FUNCTIONAL ILLITERACY AT REGIONAL LEVEL

Municipality of Enschede

Research carried out by:

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What is functional illiteracy?

Functional illiteracy is a difficult concept to understand, because when is someone functionally illiterate and when are they not? Functional illiteracy can be defined as follows:

“Functional illiteracy is when people have difficulty reading, writing and/or accessing written and digital information, as a result of which their skills are inadequate to enable them to function independently in society, to achieve their goals and to develop themselves as a person. Functional illiteracy is not the same as illiteracy, which refers to people who cannot read or write at all.”

Functional illiteracy is measured in the PIAAC survey. This is an international survey which was conducted in 24 countries, including the Netherlands, in order to measure the skills of adults between the ages of 16 and 65. The main aim of the PIAAC survey is to evaluate people’s literacy and numeracy skills and their ability to solve problems in technology-rich environments. One part of the survey involves a language test in Dutch which identifies respondents’ level of literacy. The scores obtained in this language test determine whether a person is functionally illiterate or otherwise.

Not everyone who is classified as functionally illiterate perceives that they have a problem with reading, writing, numeracy or accessing information, and the majority of people who are classified as functionally illiterate participate in the labour market. However, research shows that people who are functionally illiterate are less often in paid work, are more often unemployed, are less often socially active, have a lower level of income and more often have health problems.

Literacy is very important for the labour market. The requirement for higher levels of qualifications from employers, digitalisation and automation mean that people who are functionally illiterate are at greater risk of (long-term) unemployment and exclusion from the labour market, and, as a result, are more often dependent on benefits. This has implications for social policy.

The aim of this factsheet report is to highlight the scope and characteristics of functional illiteracy at regional and municipal level. Clearly, municipalities differ from each other in terms of demographics and socio-economic structure, both of which are factors which impact on functional illiteracy. Consequently, the nature of the target groups in which there is a high level of functional illiteracy varies between one municipality or region and another. We will investigate here how the different characteristics of functional illiteracy interact with each other and what causes the percentage of people with functional illiteracy to be higher, or indeed lower, than the national average in your municipality.

We would be happy to talk to municipalities with a view to improving the content of the factsheet report and optimising it for the policies which municipalities plan to implement to reduce levels of functional illiteracy.
Enschede  
13% - 16%

Twente  
8% - 11%

Netherlands  
11.9%

Sources: 
ROA

Relevant factors for regional differences in functional illiteracy

As well as an indication of the number of functionally illiterate people in Enschede, policymakers also find it interesting to know what factors lead to differences in functional illiteracy between municipalities and regions. It is known from the national PIAAC survey that four factors play a key role in explaining regional differences:

1. Age
2. Origin
3. Level of education
4. Labour market status

We will investigate relevant regional differences between the municipality of Enschede, the Twente region and the Netherlands as a whole in detail below, on the basis of these factors.

Functional illiteracy in Enschede higher than national average

In 2012, at around 13% - 16% of 16-65 year olds, functional illiteracy in the municipality of Enschede was higher than the national average. The municipality of Enschede also has a relatively high proportion of functionally illiterate people compared with the labour market region of Twente (8% - 11%). At national level, in order to make regional differences between municipalities clearer, a distinction is made between five different categories: low, fairly low, average, fairly high and high. Based on this classification, functional illiteracy in the municipality of Enschede can be classified as 'fairly high'.

Classification of functional illiteracy in the municipality of Enschede

![Classification of functional illiteracy in Enschede](image)

Source: 
Statistics Netherlands (CBS), interpreted by Etil

Average age in Enschede is slightly lower than the national average

The age distribution of 16-64 year olds in the municipality of Enschede is different from that of the labour market region Twente and the Netherlands as a whole. The number of people aged 16-34 in Enschede is slightly higher than the national average, while the number of people aged 35-54 and 55-64 is lower than the national average. The average age of people between the ages of 16 and 64 in Enschede is 38.0 years, while the average age of people between the ages of 16 and 64 in the Netherlands is 40.6 years. This is probably because, as a university city, Enschede has a large number of students. The younger average age of the population should result in a lower percentage of functionally illiterate people in Enschede compared with the Netherlands as a whole. The higher percentage of functionally illiterate people in Enschede has therefore been caused by factors other than differences in the make-up of the population.
Functional illiteracy varies according to country of origin and the country of origin of the parents. First-generation ethnic minorities are more often functionally illiterate than second-generation ethnic minorities because they were born abroad and Dutch is not their mother tongue. Non-Western ethnic minorities are more often functionally illiterate than Western ethnic minorities because the level of education in Western countries is generally higher than in the less developed non-Western countries. There are considerable differences between municipalities in terms of the proportion of ethnic minorities, both in terms of generation and in terms of country of origin. This is mainly because some municipalities are more attractive to international migrants than others. Consequently, in municipalities with a relatively large proportion of ethnic minorities, functional illiteracy is likely to be higher than in municipalities with relatively few ethnic minorities.

The percentage of functionally illiterate people is heavily dependent on the number of years they have been in education. Functional illiteracy is particularly common among those with no basic qualifications (primary school education, vocational qualifications Vmbo and Mbo-1) (see below).

### Table 1. Functional illiteracy by highest level of education achieved

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<th>Level of Education</th>
<th>Proportion of Functionally Illiterate People</th>
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<tr>
<td>LOW: Primary school education</td>
<td>42.3%</td>
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<tr>
<td>Vocational qualifications Vmbo-bb-kb/Mbo-1:</td>
<td>24.4%</td>
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<tr>
<td>Vmbo-gl/tl:</td>
<td>14.0%</td>
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<tr>
<td>AVERAGE: Vocational qualification Mbo-2 or higher:</td>
<td>9.2%</td>
</tr>
<tr>
<td>HIGH: High general secondary education (Havo)/pre-university education (vwo):</td>
<td>2.9%</td>
</tr>
<tr>
<td>Higher education (vocational) (Hbo):</td>
<td>2.3%</td>
</tr>
<tr>
<td>Higher education (research-based) (Wbo):</td>
<td>2.5%</td>
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Source: PIAAC

Enschede has a relatively large proportion of people who left school at the end of compulsory secondary education and few people who went on to higher education

In the municipality of Enschede, the proportion of inhabitants with no basic qualifications among those aged between 16 and 65 is slightly below that of the labour market region of Twente and of the Netherlands as a whole. On the other hand, Enschede and Twente have a relatively large proportion of people who left school at the end of compulsory secondary education. Consequently, Enschede and Twente have a smaller proportion of highly educated people compared with the Netherlands as a whole. Since functional illiteracy mainly occurs among those with a low or average level of education, this is a factor which contributes to the higher percentage of functional illiteracy in Enschede.
In order to be able to function fully and independently on the labour market, adequate skills are essential. The PIAAC survey from 2012 indicates that 9.0% of those in work are functionally illiterate, compared with 16.2% of those who are unemployed. Of those who do not participate in the labour market, 22.3% are functionally illiterate (e.g. people who are unfit for work and carers).

The length of time a person has been unemployed makes a significant difference in terms of the level of functional illiteracy. 10.7% of those who have been unemployed for less than a year are functionally illiterate, while, of those who have been unemployed for more than a year, 24.8% are functionally illiterate.

**Figure 4. People aged between 16 and 65 by labour market status, average 2010-2012**

![Chart showing labor market status distribution](image)

Source: CBS (EBB), interpreted by ROA (NB: the categories may differ from the official CBS definition)

The percentage of functionally illiterate people therefore varies according to labour market status. Consequently, municipalities with a relatively large proportion of people in work and/or students generally have a lower percentage of functionally illiterate people than municipalities with a large proportion of unemployed and inactive people. In the municipality of Enschede and the labour market region of Twente, the percentage of people who are in work is considerably lower than in the Netherlands as a whole. On the other hand, the number of inactive people ('Other') is higher in Enschede and Twente. The proportion of unemployed people among those aged 16 to 65 is also higher. This breakdown of the population by labour market status is an important factor, if not the most important factor, in the higher proportion of people with functional illiteracy in Enschede.

**Figure 5. Percentage of functionally illiterate people by sector in the Netherlands in 2012**

![Pie chart showing sectoral distribution of functionally illiterate people](image)

Source: PIAAC (NB: the PIAAC survey does not give percentages for functional illiteracy for the education or agricultural sectors)

In the construction sector, the industry and energy sectors and the retail & hospitality and healthcare & welfare sectors, a relatively large proportion of employees are functionally illiterate. The percentage of functionally illiterate people in these sectors is above the national average (9.0%).

**Figure 6. Sectoral distribution of employment in 2014**

![Bar chart showing sectoral distribution of employment](image)

Source: LISA, interpreted by Etil

The sectoral distribution of employment in Enschede is roughly in line with that of the Netherlands as a whole. This means that the proportion of those with functional illiteracy among those in work in Enschede is probably in line with the national average.
One target group where functional illiteracy can be tackled is non-working jobseekers and those entitled to unemployment benefit with no basic qualifications. They are relatively easy to reach and are close to the labour market. As a result, it is easier to develop a policy for this target group which focuses on reducing the level of functional illiteracy. However, when interpreting the results, it is important to bear in mind that non-working jobseekers who are not receiving unemployment benefit are generally eligible to receive social assistance through the employee insurance agency UWV, and that in large municipalities the number of people eligible to receive social assistance is higher in absolute and relative terms than it is in small municipalities.

**PEOPLE ENTITLED TO UNEMPLOYMENT BENEFIT**

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<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>&lt;=50 years</td>
<td>56%</td>
<td>44%</td>
</tr>
<tr>
<td>&gt;50 years</td>
<td>44%</td>
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36% (NL: 34%)

**NON-WORKING JOBSEEKERS**

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<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>&lt;=50 years</td>
<td>52%</td>
<td>48%</td>
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<tr>
<td>&gt;50 years</td>
<td>41%</td>
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56% (NL: 50%)

**Figure 7. Proportion of those eligible for unemployment benefit who have no basic qualifications by gender and age**

**Figure 8. Proportion of non-working jobseekers who have no basic qualifications by gender and age**

As regards the number of people eligible to claim unemployment benefit with no basic qualifications in relation to the total number of people aged 16-65, there is very little difference between the municipality of Enschede, the labour market region of Twente and the Netherlands as a whole. As far as the number of non-working jobseekers with no basic qualifications is concerned, the municipality of Enschede has a relatively large proportion of non-working jobseekers with no basic qualifications per 1,000 inhabitants aged between 16 and 65 (68, compared with 47 and 41 for Twente and the Netherlands as a whole respectively). This means that the municipality of Enschede has a relatively large proportion of jobseekers with no basic qualifications who are not working and who are not eligible to claim unemployment benefit. These are probably mainly people who are eligible for social assistance.
People who are functionally illiterate are a difficult target group to reach. One of the challenges is the fact that people who are functionally illiterate do not constitute a uniform group. Some people who are functionally illiterate have very poor literacy skills and are almost illiterate. This group often has problems with learning. In addition, there is a larger group of functionally illiterate individuals who have a slightly higher level of language skills. The majority of these individuals are in paid work and a significant number of them are socially active and can access the digital world. Not everyone in this group automatically has problems with language: many of them feel that their level of language ability is adequate. In that case, the problem will be more how you can motivate these individuals to work on developing their language skills. You may be able to do this, for example, by linking the development of language ability to a specific objective: for example, by making an adequate level of language ability a requirement for participation in a re-training or refresher training course aimed at getting the person into a (new) job. A literacy course will increase their chances of getting a job.

Functional illiteracy is relatively more common among older people, ethnic minorities and people with a low level of education. Some target groups are harder to reach than others. In addition, it is important that the policy is properly targeted. In other words, it should be considered whether it is sensible to develop a policy that focuses on reducing functional illiteracy among older people or whether that policy would be better targeted at a smaller group such as young people with no basic qualifications. The longer people are out of the workplace, the more difficult it is to get them back into it.

How can municipalities tackle functional illiteracy? The approach has two elements:

1 Identifying functional illiteracy and referring the individuals concerned

In the first instance, it is important to identify the locations of people who are functionally illiterate. This will involve organisations which play an identification and referral role, e.g. municipalities, libraries, the UWV, welfare organisations and district teams. A language meter or language indicator can be used to identify functional illiteracy. People who are functionally illiterate can be referred to a suitable provider through a language point in the municipality.

What are the key locations in your municipality, based on the target group?

More young people who are functionally illiterate and more ethnic minorities who are functionally illiterate. Locations: child health centres, early years and pre-school education, community centres. Non-working jobseekers with no basic qualifications. Locations: UWV, Leerwerkloket training advice centres.

Just over half of those who are functionally illiterate in the Netherlands are in paid work. The sectoral distribution of employment in Enschede is very similar to that of the Netherlands as a whole. There is a relatively large proportion of functionally illiterate people in the construction, industry and energy sectors in particular, as there is in the retail & hospitality and healthcare & welfare sectors. Locations: UWV and through employers in these sectors.

2 Improving literacy skills through training or a course

When considering how to tackle functional illiteracy, it should be borne in mind that it makes a big difference whether the people who are functionally illiterate are young or old, ethnic minorities or ethnic Dutch. This requires a differentiated approach, tailored to the situation and the requirements of different target groups. Sometimes, a formal language course delivered by the regional community college (ROC) is the most suitable type of provision, while in other cases an individual online course or support delivered by volunteers is more appropriate. When making a referral, it is important to ensure that the person's level of language ability is established before a language course is selected. It is also important to establish in advance what the aim of the language provision is: to increase or improve language ability, to practise speaking skills or to learn to read and write?

The status of conventional literacy providers (ROCs) is changing as a result of the gradual abolition of the mandatory procurement of services by municipalities. In addition, the importance of libraries and welfare institutions is increasing, as is the role of volunteers (in the case of non-formal and informal provision). In many municipalities, language points are being set up, in libraries or welfare institutions, for example. In addition, libraries, for example, offer language programmes to young children and their parents (bookstart): this also allows access to functionally illiterate parents (integrated approach).
Sources used
The national figures for functional illiteracy are taken from the OECD’s PIAAC survey (Programme for the International Assessment of Adult Competencies), and supplied by Kohnstamm. The estimates of the percentage of people who are functionally illiterate derive from the research carried out by the ROA on behalf of the Reading and Writing Foundation. These estimates will shortly be published by the Foundation in a brochure entitled ‘Regionale spreiding van geletterdheid in Nederland’ (Regional distribution of literacy in the Netherlands). The UWV supplied statistics for the number of people entitled to claim unemployment benefit and non-working jobseekers in May 2015.

Method for determining functional illiteracy at regional level
The international PIAAC survey measured the language ability of adults between the ages of 16 and 65, including those in the Netherlands. Just over 5,000 Dutch respondents took part in the PIAAC survey. If we were to divide the figures up by municipality, many municipalities would have fewer than 20 respondents. This is too small a number to make valid statements about literacy/functional illiteracy.

For this reason, it was decided to use a special technique, known as small area estimators, to obtain more accurate and robust estimates for each area. To improve accuracy even further, we also combined municipalities with fewer than 40,000 inhabitants into municipality clusters in order to guarantee sufficient observations for each municipality.

The small area estimators technique is used by the CBS and other statistical bureaus to obtain more robust estimates for units with little data (e.g. a region or district). Thus, for example, unemployment by municipality is estimated using this technique.

The method exploits the fact that there is a strong correlation between levels of literacy among the population and characteristics such as level of education, age and labour market status. These characteristics are also included in the Enquête Beroepsbevolking (EBB) (workforce survey). This is a very large-scale annual survey involving some 100,000 respondents. We use the EBBs from the period 2010-2012 in order to obtain sufficient observations for smaller municipalities too. This information is used to provide a ‘synthetic’ estimate of literacy by municipality using a model.

As well as this synthetic estimate, an estimate is made on the basis of the PIAAC data (the ‘direct’ estimator). The two estimates together produce an overall estimate of the level of literacy. The outcome is weighted on the basis of the uncertainty in both components. In municipalities with large numbers of PIAAC respondents, the total score is determined more by the directly observed scores of the PIAAC respondents than is the case with municipalities with few PIAAC respondents. The final outcome therefore is a weighted total of ‘real’ and ‘synthetic’ predictors.

Follow-up research
This brochure contains an estimate for the percentage of people who are functionally illiterate in the municipality. In addition, it gives an insight into the extent to which specific risk groups (e.g. those with a low level of education, ethnic minorities or people out of work) are relatively common or relatively uncommon in the municipality. Follow-up research may develop a database which would give all the municipalities in the Netherlands statistics on people who are functionally illiterate, their relationship to the labour market and the extent to which municipalities differ from their labour market region and from the Netherlands as a whole. In addition, the research bureaus plan to develop an online tool for municipalities which would give them an insight into the factors which determine the percentage of people who are functionally illiterate in their municipality, which would enable them to improve the effectiveness of policies designed to reduce the level of functional illiteracy.

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