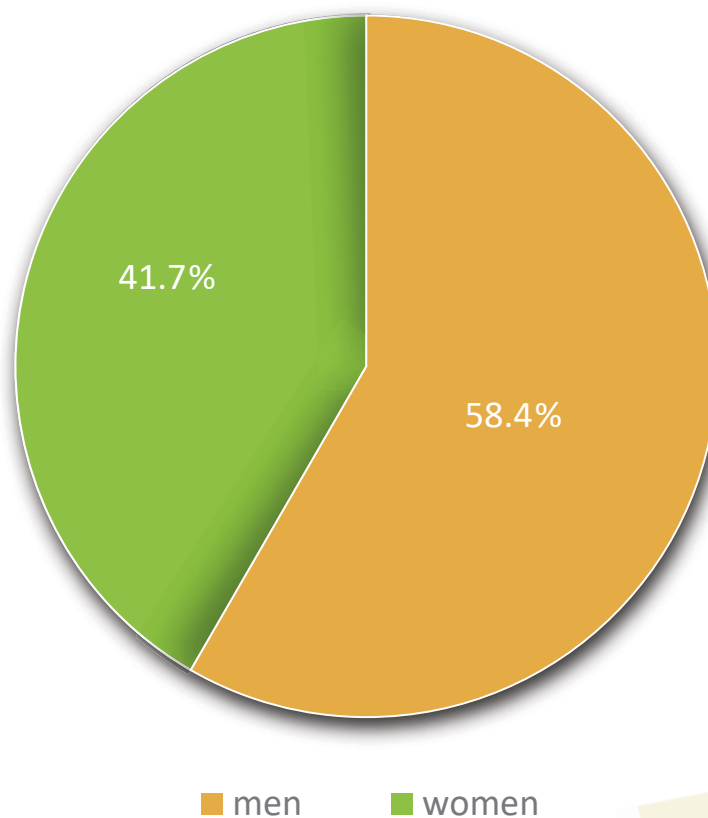
Gender

More men than women are classed as having low literacy skills (58.4%). In 2010, 60.3% of adults with low literacy were men and 39.7% were

women. The changes seen compared with 2010 are not statistically significant (Figure 1).

Figure 1: Gender of adults with low literacy skills (Alpha Levels 1–3) (2018)

6.2 million adults with low literacy: percentage of men and women



Reading example for Figure 1: „With 58.4 percent men represent the majority of the adults with low reading and writing skills.“

Source: Universität Hamburg, LEO 2018 – living with low literacy.

Base: German-speaking adults (aged 18–64) with low literacy skills, n=867, weighted.

Deviations from 100% are due to rounding.

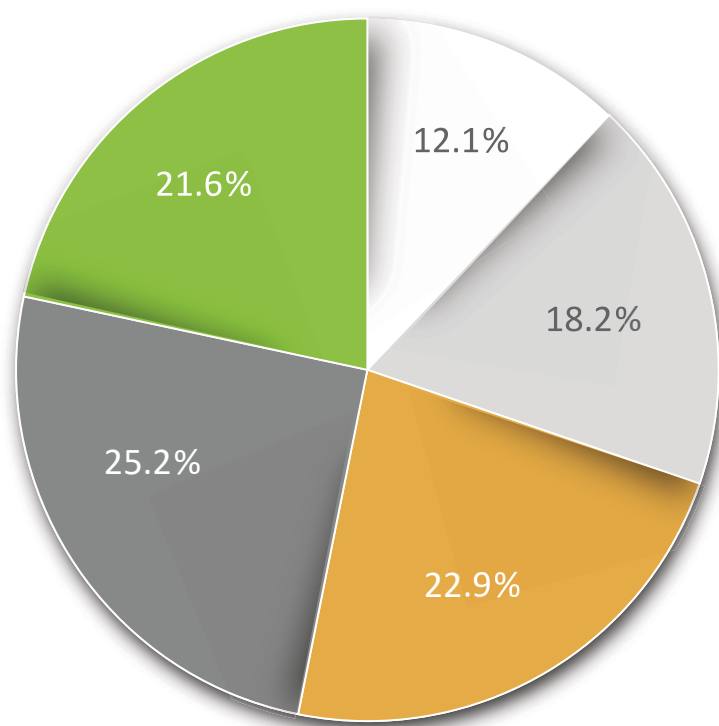
Age

Adults over the age of 45 account for the larger proportion of adults with low literacy skills (figure 2). The two oldest age groups (born 1953–1962 and 1963–1972) make up 46.9% of adults with low literacy skills. 22.9% of adults with low literacy skills belong to the middle age group (born 1973–1982); at the time of the survey, they were between 36 and 45 years old. The remaining

30.2% of adults with low literacy skills belong to the two younger age groups, born 1983–1992 and 1993–2000. At the time of the survey, these individuals were between 18 and 35 years old. These percentage shares have not changed significantly compared with 2010.

Figure 2: Adults with low literacy skills (Alpha Levels 1–3) by age (2018)

6.2 million adults with low literacy: proportions of different age cohorts



1993 - 2000 (aged 18 - 25)
 1983 - 1992 (aged 26 - 35)
 1973 - 1982 (aged 36 - 45)
 1963 - 1972 (aged 46 - 55)
 1953 - 1962 (aged 56 - 65)

In brackets: age at the time of data collection

Reading example for Figure 2: "25.2 percent of the adults with low reading and writing skills were born between 1963 and 1972. At the time of the survey, they were between 46 and 55 years old."

Source: Universität Hamburg, LEO 2018 – living with low literacy.

Base: German-speaking adults (aged 18–64) with low literacy skills, n=867, weighted.

First language

The term “first language” is used to refer to the language(s) that an individual acquires during childhood. That is, languages that are used on a routine basis within the family and the child’s home environment and which the child acquires through this language contact. This might be one language, but can also be two or more languages. This is not necessarily an indication of where an individual has come from in geographical terms, but of their family background instead.

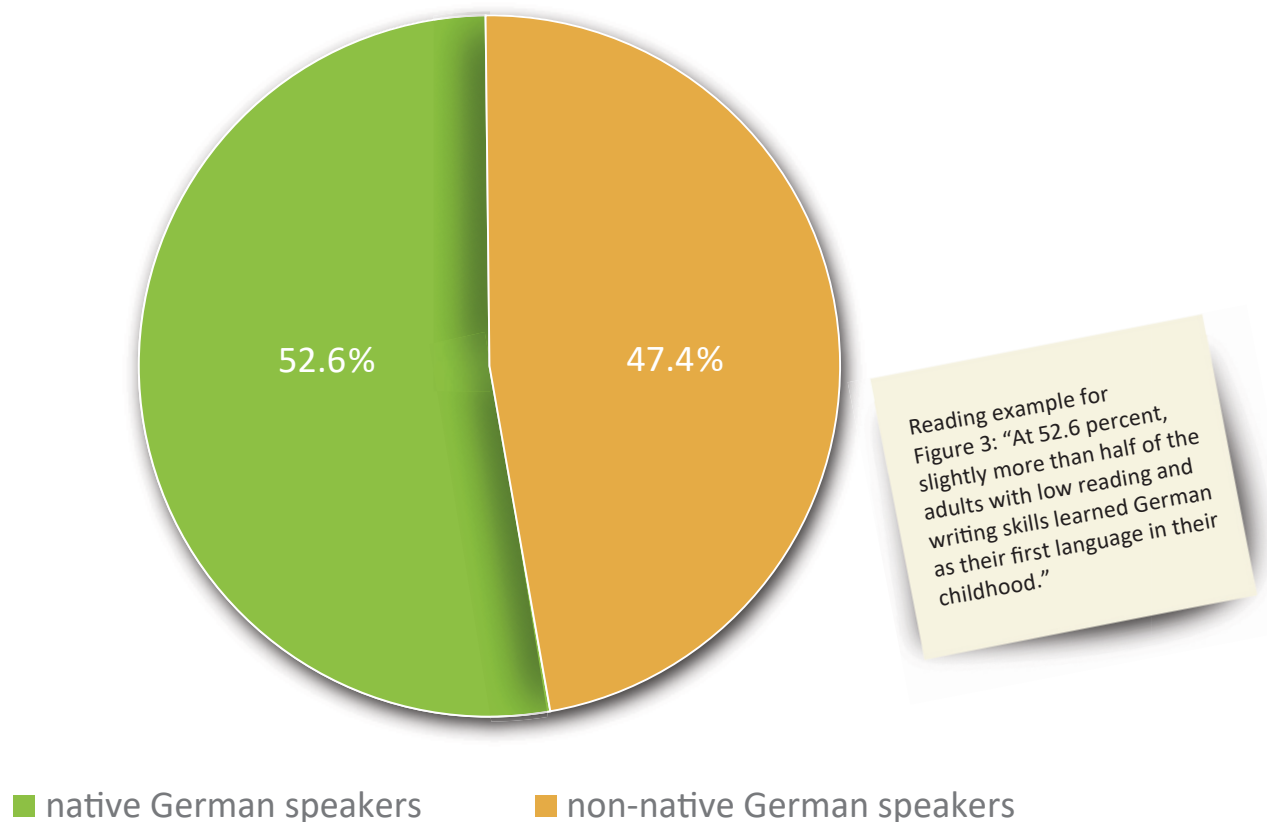
“In terms of the situation in Germany, this can be specified as follows: children from immigrant families grow up using the language of where their

family comes from, it is not uncommon for this to be more than one language. German is then introduced as the majority language, at the latest, when the child leaves their parent’s home to go to school or kindergarten.” (Gogolin & Krüger-Potratz 2010:12, translation by the authors)

Interviews were only carried out with people who had a sufficient level of spoken German to be able to follow an interview conducted in German. Non-native speakers without the requisite level of spoken German were not included in this survey.

Figure 3: Adults with low literacy skills (Alpha Levels 1–3), showing the percentage of people with German as (one of) their first language(s) and people with exclusively other first languages (2018)

6.2 million adults with low literacy: percentage of people with different first languages



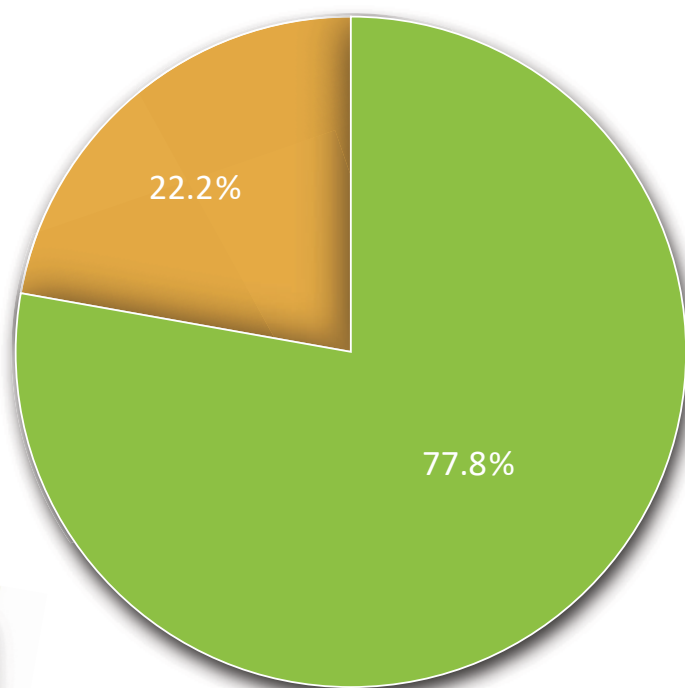
Source: Universität Hamburg, LEO 2018 – living with low literacy.
Base: German-speaking adults (aged 18–64) with low literacy skills, n=867, weighted.

Figure 3 shows that, of the 6.2 million adults with low literacy, 3.3 million (52.6%) grew up in German-speaking family environments. Approximately 2.9 million (47.4%) learnt a language other than German as their first language. This means that more than half of all adults with low literacy skills in Germany learnt German during childhood. In 2010, 58.1% of people in this group spoke German as their first language, while 41.9% spoke a different language as their first language. This change from 2010 is not statistically significant. Research results indicate that writing skills in one language can be a positive statistical predictor

for the ability to learn another written language (Dünkel, Heimler, Brandt & Gogolin). In LEO 2018, interviewees were asked to give an assessment of their (written) language skills for the languages that they were able to understand or speak. Of those adults with low literacy skills in German who learnt at least one non-German language as their first language, 77.8% stated that they were able to read and write complex texts in their first language (Figure 4). Out of those who exclusively learnt non-German first languages 82.3% report to be able to do so.

Figure 4: Self-assessment by adults with low literacy (Alpha Levels 1–3) and a first language other than German of their ability to read and write complex texts in this language.

6.2 million adults with low literacy and a first language other than German: percentage of people who ...



Reading example for Figure 4: "77.8 percent of the persons with low reading and writing skills who learned another language than German in their childhood report that they are able to read and write complex texts in this language."

- are able to read and write complex texts
- are not able to read and write complex texts

Source: Universität Hamburg, LEO 2018 – living with low literacy.

Base: Adults (aged 18–64) with low literacy skills in German, who did not learn German as their first or only first language, n=523, weighted.

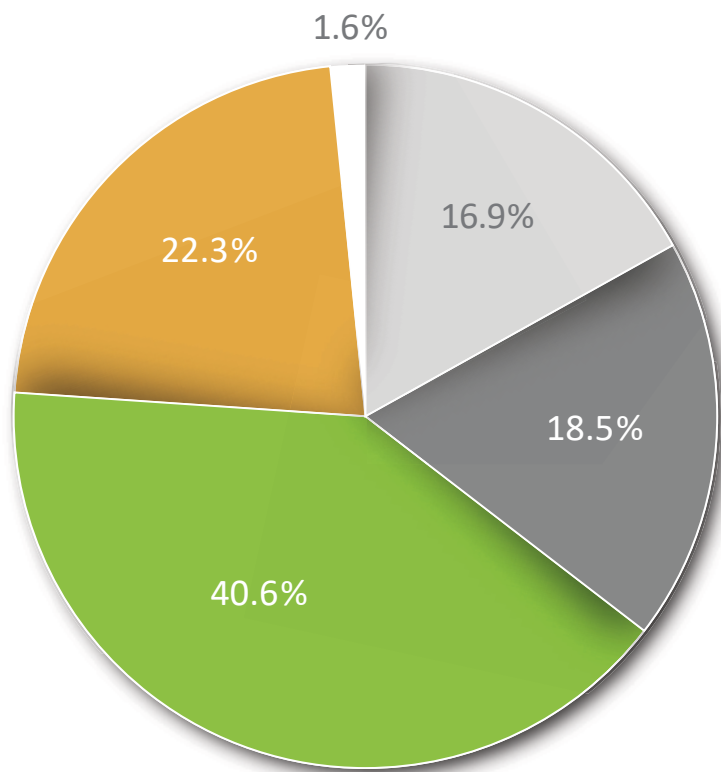
Educational qualifications

76.0 % of all adults with a low level of reading and writing proficiency (Alpha Levels 1–3) have achieved some form of school-leaving qualification (2010: 80.1 %). Most of these (40.6 %) have a school-leaving certificate from a Hauptschule, Volksschule (lower secondary school up to age 15) or comparable equivalent (2010: 47.7%). This

development is statistically significant. 22.3 % of adults with low literacy skills do not have any form of school-leaving qualification (2010: 19.3%). A further 1.6 % of adults with low literacy skills are still enrolled at school or did not provide any information about their school-leaving qualifications (2010: 1.8 %) (Figure 5).

Figure 5: School-leaving qualifications of adults with low literacy skills (Alpha Levels 1–3) (2018)

6.2 million adults with low literacy: percentages of people with different school-leaving certificates



- Upper secondary
 Intermediate secondary (age 16)
 Lower secondary (age 15)
- No school-leaving qualification
 Still at school, not specified

Reading example for Figure 5: "22.3 percent of the adults with low reading and writing skills left school without any certificates."

Source: Universität Hamburg, LEO 2018 – living with low literacy.
 Base: German-speaking adults (aged 18–64) with low literacy skills, n=867, weighted.
 Deviations from 100% are due to rounding.

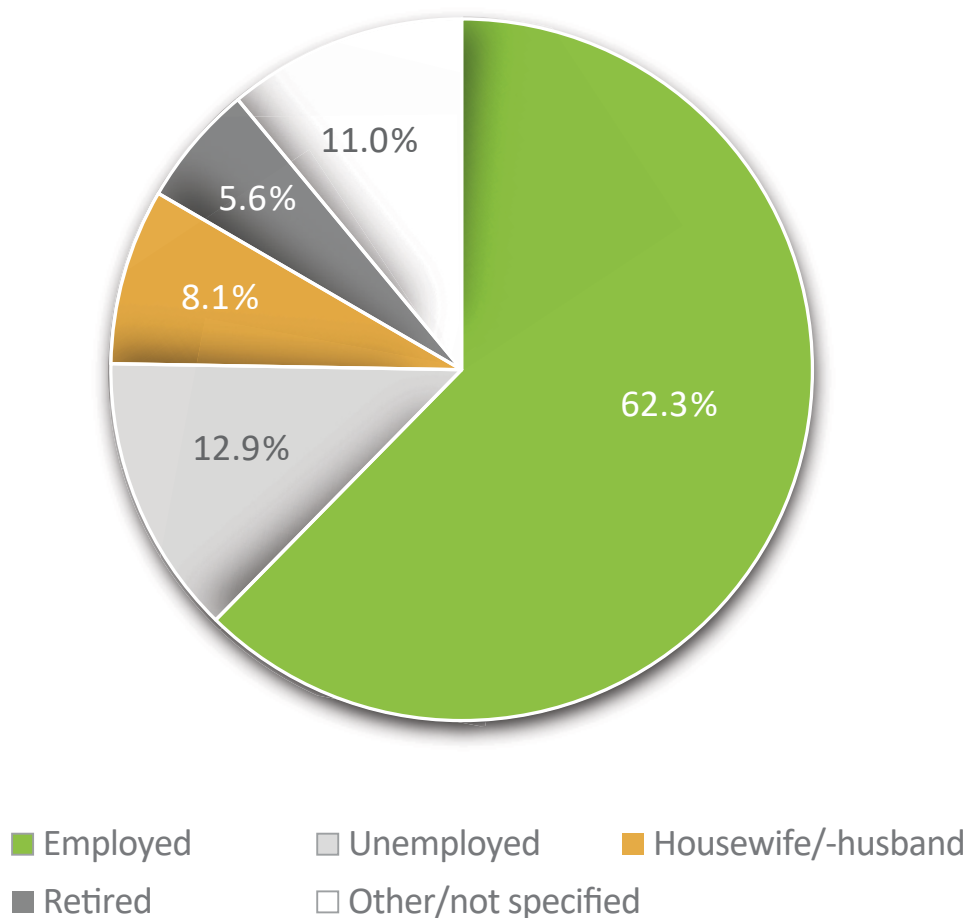
Employment status

62.3% of adults with low literacy skills are employed (2010: 56.9%). Within the total population of Germany, 75.5% of people are employed (2010: 66.4%). 12.9% of adults with low literacy skills are unemployed (2010: 16.7%). Currently, the unemployment rate for the overall population of Germany is 5% (2010: 7.6%). In addition to

this, 8.1% described themselves as housewives or househusbands (2010: 9%). At a national level, 3.4% of adults are in this category (2010: 6.3%). The changes of proportions among adults with low literacy skills compared with the figures from 2010 are not statistically significant (Figure 6).

Figure 6: Employment status of adults with low literacy skills (Alpha Levels 1–3) (2018)

6.2 million adults with low literacy: percentages of people in different employment situations



Source: Universität Hamburg, LEO 2018 – living with low literacy.
 Base: German-speaking adults (aged 18–64) with low literacy skills, n=867, weighted.
 Deviations from 100% are due to rounding.

Reading example for Figure 6: “62.3 percent of the adults with low reading and writing skills are not employed.”

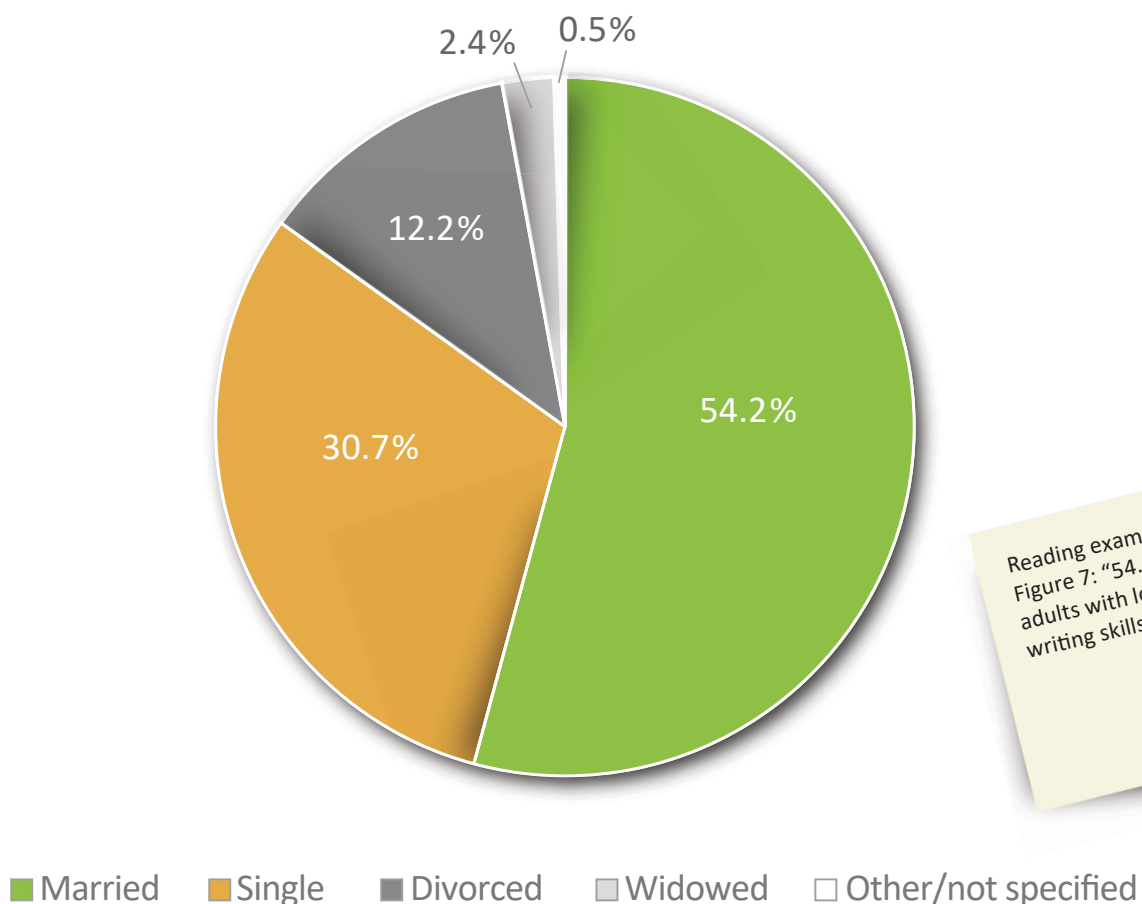
Marital status

At 54.2%, married people make up the largest sub-group of all adults with low literacy skills (2010: 61.8%) (Figure 7). A further 30.7% are single (2010: 27.2%) and 12.2% are divorced (2010: 8%). The changes in proportions compared with 2010 are not statistically significant. These

percentages are also very similar to relevant proportions in the total population: 55% are married (2010: 61.2%), 33.3% are single (2010: 30.1%) and 9.3% are divorced (2010: 6.6%).

Figure 7: Marital status of adults with low literacy skills (Alpha Levels 1–3) (2018)

6.2 million adults with low literacy: percentages of people according to marital status



Source: Universität Hamburg, LEO 2018 – living with low literacy.
Base: German-speaking adults (aged 18–64) with low literacy skills, n=867, weighted.

4.3 What is the percentage of adults with low literacy skills within various different population groups?

12.1% of the total German-speaking adult population were found to have a low level of reading and writing proficiency (Alpha Levels 1–3). This chapter presents the sub-population of adults with low literacy skills as a percentage of specific population groups (e.g. men or women, employed or unemployed). Additional information has been recorded about the topics of work, family and education.

The **bar charts** in this chapter depict the percentage of adults with low literacy skills within a certain group, e.g. what proportion of men and women have low literacy skills? The charts show the percentage of people with skills assessed at Alpha Levels 1–3, Alpha Level 4 and above Alpha Level 4 for both 2010 and 2018. Significant changes are highlighted within the charts.

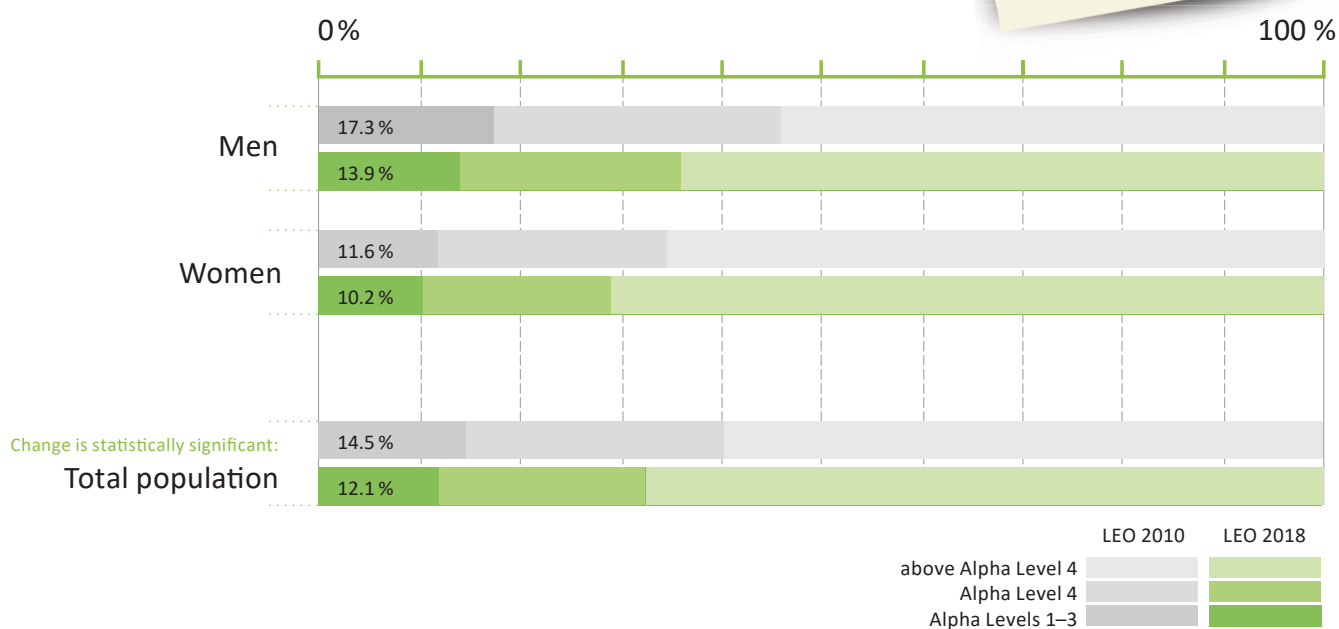
Gender

The percentage of men classified as having low literacy skills is higher than that of women. According to this survey, 13.9% of men were found to have a literacy proficiency level that ranked in the three lowest Alpha Levels. For women, this percentage share was 10.2%. In both cases, the

percentages have fallen compared with the 2010 survey, when the reading and writing skills of 17.4% of men and 11.6% of women were within Alpha Levels 1–3. These changes are not statistically significant (Figure 8).

Figure 8: Percentage of adults with low literacy skills (Alpha Levels 1–3) within groups sorted by gender, comparison between 2010 and 2018

Reading example for Figure 8:
 “In 2018, 13.9 percent of men and 10.2 percent of women aged 18 to 64 had low reading and writing skills.”



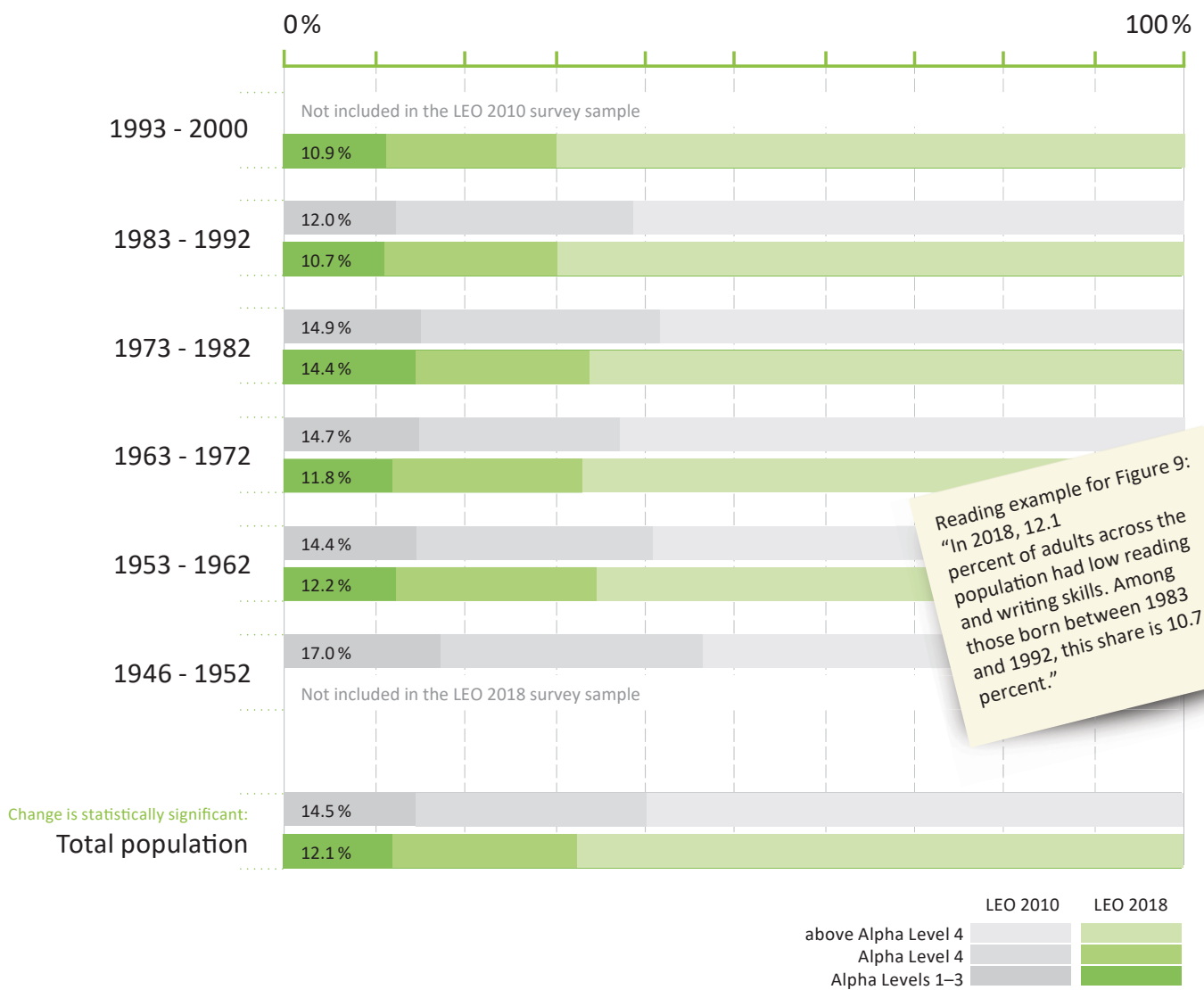
Source: Universität Hamburg, LEO 2018 – living with low literacy; leo. – Level One Survey 2010.
 Base: German-speaking adults (aged 18–64), n=7,192 (2018), n=8,436 (2010), both data sets are weighted. Deviations from 100% are due to rounding. Percentages of men and women in the 2018 weighted sample: men 50.7% (2010: 50.6%); women 49.3% (2010: 49.4%).

Age

The percentage of adults with low literacy skills is lower than the national average among the younger age groups (those born 1993–2000 and 1983–1992); in 2018, it was found to be just under 11% for both of these age groups. The highest percentage of adults with low literacy skills

was found among those born between 1973 and 1982. Compared with the data from 2010, the percentage shares have fallen in varying amounts for each age group. These decreases are not statistically significant (Figure 9).

Figure 9: Percentage of adults with low literacy skills (Alpha Levels 1–3) within different age groups, comparison between 2018 and 2010



Source: Universität Hamburg, LEO 2018 – living with low literacy; leo. – Level One Survey 2010.

Base: German-speaking adults (aged 18–64), n=7,192 (2018), n=8,436 (2010), both data sets are weighted. Deviations from 100% are due to rounding. Percentages of each age cohort in the 2018 weighted sample: 1993–2000: 13.3% (2010: not included); 1983–1992: 20.4% (2010: 19.2%); 1973–1982: 19.1% (2010: 18.9%); 1963–1972: 25.7% (2010: 26.4%); 1953–1962: 21.5% (2010: 23.4%); 1946–1952: not included in the 2018 sample (2010: 11.9%).

Age groups: In order to compare the percentage shares of adults with low literacy skills in both surveys, the sample set was divided into groups according to their year of birth (age cohorts). Comparable data is not available from both surveys for the youngest or the oldest age groups. At the time of the 2010 survey, the cohort born 1993–2000 was still too young to be included in the sample of 18–64 year olds, whilst the cohort born 1946–1952 was already over 64 years old by

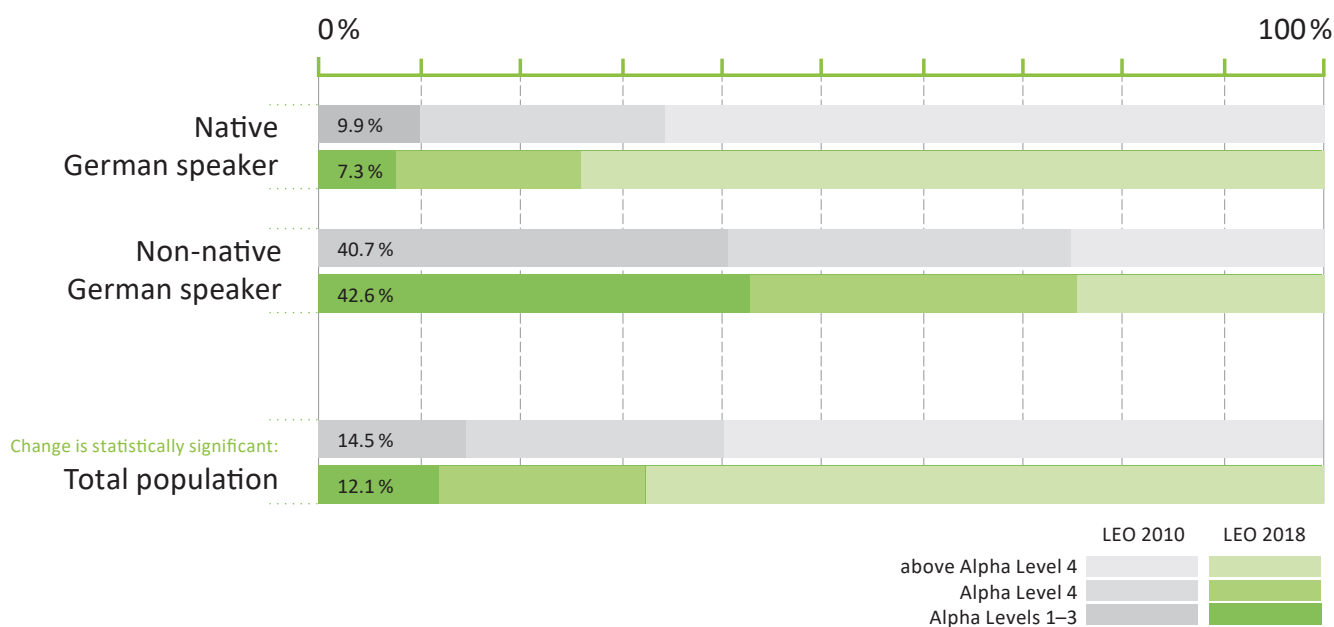
the time of the 2018 survey. It should be noted that the groups were not the same age during the two surveys. For example, those born between 1973 and 1982 were 28–37 years old during the LEO 2010 survey. By the time of the second survey, members of this group were between 36 and 45 years old. However, the two surveys did not interview the same people as would be done in a longitudinal survey, instead, each survey was based on separate sample groups.

First language

When comparing the percentages of people with a low level of reading and writing proficiency (Alpha Levels 1–3), there are clear differences between those who learnt German as their first language during childhood and those who did not learn German until later in life. Of all adults who speak German as their first language, 7.3% have

low literacy skills in German written language (2010: 9.9%), whilst for those who speak a different language as their first language, 42.6% have low literacy skills in German written language (2010: 40.7%). The changes in the proportions of adults with low literacy skills compared with LEO 2010 are not statistically significant (Figure 10).

Figure 10: Percentage of adults with low literacy skills (Alpha Levels 1–3) within groups sorted by first language, comparison between 2018 and 2010



Source: Universität Hamburg, LEO 2018 – living with low literacy; leo. – Level One Survey 2010.

Base: German-speaking adults (aged 18–64), n=7,192 (2018), n=8,436 (2010), both data sets are weighted. Deviations from 100% are due to rounding. Percentage of people with different first languages in the 2018 weighted sample: first language German: 86.6% (2010: 85.1%); first language other than German: 13.4% (2010: 14.9%).

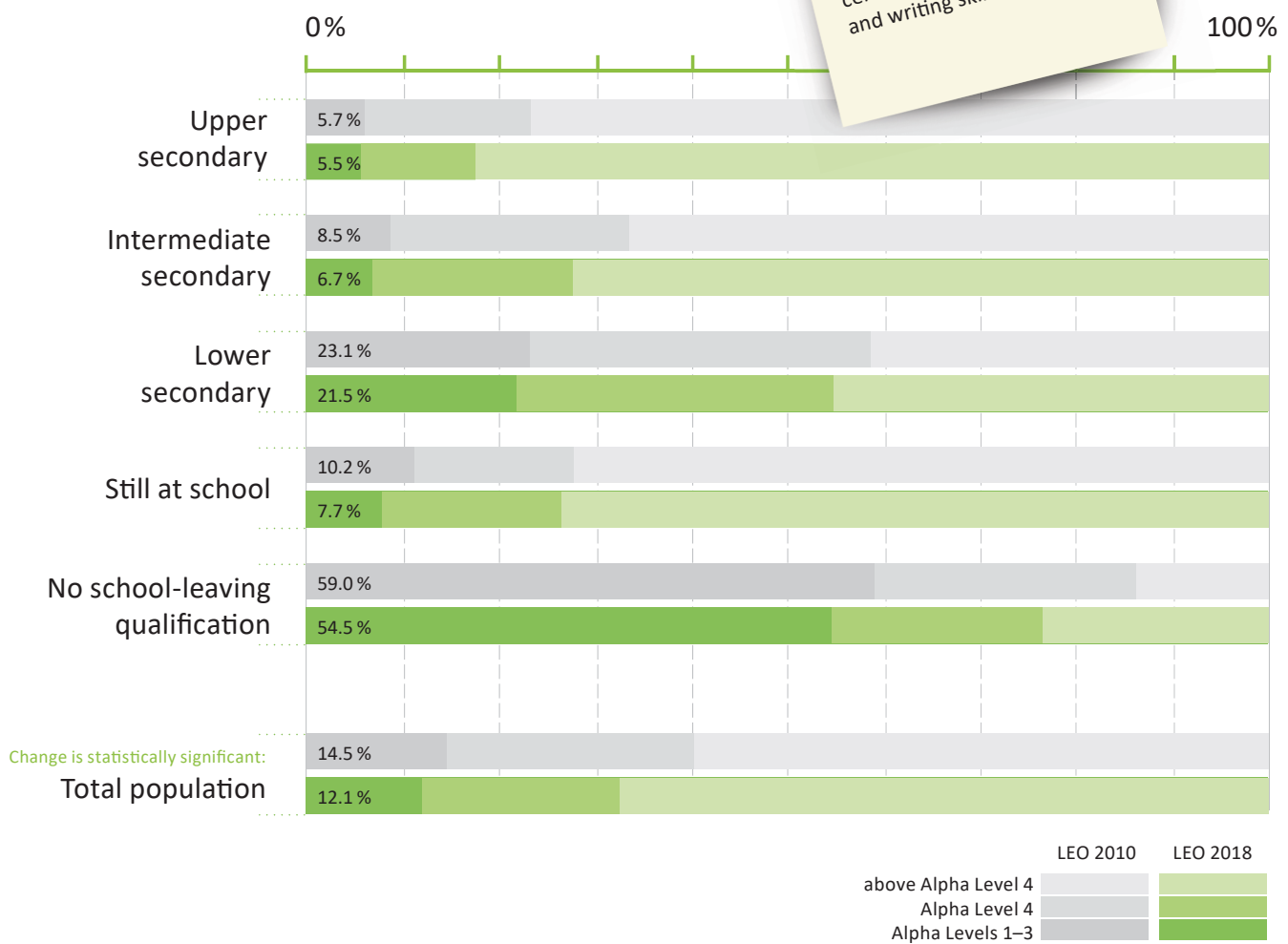
Reading example for Figure 10: "In 2018, 12.1 percent of adults across the population had low reading and writing skills. Among those with German as their language of origin, this share is 7.3 percent."

Qualifications and continuing education

A strong correlation was found between the level of educational qualification achieved and a person's reading and writing skills. Whilst 12.1% of all interviewees were found to have low proficiency in reading and writing, attaining Alpha Levels 1–3 (2010: 14.5%), this percentage was considerably higher – 21.5% – among those who only

achieved a *Hauptschule* qualification, the lowest form of school-leaving certificate available in Germany (2010: 23.1%). More than one in two people (54.5%) without any form of school-leaving qualification have low literacy skills (2010: 59.0%). The changes for individual groups between 2010 and 2018 are not statistically significant (Figure 11).

Figure 11: Percentage of adults with low literacy skills (Alpha Levels 1–3) within groups sorted by educational qualification



Source: Universität Hamburg, LEO 2018 – living with low literacy; leo. – Level One Survey 2010.

Base: German-speaking adults (aged 18–64), n=7,192 (2018), n=8,436 (2010), both data sets are weighted. The response category "Not specified" is not included in the diagram. Deviations from 100% are due to rounding. Percentage of each level of educational qualification in the 2018 weighted sample: Abitur or equivalent upper secondary qualification: 37.2% (2010: 31.4%); Mittlerer Schulabschluss or equivalent intermediate secondary qualification: 33.5% (2010: 32.3%); Hauptschulabschluss or equivalent lower secondary qualification: 22.8% (2010: 29.9%); still at school: 1.4% (2010: 0.9%); no school-leaving qualification: 4.9% (2010: 4.7%); not specified: 0.2% (2010: 0.8%).

The idea behind lifelong learning is that education does not finish upon achieving a school-leaving certificate (see Kleinert 2014 and Iller 2017 for more about the link between participation in continuing education and formal education). The LEO survey therefore also captures information about participation in continuing education. As was also seen in 2010, participation in continuing education by adults with low literacy skills is lower than the national average – just 28.1% of adults with low literacy skills took part in any type of continuing education activity in the last twelve months (2010: 28%)². Participation rates have stagnated since 2010. In contrast, 46.9% of all adults have taken part in some form of continuing education in the last twelve months (2010: 42%). Participation in continuing education courses that explicitly focus on basic education and literacy is very low. Only 0.7% of adults with low literacy skills were found to participate in such kinds of education. This corresponds with statistics from adult education centres (Volkshochschulen) concerning low attendance figures for basic education and literacy-related courses (Reichart, Huntemann & Lux 2019:47). The proportion of adults with low literacy skills participating in continuing education is therefore considerably higher than participation in literacy courses alone.

It can also be seen that adults with low literacy skills participate less frequently in work-related adult education activities. This segment of the population is more likely to be employed in simple ancillary work in fields with limited opportunity for further training, e.g. the construction industry (Destatis 2017:32). In addition to individual effects, industry-specific effects also play an important role here.

The majority of adults with low literacy skills have a generally positive attitude towards continuing education recommendations – 59.7% stated that they would follow the recommendation of their superiors to take part in a non-compulsory training course. For the total German population, this percentage share was 65.8%.

Among the reasons mentioned for participating in continuing education, work-related reasons were most important for adults with low literacy skills: 56.9% said that the main reason they took part in their most recent training course was to improve their performance at work, while 37.4% said they wanted to improve their career prospects. The third most important reason given was to acquire skills for daily life, which was mentioned by 36.9% of adults with low literacy skills (Table 3).

² In LEO 2010, the definition of adults with low literacy skills that was used to calculate participation rates in continuing education was based on a different set of methodological principles than those used in 2018. There are therefore limitations to the comparability of the continuing education data for LEO 2010 and LEO 2018.

Table 3: The three reasons for undertaking training most frequently cited by adults with low literacy (multiple answers permissible), showing percentages according to Alpha Level and of the overall population

Reason for continuing education participation	Alpha 1–3	Alpha 4	Above Alpha 4	Total population
To improve performance at work	56.9%	60.2%	62.7%	61.9%
To improve career prospects	37.4%	36.3%	31.8%	32.9%
To acquire skills for daily life	36.9%	37.1%	36.9%	36.9%

Source: Universität Hamburg, LEO 2018 – living with low literacy. Base: German-speaking adults (aged 18–64) who have taken part in at least one form of continuing education activity in the last twelve months, n=3,372, weighted.

The most important reason for not taking part in continuing education activities was a lack of time: 16.8% of adults with low literacy skills mentioned work commitments, while 16.1% mentioned family obligations as obstacles. “Other personal reasons” that were not further specified were mentioned by 14.9% of people with low reading and writing proficiency.

Reading example for Table 3:
“Of the adults with low reading and writing skills, 36.9 percent participated in continuing education in order to acquire knowledge for everyday life.”

Table 4: The three reasons for not undertaking training most frequently cited³ by adults with low literacy skills (multiple answers permissible), showing percentages according to Alpha Level and of the overall population

Reason against participation in continuing education	Alpha 1–3	Alpha 4	Above Alpha 4	Total population
No time due to work commitments	16.8%	18.9%	19.2%	18.7%
No time due to family obligations	16.1%	19.7%	21.7%	20.3%
Other personal reasons	14.9%	14.7%	18.5%	17.0%

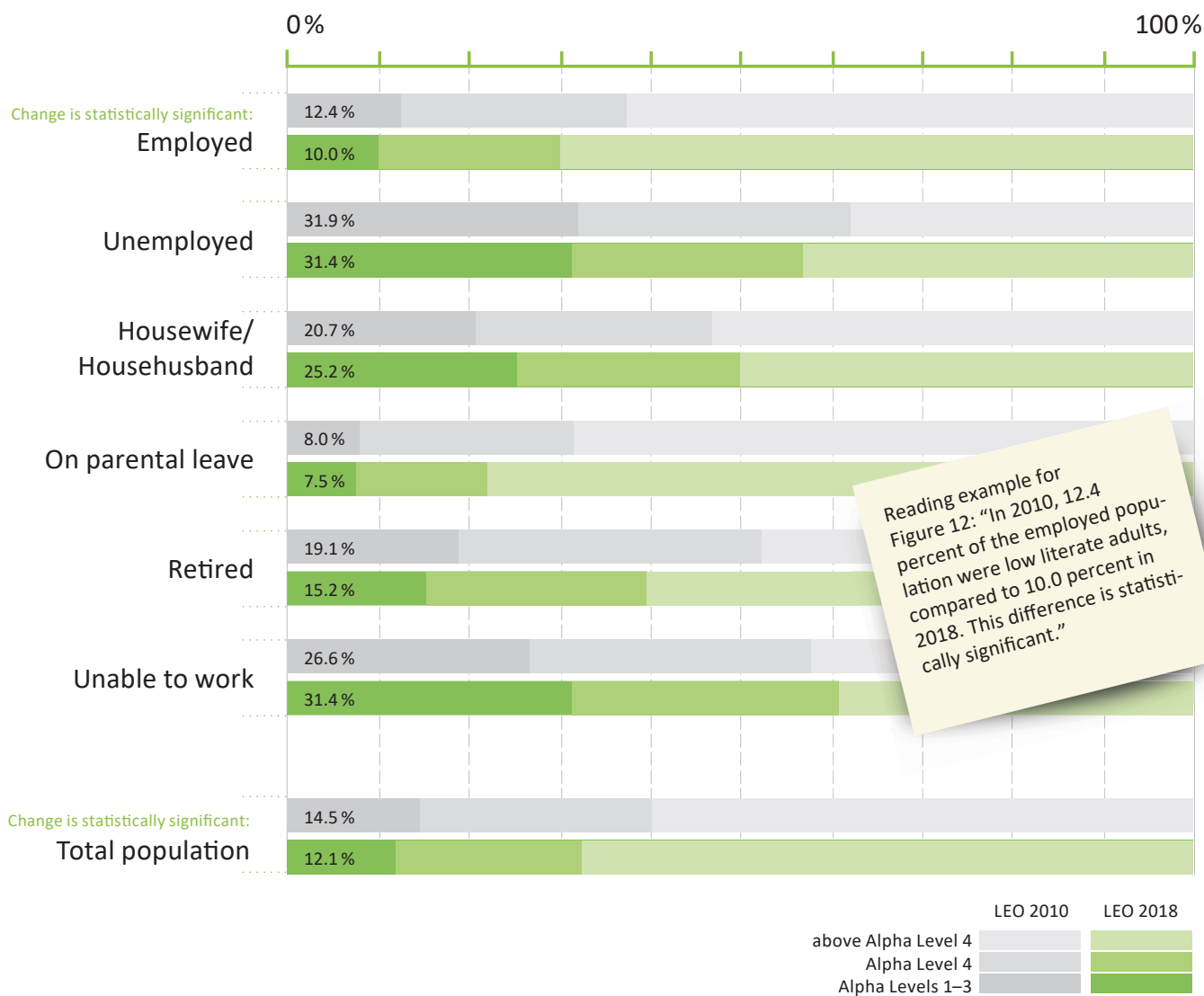
Source: Universität Hamburg, LEO 2018 – living with low literacy. Base: German-speaking adults (aged 18–64) who have not taken part in any continuing education activity in the last twelve months, n=3,820, weighted.

Reading example for Table 4: “16.8 percent of adults with low reading and writing skills did not take part in continuing education due to a lack of time because of work commitments.”

³ The response category “None of the above” was mentioned most frequently by all groups, however it is not depicted here due to a lack of informative value.

Employment status

Figure 12: Percentage of adults with low literacy skills (Alpha Levels 1–3) within groups sorted by employment status, comparison between 2018 and 2010



Source: Universität Hamburg, LEO 2018 – living with low literacy; leo. – Level One Survey 2010. Base: German-speaking adults (aged 18-64), n=7,192 (2018), n=8,436 (2010), both data sets are weighted. The remaining response categories and cases in which no information was provided are not shown in the diagram. Deviations from 100% are due to rounding. Percentage shares of different employment situations in the 2018 weighted sample: employed 75.5% (2010: 66.4%); unemployed 5% (2010: 7.6%); housewife/househusband 3.9% (2010: 6.3%); on parental leave 2.3% (2010: 2%); retired 4.4% (2010: 4.8%); unable to work 1.3% (2010: 1.3%); in training/education 6.3% (2010: 10.4%); other/not specified 1.4% (2010: 1.2%).

At 10%, the proportion of adults with low literacy skills among the working population is lower than in the total adult population (12.1%). Meanwhile,

at 31.4%, their share in the unemployed population is higher than the national average. The same is also true for the smaller group of those unable

to work (31.4%). Compared with 2010, the percentages have risen for the two groups of those unable to work and those who class themselves as housewives/househusbands, while they have fallen for the other employment categories. The decrease seen in the ‘Employed’ category is statistically significant (Figure 12).

Of all adults with low literacy skills who are in employment, 45.5% are employees, 40.1% are

workers, 7.2% are in marginal employment and 6.3% are self-employed. Considerable differences can be seen when comparing these figures with the national averages, particularly in terms of the numbers of workers and employees. The total working population is made up of 62.1% employees, 14.8% workers, 10.4% self-employed and 5.3% in marginal employment (Table 5).

Table 5: Occupational status by Alpha Level

Occupational status	Alpha 1–3	Alpha 4	Above Alpha 4	Total population
Marginal employment (mini-job, limited to €450/month or in temporary employment with a maximum of 50 days work/year) ⁴	7.2%	5.8%	4.9%	5.3%
Worker	40.1%	21.8%	9.2%	14.8%
Employee	45.5%	59.0%	65.3%	62.1%
Civil servant (including judges and members of the armed forces)	0.4%	2.8%	9.3%	7.1%
Self-employed	6.3%	10.1%	11.0%	10.4%
Unpaid family worker	0.3%	0.2%	0.1%	0.2%
Not specified	0.2%	0.4%	0.2%	0.2%
Total	100%	100%	100%	100%

Source: Universität Hamburg, LEO 2018 – living with low literacy.

Base: German-speaking adults currently in employment (aged 18–64, not including trainees and interns), n=5,546, weighted. Deviations from 100% are due to rounding.

Reading example for Table 5:
“Of the adults with low reading and writing skills, 45.5 percent are employed. In the total population, 62.1 percent are employed.”

The vast majority of jobs require at least a basic level of proficiency in reading and writing (see Solga 2013, based on the results of the PIAAC survey). At the same time, work has a diverse range of functions – it generates income, provides a sense of purpose and is considered a status symbol. An overwhelming majority (86.2%) of the overall population stated that work was important for them as it gave them a sense of belonging. Agreement is as high as 87.5% among adults

with low literacy skills. For the majority of the employable population, money was not the only incentive to work. 70.5% of the overall population said that they would be happy to work even if they did not need the money. In contrast, 59.7% of adults with low literacy skills said that they would still go to work even if it were not financially necessary (Table 6).

⁴ The category of people in marginal employment was newly included in the 2018 LEO survey, analogous to the Adult Education Survey (AES). This differentiation was not implemented in LEO 2010. There are therefore limitations to the comparability of the data from LEO 2010. The definition and assignment of the categories ‘workers’ and ‘employees’ is subject to change, as is the recording of these categories in the German Microcensus. Caution is therefore advised when interpreting these results.

Table 6: Agreement with statements of opinion about work by Alpha Level (“Agree completely” or “Agree somewhat”)

	Alpha 1–3	Alpha 4	Above Alpha 4	Total population
Work is important because it gives you a sense of belonging.	87.5%	85.9%	86.1%	86.2%
I would still be happy to work, even if I did not need the money.	59.7%	67.6%	73.3%	70.5%

Source: Universität Hamburg, LEO 2018 – living with low literacy.
 Base: German-speaking adults (aged 18–64), n=7,192, weighted.

Reading example for Table 6: “For 87.5 percent of people with low reading and writing skills, work is important because it gives them a feeling of belonging.”

The vast majority of the working population stated that they receive recognition in the workplace for the work they do – regardless of their Alpha Level. Thus, 74.8% of the total working population felt they received recognition from their superiors at work. At 71.5%, a similar level of agreement is also seen among working adults with low literacy. However, when it comes to their own prospects of promotion, clear differences can be seen between Alpha Levels. In total, 71.2% of the

working population felt that their own prospects of promotion were commensurate to their effort and performance. However, only 62.6% of working adults with low literacy said that they agreed with this statement (Table 7).

Table 7: Agreement with statements about the workplace by Alpha Level (“Agree completely” or “Agree somewhat”)

	Alpha 1–3	Alpha 4	Above Alpha 4	Total population
I receive the recognition that I deserve from my superiors or managers at work.	71.5%	73.7%	75.5%	74.8%
When I consider my effort and achievement at work. I think that my personal prospects to advance in my job are appropriate.	62.6%	69.9%	72.8%	71.2%

Source: Universität Hamburg, LEO 2018 – living with low literacy.
 Base: German-speaking adults (aged 18–64) who are employed, n=5,578, weighted.

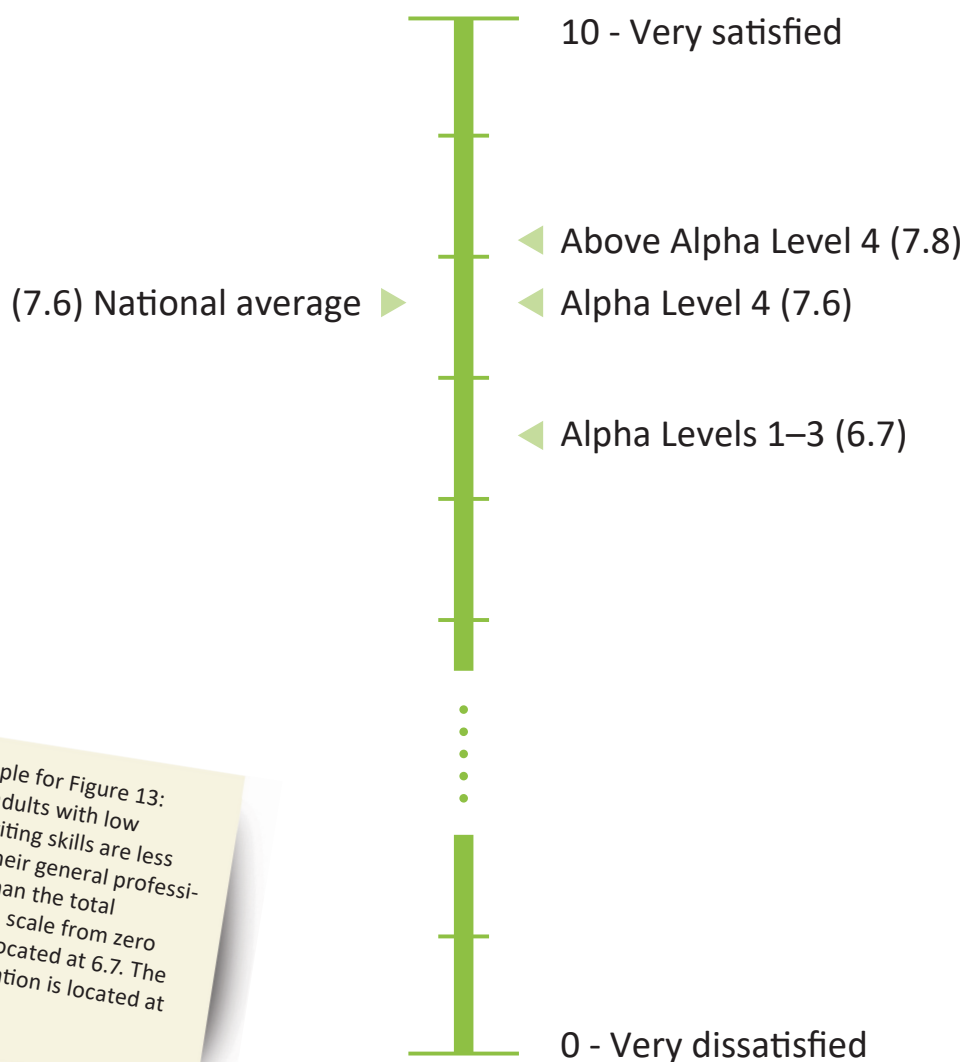
Reading examples for Table 7: “71.5 percent of the adults with low reading and writing skills report that their supervisors give them the recognition they deserve.”

Adults with low literacy skills are less satisfied with their overall situation at work (Figure 13). On a scale from 0 (very dissatisfied) to 10 (very satisfied), the average satisfaction rating for adults with low literacy skills is 6.7 while the average

rating for the total population is 7.6. The difference between adults with low literacy skills and those with a higher degree of proficiency is statistically significant ($p < 0.01$).

Figure 13: Job satisfaction by Alpha Level

Overall job satisfaction



Reading example for Figure 13:
 “On average, adults with low reading and writing skills are less satisfied with their general professional situation than the total population. On a scale from zero to ten, they are located at 6.7. The total adult population is located at 7.6 on average.”

Source: Universität Hamburg, LEO 2018 – living with low literacy.

Base: German-speaking adults (aged 18–64) who gave a response to this question, $n=6,941$, weighted. People who did not give a response ($n=250$) were not included in the calculations.

Concerns about job security are much higher among adults with low literacy skills than in the total working population. 23.0% of people with low literacy stated that they were worried about losing their jobs, whilst only 11.8% of the total working population expressed concern about

their job security. Furthermore, 57.9% of adults with low literacy said that it would be difficult for them to find a new job of equal value or standing. This view was shared by 47.2% of the overall working population (Table 8).

Table 8: Statements about job security by Alpha Level

	Alpha 1–3	Alpha 4	Above Alpha 4	Total population
Difficulty finding a new job equivalent to the current or most recent job (“Quite difficult” or “Difficult”).	57.9%	49.1%	44.7%	47.2%
I am worried about losing my job.*	23.0%	13.1%	9.9%	11.8%

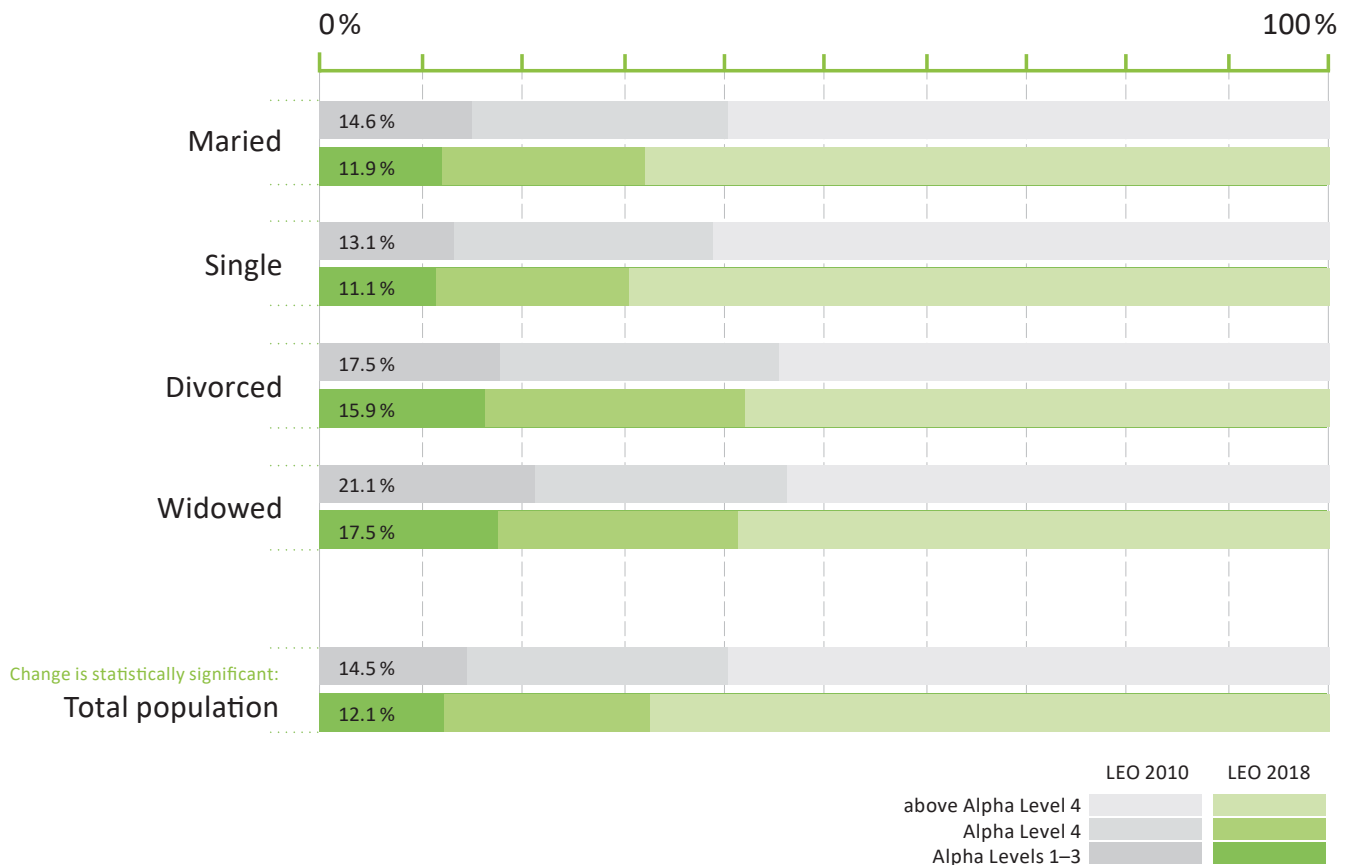
Source: Universität Hamburg, LEO 2018 – living with low literacy.

Base: German-speaking adults (aged 18–64) who have been employed in the last twelve months, n=6,813; + German-speaking adults (aged 18–64) currently in work, n=5,578, both weighted.

Reading example for Table 8:
 “23.0 percent of employed people with low reading and writing skills worry about losing their job.”

Family and living situation

Figure 14: Percentage of adults with low literacy skills (Alpha Levels 1–3) within groups sorted by marital status, comparison between 2018 and 2010



Source: Universität Hamburg, LEO 2018 – living with low literacy; leo. – Level One Survey 2010.

Base: German-speaking adults (aged 18–64), n=7,192 (2018), n=8,436 (2010), both data sets are weighted. The response categories “Other” and “Not specified” are not shown in the diagram. Deviations from 100% are due to rounding. Percentages of adults in the 2018 weighted sample by marital status: married: 55% (2010: 61.2%); single: 33.3% (2010: 30.1%); divorced: 9.3% (2010: 6.6%); widowed: 1.7% (2010: 1.7%); other or not specified: 0.8% (2010: 0.4%).

Reading example for Figure 14:
 “In 2018, 11.9 percent of married people and 11.1 percent of single people were among the low literalized adults.”

Among the groups of married people and single people, the percentages of adults with low literacy skills are slightly lower than the national average, at 11.9% and 11.1% respectively. Percentage shares among divorced people and widowed people are higher than the national average at 15.9% and 17.4% respectively (Figure 14).

Differences between the Alpha Levels in terms of marital status are minor. Table 9 shows that the

proportions of all marital status categories are roughly the same for adults with low literacy skills as for the overall population. For example, 51.4% of adults with low literacy skills are married and living with their spouse; within the total population, 53.1% fall into the same category. The differences in percentages compared with LEO 2010 are not statistically significant.

Table 9: Marital status by Alpha Level

	Alpha 1–3	Alpha 4	Above Alpha 4	Total population
Married, living together with spouse	51.4%	52.4%	53.6%	53.1%
Married, living separately from spouse	2.7%	1.7%	1.8%	1.9%
Single	30.7%	31.4%	34.3%	33.3%
Divorced	12.2%	11.7%	8.0%	9.3%
Widowed	2.4%	1.9%	1.4%	1.7%
Other	0.4%	0.5%	0.7%	0.6%
Not specified	0.2%	0.3%	0.2%	0.2%
Total	100%	100%	100%	100%

Source: Universität Hamburg, LEO 2018 – living with low literacy. Base: German-speaking adults (aged 18–64), n=7,192, weighted. Deviations from 100% are due to rounding.

63.6% of adults with low literacy skills have a partner (married or unmarried). Among the total population, the percentage of people who are in a relationship is slightly higher at 69.9%. 60.6% of adults with low literacy skills live in the same household as their partner (total population: 66.3%) (Table 10). The differences in percentages compared with LEO 2010 are not statistically significant.

Reading example for Table 9:
 “Among the adults with low reading and writing skills, 30.7 percent are single. Of the total population, 33.3 percent are single.”

Table 10: Relationships and living situations by Alpha Level

	Alpha 1–3	Alpha 4	Above Alpha 4	Total population
Lives together with partner	60.6%	64.2%	68.0%	66.3%
Does not live together with partner	3.0%	3.2%	3.8%	3.6%
Not in a relationship	36.3%	32.4%	28.0%	29.9%
Not specified	0.1%	0.2%	0.2%	0.2%
Total	100%	100%	100%	100%

Source: Universität Hamburg, LEO 2018 – living with low literacy. Base: German-speaking adults (aged 18–64), n=7,192, weighted.

Independent of relationship status, 20.9% of adults with low literacy skills live by themselves. The national average for people living in single-person households is slightly lower at 16.9%

(Table 11). The differences in percentages compared with LEO 2010 are not statistically significant.

Table 11: Household size by Alpha Level

	Alpha 1–3	Alpha 4	Above Alpha 4	Total population
Alone	20.9%	18.5%	15.6%	16.9%
In a household with multiple people:	79.1%	81.4%	84.3%	83.1%
2 people	27.9%	30.5%	32.7%	31.7%
3 people	20.1%	22.8%	23.3%	22.8%
4 people	17.4%	17.4%	20.0%	19.2%
5 or more people	13.7%	10.6%	8.3%	9.4%
Not specified	0.0%	0.1%	0.1%	0.1%
Total	100%	100%	100%	100%

Source: Universität Hamburg, LEO 2018 – living with low literacy.

Base: German-speaking adults (aged 18–64), n=7,192, weighted. Deviations from 100% are due to rounding.

Reading example for Table 11:
 “20.9 percent of the adults with low reading and writing skills live alone. Of the total population, 16.9 percent live alone.”

Reading example for Table 10:
 “Of the adults with low reading and writing skills, 60.6 percent live in the same household as their partner. Of the total population, 66.3 percent live in a household as partners.”

In terms of the number of children within a household, there are only minor differences between adults with low literacy skills and the total population, both with regard to the presence

of children and the number of children within a household. Just over a third of all households include children (Table 12).

Table 12: Number of children (aged 0–17) per household by Alpha Level

	Alpha 1–3	Alpha 4	Above Alpha 4	Total population
No children	62.0%	65.3%	64.0%	64.0%
1 child	16.3%	17.6%	18.3%	17.9%
2 children	13.9%	12.0%	13.7%	13.4%
3 children	5.6%	3.3%	3.2%	3.5%
4 or more	2.2%	1.7%	0.8%	1.1%
Not specified	0.0%	0.1%	0.0%	0.0%
Total	100%	100%	100%	100%

Source: Universität Hamburg, LEO 2018 – living with low literacy.

Base: German-speaking adults (aged 18–64), n=7,192, weighted. Deviations from 100% are due to rounding.

Reading example for Table 12:
 “13.9 percent of the adults with low reading and writing skills live with two children (0-17 years) in their household. Within the total population, 13.4 percent live together with two children (0-17 years) in one household.”

The concept of family literacy has become increasingly prominent within the field of literacy research. This approach focuses on promoting the development of reading and writing skills in the family environment. Repeated positive experiences of reading within the family help to foster children’s literacy skills (McElvany, Becker & Lüdtker 2009).

Parents who have low literacy skills spend less time reading to their children than parents with a

higher level of literacy. Overall, 44.8% of parents indicated that they read to their children (up to the age of twelve) on a daily basis. In contrast, 30.7% of parents with low literacy said that they read to their children every day (Table 13). It was not asked which language was being used for this activity. Looking at picture books together was also classed as reading together.

Table 13: Time spent reading aloud to children by Alpha Level

	Alpha 1–3	Alpha 4	Above Alpha 4	Total population
At least once a day	30.7 %	39.6 %	49.5 %	44.8 %
At least once a week	28.6 %	23.6 %	25.9 %	25.8 %
Less than once a week	15.4 %	12.6 %	8.2 %	10.1 %
Never	20.5 %	21.7 %	13.8 %	16.3 %
Not specified	4.8 %	2.6 %	2.6 %	2.9 %
Total	100 %	100 %	100 %	100 %

Source: Universität Hamburg, LEO 2018 – living with low literacy.
 Base: German-speaking adults (aged 18–64) with children under 12 years old at home, n=1,909, weighted. Deviations from 100% are due to rounding.

Reading example for Table 13: “Among parents with low reading and writing skills, 30.7 percent read to their children at least once a day. Of the total population, 44.8 percent read to their children at least once a day.”

Reading and writing skills are required for a wide range of household tasks. But who takes care of household paperwork? Previous findings have suggested that written tasks are often delegated to people with a higher level of literacy, particularly within family relationships (for more on the issue of delegation see Egloff 1997).

Table 14 shows that a majority of 69.9% of adults with low literacy skills deal with paperwork themselves (multiple answers permissible). For the total population, this value is 81.4%. Around a third

of adults said that their partner took care of all written correspondence. The sub-group of adults with low literacy skills hardly differs from the national average in this respect.

Table 14: Who takes care of household paperwork by Alpha Level (multiple answers permissible)

	Alpha 1–3	Alpha 4	Above Alpha 4	Total population
Myself	69.9 %	77.7 %	84.6 %	81.4 %
My partner	37.3 %	37.6 %	38.5 %	38.2 %
Another member of the household	9.6 %	7.8 %	8.0 %	8.2 %

Source: Universität Hamburg, LEO 2018 – living with low literacy.
 Base: German-speaking adults (aged 18–64), n=7,192, weighted.

Reading example for Table 14: “69.9 percent of those with low reading and writing skills take care of household correspondence. Of all adults, 81.4 percent take care of written matters.”

5 Text-related practices

It is often assumed that a low level of proficiency in reading and writing can lead to social exclusion. In order to investigate this connection, the LEO Survey set out to take a differentiated look at life with low literacy by exploring **text-related and non-text-related practices** in various aspects of daily life. In doing so, it can be seen whether

low literacy really does lead to social exclusion or whether it is still possible for adults with low literacy skills to participate in the areas of life in question. In order to capture literacy-related practices, questions were asked about how often participants carried out certain activities in their daily lives.

5.1 Literacy and mobility

Choices regarding modes of transport reveal clear differences between Alpha Levels. Compared with the overall population (23.2%), a larger proportion of adults with low literacy skills (31.1%) use public transport regularly (at least once a week). Overall, private motorized transport is regularly used by 77.9% of the population, however,

57.5% of people with low literacy regularly use a car, motorbike or moped (Table 15). The data does not allow any inferences to be made regarding the reasons behind this lower degree of motorization, e.g. costs, environmental arguments or possession of a driving licence.

Table 15: Regular use of different modes of transport by Alpha Level (“Daily” or “At least once a week”)

	Alpha 1–3	Alpha 4	Above Alpha 4	Total population
Car, motorbike, moped	57.5%	76.6%	82.0%	77.9%
Bicycle	29.6%	39.4%	47.0%	43.3%
Public transport, e.g. local buses, trains and ferries	31.1%	22.9%	22.0%	23.2%

Source: Universität Hamburg, LEO 2018 – living with low literacy.
Base: German-speaking adults (aged 18–64), n=7,192, weighted.

Adults with low literacy skills frequently use ticket machines to buy their tickets (20.6%) or buy them when on-board the transport (21.5%). Ticket machines are also the most popular method of buying tickets for the total population (25.5%). Used by 16.9% of the overall population, the second most popular method for buying public transport tickets is to buy them online or using a specific app. Only 7.3% of adults with low literacy skills frequently go online or use an app to buy their travel tickets (Table 16).

Reading example for Table 15:
“Among those with low reading and writing skills, 31.1 percent use public transport at least once a week. Of all adults, 23.2 percent use public transport at least once a week.”

Table 16: Frequently used methods of buying travel tickets by Alpha Level (“Often” or “Quite often”), multiple responses permissible

	Alpha 1–3	Alpha 4	Above Alpha 4	Total population
Online or with an app	7.3 %	12.7 %	19.7 %	16.9 %
Ticket machine	20.6 %	22.6 %	27.3 %	25.5 %
When on board the transport	21.5 %	14.3 %	13.8 %	14.9 %
Over the counter or at the travel centre	12.1 %	11.8 %	10.1 %	10.7 %

Source: Universität Hamburg, LEO 2018 – living with low literacy.
 Base: German-speaking adults (aged 18–64), n=7,192, weighted.

Reading example for Table 16: “Of those with low reading and writing skills, 7.3 percent frequently purchase a ticket online or with an app. Of all adults, 16.9 percent frequently purchase a ticket online or with an app.”

5.2 Literacy and digital practices

Use of information and communication technologies (ICT): Internationally, adults in Germany typically have a comparatively low level of ICT proficiency (Wicht, Lechner & Rammstedt 2018). Are adults with low reading and writing skills at a particularly high risk of not being able to keep pace with the digital transformation? Digital practices are far too diverse to provide a straightforward answer to the question of whether adults with low literacy skills use ICT less than those with higher levels of literacy. There are indeed some areas in which less frequent usage could be identified. These included the regular (i.e. daily or weekly) use of computers with internet access or writing emails. In contrast, only minor differences were

found in terms of the use of web-enabled smartphones or tablets, and the sending of short text messages (e.g. WhatsApp, SMS).

Furthermore, there are also some digital practices that adults with low literacy skills use more often than the average adult population. These include the regular use of voice messages or video calls and the regular use of social media (e.g. Facebook or Instagram) (Table 17). Thus, many people with low literacy skills are frequently presented with reasons to read and write. However, it is important to note that the item “Writing in social media” can cover both the composition of longer texts and posting “Likes” or short statements.

Table 17: Regular use of digital media by Alpha Level (“Daily” or “At least once a week”). Percentages of people sorted by Alpha Level and the national average.

	Alpha 1–3	Alpha 4	Above Alpha 4	Total population
Regularly use a computer with internet access	55.4 %	75.5 %	89.7 %	82.7 %
Regularly use a smartphone or tablet	78.0 %	86.6 %	92.2 %	89.4 %
Regularly write emails	35.9 %	53.7 %	71.7 %	63.7 %
Regularly write short messages (e.g. WhatsApp, SMS)	70.3 %	82.5 %	90.1 %	86.2 %
Regularly send voice messages	39.1 %	38.9 %	36.6 %	37.4 %
Regularly make video calls	19.1 %	15.8 %	12.6 %	14.1 %
Regularly read posts on social media	41.8 %	43.6 %	40.6 %	41.4 %
Regularly write own posts on social media	23.5 %	19.6 %	18.6 %	19.4 %

Source: Universität Hamburg, LEO 2018 – living with low literacy.
 Base: German-speaking adults (aged 18–64), n=7,192, weighted.

When looking at practices that do not focus on communication, but on finding information, it was found that adults with a lower level of literacy use ICT services less frequently. This is reflected in the use of the internet to search for addresses and route descriptions. 43.7% of the total population use the internet to search for this type of information, whereas 36.7% of adults with low literacy use the internet for this purpose. When searching for information about a range of different topics (health, hobbies, parenting, computing), 50.0% of the overall population regularly use the internet for their searches compared with 41.7% of adults with low literacy.

Reading example for Table 17:
 “Among the adults with low reading and writing skills, 70.3 percent write short messages regularly, i.e. daily or at least once a week. In the total population, 86.2 percent write short messages regularly.”

5.3 Literacy and financial practices

Responsibility for household finance-related tasks: The aspect of financial literacy has become increasingly significant within the discussion of basic education (Mania & Tröster 2015). Financial literacy forms the basis for being able to successfully manage finance-related tasks. 76.9% of all adults take on responsibility for dealing with household finance-related tasks. This allocation of responsibilities is largely independent of reading and writing ability.

Carrying out bank transactions: The way in which people pay their bills or make bank transfers has changed substantially, not least due to the recent move towards online banking. Making payments via online banking is particularly well-established among adults with a higher degree of literacy (Table 18). People with low literacy skills are much more likely to carry out their transactions in the more traditional way using paper forms and are therefore more affected by the closure of local bank branches.

Table 18: Frequently used payment practices by Alpha Level (“Often” or “Quite often”). Percentages of people sorted by Alpha Level and the national average.

	Alpha 1–3	Alpha 4	Above Alpha 4	Total population
Frequent use of bank transfer forms	42.3 %	31.6 %	20.2 %	25.1 %
Frequent use of online banking ¹	40.6 %	58.6 %	71.1 %	65.3 %
Frequent use of in-branch bank transfer terminals	20.8 %	23.9 %	20.3 %	21.2 %

Source: Universität Hamburg, LEO 2018 – living with low literacy. Base: German-speaking adults (aged 18–64) who have a bank account, n=6,933, weighted.

¹ Only persons with access to the Internet (n=6,645) were asked about online banking.

Reasons given for not using online banking can be split into three groups: a lack of necessity, concerns about security and a lack of technical competence. In general, the aspect of competence, i.e. that the use of online banking is perceived as too difficult, only plays a secondary role. However, adults with low literacy skills mentioned it three times more often (22.2%) than the overall population as an obstacle to using online banking.

Searching for information: When faced with making a major purchase, people of all literacy levels use brochures, catalogues or advice from friends and family to a similar extent. However, a clear difference can be seen in the use of the internet as a source of information. 48.5% of adults with

Reading example for Table 18: “Of those adults with low reading and writing skills, 42.3 percent (rather) often pay by transfer form. On average, 25.1 percent of the population use this payment method.”

low literacy skills said that they often or quite often used the internet to find information. This percentage is considerably higher for the total German population at 69.1%.

5.4 Literacy and political practices

Many political practices require literacy skills in order to obtain comprehensive information about political issues or to express political opinions in writing. However, to date, political practices have only played a secondary role in skills studies. The link between literacy and political participation has therefore not been explored sufficiently. By capturing information about political practices in LEO 2018, it is now possible to examine the areas where adults with low literacy skills are excluded from participating in political life in greater detail.

Finding information about political events: Clear differences can be seen regarding the percentage of people who read the newspaper (in paper form or online), with only 23.6% of adults with low literacy skills stating that they read the newspaper

on a daily basis compared with 41.9% of the total population. Differences are less pronounced when looking at the consumption of television and online news programmes. This non-text-related practice is carried out on a daily basis by 61.7% of participants with low literacy skills and 62.3% of the total population.

However, other non-text-related practices reveal greater differences. Only 34.6% of adults with low literacy skills (total population: 55.4%) discuss current political news with friends or family once a week or more. Likewise, involvement in voluntary work is also lower. As a percentage of the total population, 19.0% of participants stated that they did voluntary work at least once a month, compared with 7.1% of participants with low literacy skills.

Table 19: Engagement in political practices. Percentages of people sorted by Alpha Level and the national average.

	Alpha 1–3	Alpha 4	Above Alpha 4	Total population
Read a newspaper every day (print or online)	23.6%	38.7%	46.1%	41.9%
Watch the news every day (on TV or online)	61.7%	65.3%	61.4%	62.3%
Discuss current political news with friends or family at least once a week	34.6%	50.2%	60.7%	55.4%

Source: Universität Hamburg, LEO 2018 – living with low literacy.
Base: German-speaking adults (aged 18–64), n=7,192, weighted.

Voting practices: Participation in elections not only depends on voters being able to develop informed political opinions, but also on them being able to read and correctly fill out a ballot paper. Only 62.2% of German citizens with low literacy skills indicated that they always or usually exercised their right to vote. This percentage is much higher for the overall German population, reported at 87.3%. It can thus be seen that adults with low literacy skills make less frequent use of their right to vote.

Reading example for Table 19:
“23.6 percent of people with low reading and writing skills read a newspaper daily. 41.9 percent of the total adult population read a newspaper daily.”

5.5 Literacy and health practices

Various studies have revealed deficits in the health literacy skills of the German population. Recent findings have confirmed a link between health literacy and general literacy skills (Schaefer, Vogt, Berens & Hurrelmann, 2016). The data from this survey means it is now possible to take a closer look at this and other correlations between low literacy skills and the ability to engage with health information and services. The following section highlights some of these practices.

Pharmaceutical information leaflets: Taking medication is an important aspect of preventive health care and disease management. Pharmaceutical packaging can represent an important source of information about correct dosages, particularly when taking new medications. Even if

pharmaceutical information leaflets tend to include complex information, obtaining specific information about drug dosages constitutes a relatively straightforward task.

Nevertheless, clear differences can be seen in the responses to the question of whether or not participants check their medication packaging when taking a new type of medicine to find out when and how often they need to take it. While 68.7% of the total population stated that they did this often or quite often, only 55.8% of people with low literacy said that they frequently or quite frequently checked the packaging leaflet to find out this information. However, it is not possible to make any assertions about the language in which the leaflet is read.

Table 20: Frequent referral to pharmaceutical packaging to check dosage information when taking new medication (“Often” or “Quite often”). Percentages of people sorted by Alpha Level and the national average.

	Alpha 1–3	Alpha 4	Above Alpha 4	Total population
Frequently check dosage instructions in pharmaceutical packaging	55.8%	63.6%	72.6%	68.7%

Source: Universität Hamburg, LEO 2018 – living with low literacy.
Base: German-speaking adults (aged 18–64), n=7,192, weighted.

Health-related paperwork: Filling out health-related paperwork represents another text-based element in the context of disease prevention and health care. 70.7% of the total population stated that they had recently been confronted with forms and paperwork, e.g. when receiving medical care, at hospital, in care facilities or for their health insurance provider. Among people with low literacy, this percentage share was 61.7%. In total, of all the participants who stated that they filled out health-related paperwork, 85.0% said that they completed the forms themselves. Only 58.6% of people with low literacy who had been confronted with such forms said that they dealt

Reading example for Table 20:
“Of those with low reading and writing skills, 55.8 percent frequently or rather frequently take dosage information from the package leaflet if they are unfamiliar with the medication.”

with them without any additional support. Again, it is not possible to make any assertions about the language in which the health-related paperwork was filled out.

Table 21: Completion of health-related paperwork by Alpha Level

Percentage of people within each Alpha Level who stated that they filled out health-related paperwork...	Alpha 1–3	Alpha 4	Above Alpha 4	Total population
... by themselves	58.6%	80.4%	90.2%	85.0%
... with some help sometimes	27.6%	15.7%	8.2%	11.7%
... always with help	13.2%	3.2%	1.1%	2.8%
Not specified	0.6%	0.7%	0.5%	0.5%
Total	100%	100%	100%	100%

Source: Universität Hamburg, LEO 2018 – living with low literacy.
 Base: German-speaking adults (aged 18–64) who stated that they had recently needed to fill out health-related paperwork, n=5,217, weighted.

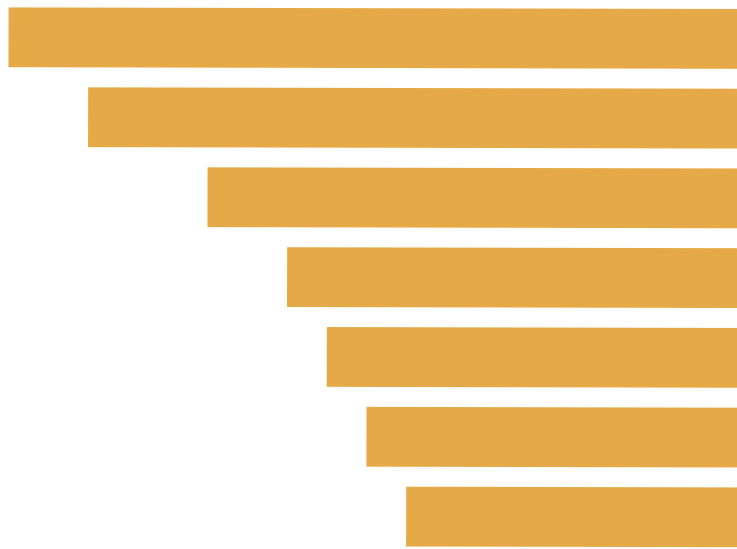
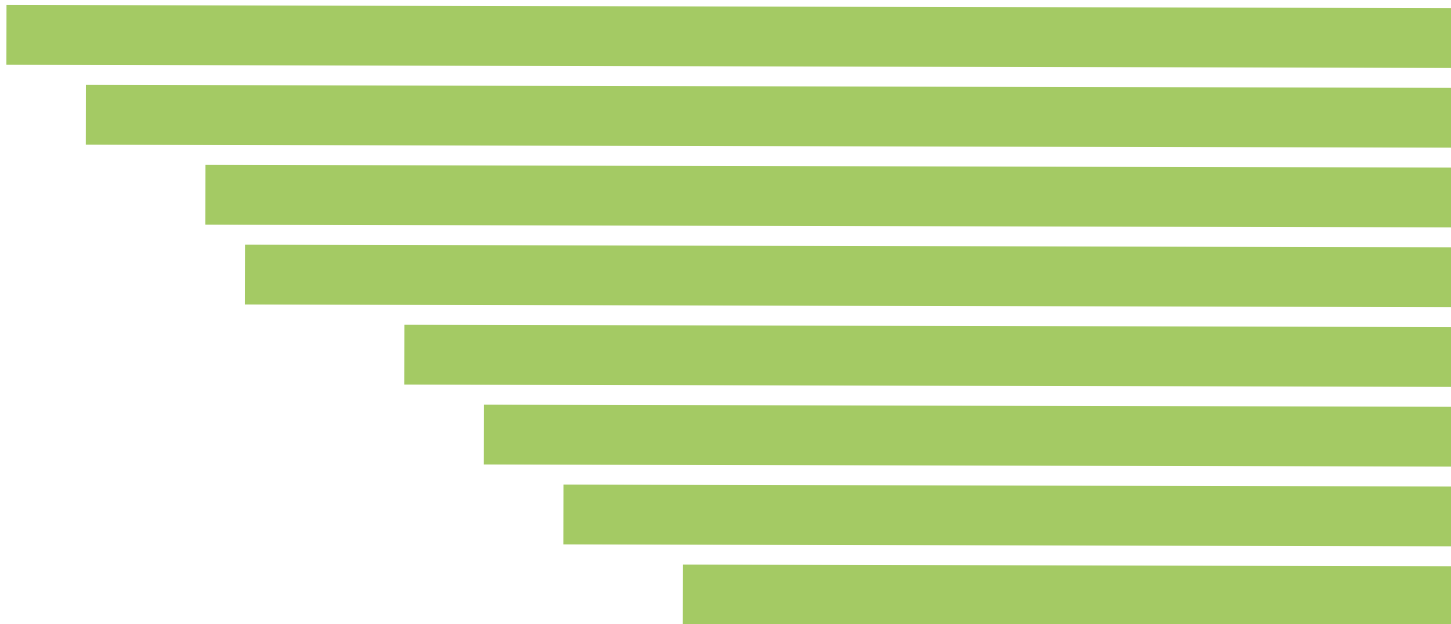
Reading example for Table 21:
 “Of those with low reading and writing skills, 58.6 percent independently deal with health-related forms.”

6 References

- Destatis (Federal Statistical Office) (2017): Berufliche Weiterbildung in Unternehmen 2015 (CVTS 5).
- Dünkel, Nora; Heimler, Julia; Brandt, Hanne; Gogolin, Ingrid (eds.) (2018): Mehrsprachigkeitsentwicklung im Zeitverlauf. Ausgewählte Daten und Ergebnisse. Article authors: Bonnie, Richard J.; Brandt, Hanne; Dünkel, Nora; Feindt, Kathrin; Gabriel, Christoph; Gogolin, Ingrid; Klinger, Thorsten; Krause, Marion; Lagemann, Marina; Lorenz, Eliane; Rahbari, Sharareh; Schnorr, Birger; Siemund, Peter; Usanove, Irina. Hamburg: Mimeo.
- Egloff, Birte (1997): Biographische Muster „funktionaler Analphabeten“. Eine biographieanalytische Studie zu Entstehungsbedingungen und Bewältigungsstrategien von „funktionalem Analphabetismus“. Frankfurt am Main: DIE, German Institute for Adult Education.
- Egloff, Birte; Grosche, Michael; Hubertus, Peter; Rüsseler, Jascha (2011): Funktionaler Analphabetismus im Erwachsenenalter: eine Definition. In: Projektträger im Deutschen Zentrum für Luft- und Raumfahrt e.V. (ed.): Zielgruppen in Alphabetisierung und Grundbildung Erwachsener. Bestimmung, Verortung, Ansprache: wbv, pp. 11–31.
- Gogolin, Ingrid; Krüger-Potratz, Marianne (2012): Sprachenvielfalt – Fakten und Kontroversen. In: Zeitschrift für Grundschulforschung. Journal for Primary Education Research 6 (2), pp. 7–19.
- Grotlüschen, Anke (2011): Zur Auflösung von Mythen. Eine theoretische Verortung des Forschungsansatzes lea. - Literalitätsentwicklung von Arbeitskräften. In: Grotlüschen, A. et al. (eds.): Literalitätsentwicklung von Arbeitskräften. Münster: Waxmann, pp. 12–39.
- Grotlüschen, Anke; Riekmann, Wibke (2011). leo. – Level-One Study: Literacy of adults at the lower rungs of the ladder. Retrieved from <http://blogs.epb.uni-hamburg.de/leo/files/2011/12/leo-Press-brochure15-12-2011.pdf>
- Iller, Carola (2017): Bildungsungleichheit im Erwachsenenalter. In: Meike Sophia Baader und Tatjana Freytag (eds.): Bildung und Ungleichheit in Deutschland. Wiesbaden: Springer Fachmedien Wiesbaden, pp. 427–446.
- Kleinert, Corinna (2014): Bildungsarmut und Weiterbildungsbeteiligung. Nationales Bildungspanel: erste Ergebnisse der Erwachsenenbefragung. In: Alfa-Forum 86, pp. 37–41.
- Mania, Ewelina; Tröster, Monika (2015): Finanzielle Grundbildung. Programme und Angebote planen. Bielefeld: wbv (Perspektive Praxis)
- McElvany, Nele; Becker, Michael; Lüdtke, Oliver (2009): Die Bedeutung familiärer Merkmale für Lesekompetenz, Wortschatz, Lesemotivation und Leseverhalten. In: Zeitschrift für Entwicklungspsychologie und pädagogische Psychologie 41 (3), pp. 121–131. DOI: 10.1026/0049-8637.41.3.121.
- Reichart, Elisabeth; Lux, Thomas; Huntemann, Hella (2019). Volkshochschul-Statistik. 56th edition, working year 2017. DIE survey. Bielefeld: wbv.

- Schaeffer, Doris; Vogt, Dominique; Berens, Eva-Maria; Hurrelmann, Klaus (2016): Gesundheitskompetenz der Bevölkerung in Deutschland: Ergebnisbericht. Bielefeld. Available online: www.uni-bielefeld.de/gesundhw/ag6/downloads/Ergebnisbericht_HLS-GER.pdf, last accessed on 03.12.2018.
- Solga, Heike (2013): Arbeitsplatzanforderungen im internationalen Vergleich. In: ifo Schnelldienst 66 (22), pp. 15–19.
- Steuten, Ulrich (2014): Literalität und Stigma. In: Hessische Blätter für Volksbildung, 2, pp. 125–135.
- Street, Brian (2003): What's "new" in New Literacy Studies? Critical approaches to literacy in theory and practice. In: Current Issues in Comparative Education, 5 (2), pp. 77–91.
- Wicht, Alexandra; Lechner, Clemens; Rammstedt, Beatrice (2018): Wie steht es um die Digitalkompetenz deutscher Erwachsener? Eine empirische Analyse mit dem Programme for the International Assessment of Adult Competencies (PIAAC). In: Berufsverband Deutscher Psychologinnen und Psychologen (ed.): Mensch und Gesellschaft im digitalen Wandel. Psychologie, Gesellschaft, Politik 2018. Berlin: Deutscher Psychologen Verlag, pp. 15–25.





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