Guidelines – competence goals for basic skills for adults

Examples of local curricula for reading and writing, numeracy, digital skills and oral skills
# Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>2</td>
</tr>
<tr>
<td>1. Training in basic skills</td>
<td>3</td>
</tr>
<tr>
<td>1.1 Basic skills in the adult population</td>
<td>3</td>
</tr>
<tr>
<td>1.2 Training in basic skills in different arenas</td>
<td>3</td>
</tr>
<tr>
<td>2. Competence goals in basic skills</td>
<td>6</td>
</tr>
<tr>
<td>2.1 About the competence goals</td>
<td>6</td>
</tr>
<tr>
<td>2.2 The Framework as a bridge</td>
<td>6</td>
</tr>
<tr>
<td>3. Adult learning</td>
<td>8</td>
</tr>
<tr>
<td>4. Practice-oriented training</td>
<td>9</td>
</tr>
<tr>
<td>5. Mapping and assessment</td>
<td>10</td>
</tr>
<tr>
<td>5.1 Mapping and assessment of the participants</td>
<td>10</td>
</tr>
<tr>
<td>5.2 Mapping of needs and resources in the workplace</td>
<td>11</td>
</tr>
<tr>
<td>6. Reading and writing as a basic skill</td>
<td>12</td>
</tr>
<tr>
<td>6.1 Introduction</td>
<td>12</td>
</tr>
<tr>
<td>6.2 What are reading and writing?</td>
<td>12</td>
</tr>
<tr>
<td>6.3 Development of the skill</td>
<td>13</td>
</tr>
<tr>
<td>6.4 Teaching programme</td>
<td>15</td>
</tr>
<tr>
<td>7. Numeracy as a basic skill</td>
<td>23</td>
</tr>
<tr>
<td>7.1 Introduction</td>
<td>23</td>
</tr>
<tr>
<td>7.2 What is numeracy?</td>
<td>23</td>
</tr>
<tr>
<td>7.3 Development of the skill</td>
<td>24</td>
</tr>
<tr>
<td>7.4 Teaching programme</td>
<td>25</td>
</tr>
<tr>
<td>7.5 Teaching programme over several levels</td>
<td>30</td>
</tr>
<tr>
<td>8. Digital skills as a basic skill</td>
<td>33</td>
</tr>
<tr>
<td>8.1 Introduction</td>
<td>33</td>
</tr>
<tr>
<td>8.2 What are digital skills?</td>
<td>33</td>
</tr>
<tr>
<td>8.3 Development of the skill</td>
<td>34</td>
</tr>
<tr>
<td>8.4 Teaching programme</td>
<td>35</td>
</tr>
<tr>
<td>8.5 Teaching programme over several levels</td>
<td>40</td>
</tr>
<tr>
<td>9. Oral skills as a basic skill</td>
<td>42</td>
</tr>
<tr>
<td>9.1 Introduction</td>
<td>42</td>
</tr>
<tr>
<td>9.2 What are oral skills?</td>
<td>42</td>
</tr>
<tr>
<td>9.3 Development of the skill</td>
<td>43</td>
</tr>
<tr>
<td>9.4 Teaching programme</td>
<td>44</td>
</tr>
<tr>
<td>9.5 Teaching programme over several levels</td>
<td>51</td>
</tr>
<tr>
<td>References</td>
<td>54</td>
</tr>
</tbody>
</table>
Basic skills are a term which covers the ability to read, write and perform arithmetical calculations, and the possession of
digital and oral skills. Adequate basic skills are crucial to cope with the challenges of living and working in today’s society.
Basic skills are also a prerequisite for learning and competence development.

The objective of training in basic skills must be that participants can use what they learn, for their benefit and that of the
labour market and society. This requires that the training content and ways of working should be motivating and effective for
adults. The training may take place in different arenas, but must be adapted to everyday adult life and contextualized in a
way that is found to be relevant and useful.

International studies show that a large proportion of the adult population has weaker basic skills than are required by society.
However, strengthening basic skills is important not only for those with weak skills; it may be relevant for all those who change
roles in relation to their employment and to life in general, and who need new forms of communication and new information
(Foster, 2005).

Vox has prepared the book entitled Guidelines – competence goals for basic skills for adults. Examples of local curricula in
reading and writing, numeracy, digital skills and oral skills as a tool to develop a training scheme adapted for adults. Based
on the competence goals, these guidelines show how to plan and facilitate training in basic skills for adults. The introductory
chapters describe the field of training in basic skills for adults. Chapters 6—9 are devoted to each of the skills and contain a
short description of the skill and specific examples of training programmes. The guidelines are intended to support all those
involved in planning and implementation of training in basic skills for adults.1

---

1 Parts of these guidelines are based on the Guidelines for competence objectives in digital competence, numeracy, reading and writing, and oral communication. Vox 2009.
Training in basic skills

1.1 Basic skills in the adult population

Most adults in Norway believe that they have adequate skills in reading, writing and numeracy (Størset, 2013b). The large-scale OECD study of adult skills from 2013, PIAAC (Programme for the International Assessment of Adult Competencies), shows that Norway scores above the OECD average for reading, numeracy and problem-solving in an ICT environment (Bjørkeng, 2013). Nearly 170 000 adults in 23 countries, whereof 5 000 Norwegians, were interviewed and tested in the study. Norway was number six in reading skills and numerical understanding, and number four in problem-solving in an ICT environment. Even though the Norwegian average is high, there are a number of groups who score significantly lower. In addition, the PIAAC results show that the skills in the adult population have not improved in the past few years.²

PIAAC measured reading comprehension and numeracy skills on a scale from 1 to 5, with 1 being the lowest. The results show that approximately 400 000 adults have a reading level of 1 or lower. Readers at level 1 can read relatively short texts to find a simple piece of information in the text which is identical or synonymous with what is being asked for. Just under 500 000 adults had a numeracy level of 1 or lower. Level 1 means being able to perform elementary mathematical operations in known contexts in which the maths is clearly presented, but not being able to master more complex presentations in which the maths is less obvious.

Problem-solving in an ICT environment was measured over three levels, and here level 2 was the most common skills level. Persons whose skills are at this level can manage tasks that have concrete objectives and that involve a small number of applications and several steps. They have a lower degree of the strategic competence required to understand complex digital information and to use it to draw conclusions and communicate independently.

Those who scored low are characterized by being in higher or lower age groups and being neither in work or education. Young adults are clearly below the OECD average in reading skills (Bjørkeng, 2013). There are associations between test scores and income, level of education, participation in democratic processes and attending continuing and further education in the past few years.

1.2 Training in basic skills in different arenas

Training in basic skills takes place in numerous contexts, run by different providers and often in combination with other training. Adult education offered by municipalities provides training in basic skills for adults who require it. This takes place both as part of primary and lower secondary education leading to an examination, and through basic skills training alone. Training in basic skills is provided at County Council level through adult upper secondary education. This also encompasses the training that takes place within the Norwegian Correctional Service and in institutions.

² The results are comparable to the two previous studies IALS (1998) and ALL (2003).
Through the *Programme for basic competence in working life* (BKA), private and public enterprises can apply to Vox for funding to make a survey of needs and provide training in basic skills in the context of the workplace. This type of training is provided in connection with re-employment and labour market measures. The educational associations’ member organizations also provide training in basic skills, both through BKA and other services. Norwegian language training for adult immigrants includes basic ICT training at all levels. Participants with little or no schooling receive training in basic reading and writing.

All these providers can opt to use *Competence goals in basic skills* as a resource in planning training courses. For courses run by BKA, use of the competence goals is obligatory.

**Training in the Programme for basic competence in working life**

Since 2006 the *Programme for basic competence in working life* (BKA)\(^3\) has been one of the government’s main planks to enhance adults’ basic skills (Ministry of Education and Research, 2012). From 2006 to 2011 approximately 25,000 people had undergone training in basic skills under the auspices of BKA (Proba social analysis, 2012).

BKA is part of the government’s competence policy. The purpose of the scheme is to prevent employees from dropping out of working life because they lack basic skills. The target group for BKA is adult employees with a limited formal education who need to improve their basic skills in reading, writing and numeracy and their digital skills for the workplace. Training in reading and writing has been stated as the main objective of most applications from the beginning (Proba social analysis, 2012).

BKA course content should as far as possible be linked to daily working life, and training should preferably be located in the workplace. In addition, training should be adapted to the needs, culture and work situation of the enterprise.

Investment in training in basic skills should contribute to a better learning effect and learning outcome for other training measures. It may therefore be advantageous to link learning to other competence measures in the individual enterprise, such as craft certificates or other training relevant to working life. It should at the same time be offered to employees who only need to strengthen their basic skills in order to cope better with their everyday work.

Training under the BKA programme will be based on the *Competence goals in basic skills for adults*.

**Training in the municipalities**

Adults who require it have the right to free training in basic skills in the municipalities. This right is enshrined in the Education Act Section 4A-1:

---

**FACTS**

*Section 4 A-1 The right to primary and lower secondary education for adults*

Persons above compulsory school age who require primary and lower secondary education have the right to such education\(^4\) unless they have the right to upper secondary education and training pursuant to section 3-1. The right to education normally includes the subjects required for the certificate of completed primary and lower secondary education for adults. The education shall be adapted to individual needs. The training and educational material is free of charge.

---

\(^3\) For more about BKA, see http://www.vox.no.

\(^4\) A supplementary condition is that the adult must have legal entitlement to residence in Norway.
Thus, according to the Education Act Section 4A-1, adults who require it have a right to primary and lower secondary education. This entitlement applies both to adults who do not have the certificate of completed primary and lower secondary education, and adults who have previously attained the certificate but who still have a need for more training. The right to primary and lower secondary education normally includes the subjects required for the certificate of completed primary and lower secondary education for adults. Adults can nevertheless choose whether to take full primary and lower secondary education with a view to attaining the certificate, or only to take education in parts of particular subjects. The education can also be limited to basic skills according to wishes and needs, and includes training in digital skills (Ministry of Education and Research, 2013).

The training shall be adapted to the participants’ total informal and non-formal qualifications, their life situation and particular needs. Resolutions on training in basic skills must be passed pursuant to the Education Act Section 4A-1. According to Section 4A-15 the applicant does not require competence in Norwegian to a particular level to have the right to primary and lower secondary education.

The schools are responsible for selecting content and ways of working that can best fulfil the competence objectives of the curriculum for the individual student. (Directorate for Education and Training, 2009). When working to develop local curricula it is important to take account of the participants’ needs and the objective of the training, in order to make this more effective. The participants must be involved in this process in order to increase their joint responsibility and thereby reinforce the opportunity to achieve their goals.

**Competence goals in basic skills**

The competence goals are examples of local curricula in which the basic skills included in the competence objectives of the Knowledge Reform are plucked from the subjects. The competence goals may therefore be a resource for teachers wanting help to develop local curricula in basic skills for adults receiving training pursuant to Section 4A-1. The competence goals may be used directly or further adapted to local conditions.

---

5 Primary and lower secondary education may contain Norwegian language training, including special language training in Norwegian as a subject, if this is necessary for adults to have an acceptable outcome from the training. (Directorate for Education and Training, circular Udir – 3 – 2012).
Competence goals in basic skills

2.1 About the competence goals

*Competence goals for basic skills: Examples of local curricula in reading and writing, numeracy, digital skills and oral skills* is a revised version of *Competence objectives in basic skills for adults*, which Vox has published previously. In the new version, the term “competence objectives” has been changed to “competence goals”. This was to avoid confusion with the competence objectives of the curricula in the Knowledge Reform. “Examples of local curricula” was added to the title to clarify how the competence goals relate to the curricula in the Knowledge Reform.

One of the purposes of revising the Knowledge Reform was to clarify the basic skills in the subjects. A separate Framework for basic skills (Directorate for Education and Training, 2012) was therefore developed by the Directorate for Education and Training for use in carrying out the revision. This framework describes the basic skills in the Knowledge Reform across subjects and years of schooling and independently of the context in which they are being taught. The framework has therefore been very helpful in working to develop and revise the competence goals for Vox, for which the basic skills shall not be connected with subjects in primary and lower secondary school. The competence goals are based on the curricula in the Knowledge Reform and the Directorate for Education and Training’s framework for basic skills.

*Competence goals for basic skills* describes the development of the basic skills over three levels: level 1–2, level 3 and level 4. The levels indicate the first four of a total of five levels in the Framework for basic skills. In addition, the individual skills are divided into different areas. Adults often have diverging skills, and many will be stronger in some areas than others. The participants may therefore require training at different levels in the different areas. What is most important is that each participant has the opportunity to work with the competence goals that correspond to the challenges that are relevant to him or her.

Following on from its work with the competence goals, Vox has formulated examples of how adults use the skills in practice. The examples are derived from different arenas and situations in everyday adult life. They are intended to provide ideas and inspire the teacher, and local examples must be found that are relevant to participants themselves.

2.2 The Framework as a bridge

It may be appropriate for those who teach the basic skills pursuant to Section 4A-1 of the Education Act to acquaint themselves with how *Competence goals for basic skills* relate to the competence objectives in the Knowledge Reform, and how the Framework can function as a bridge between these two sets of objectives. This makes it easier to ensure that adaptations to local and individual needs are within the parameters of the competence objectives in the Knowledge Reform curricula.
In the Knowledge Reform the basic skills are integrated into the competence objectives for the various subjects. For example, in Norwegian and social sciences the following competence objectives encompass objectives for reading:

- Read different types of text in Norwegian bokmål and Norwegian nynorsk with fluency, contextualization and understanding (LK06 Norwegian Curriculum, fourth year of schooling)

- Find information about social-science related topics from different adapted sources, assess whether the information is useful, and use it to find answers to subject-related questions (LK06 Social Science Curriculum, fourth year of schooling)

This is reflected as follows in the Framework for basic skills under “ability to read as a basic skill” at level 2:

Read elementary texts with fluency and perseverance. Find and read texts on the Internet. Ask questions about the text. Be able to talk about the content.

In the competence goals for reading and writing, this is presented in the following way:

- Read and understand brief texts using frequently occurring and familiar words (level 1–2)

- Make use of adapted electronic reading and writing tools (level 1–2)

In the Vox publication Everyday reading and writing (page 5), these competence goals are specified as follows:

- Read simple information texts about children’s leisure activities (level 1–2)

- Read short emails from the child’s class teacher (level 1–2)
Motivation can be just as important for the learning process as individual abilities and knowledge. Daily life for adults is characterized by many, often conflicting, demands, and it can be challenging to motivate adults to participate in training long enough to achieve a genuine development. Adults can be motivated by experiencing that the training is of immediate use to them in their daily lives. It can also be motivating for them to recognize themselves in the issues, the material and the topics addressed.

It is important that the conditions for training in basic skills are created in a way that motivates adults. The sense of mastery is important, and this can be reinforced by adapting challenges in the learning situation to the individual, and by working with competence goals that are realistic and adapted to the wishes of the participant. It is also important to address attitudes to the skills. Participants’ attitudes to the basic skills have an impact on how they master individual skills, and on whether they are interested in improving these (Bynner and Parsons, 2006).

Individual differences increase with age in terms of how much time is needed to acquire theoretical and practical knowledge. At the same time, increased age provides a greater wealth of experience, which enables a more versatile and nuanced understanding and gives adults an expanded framework of reference with which to associate new learning (Grendstad, 2007). For example, Illeris (2003) claims that adults can also develop new cognitive skills that complement the more concrete thinking associated with childhood. The training instructor should therefore actively use the experiences and reflections of adults as a basis for new learning. It becomes important to create a climate in which the participants have to involve themselves as co-creators and as responsible in the learning process (Wahlgren, 2010). Space for reflection and dialogue about individual goals is therefore a major aspect of working with basic skills. Dialogue with participants is also part of showing respect for them as adults.

Goal-oriented work is required to succeed with the training provision for those with the greatest need for it. In the PIAAC report by the OECD, Norway is highlighted as the country where those with the weakest reading skills have the highest participation in training (OECD, 2013). However, generally they participate in training less than the rest of the population. For many, the quality of the training provision and adaptation to their own life situation will determine whether they can or will participate in training. Other factors that can influence adult participation in training are sufficient information about the training on offer, suitability of place and time, and no resulting economic loss from participation (Vox, 2010).

Adults with poor experiences from their schooldays will benefit if the training is felt to be markedly different from their previous schooling. It is also important that what they work with during the training is felt to be a part of adult life. There have been good experiences of providing training in libraries and of combining classroom training with other activities and arenas for learning.

Adults with weak reading skills may in some cases find it uncomfortable to reveal that they have a need for training. It may be advantageous for this group for the training to take place in a secluded location, particularly if it is being conducted at the participants’ workplace. Other adults are motivated by the training being very visible, but in that case it may be important for those around them to be informed about its objective and background.
Practice-oriented training is training which is linked to the participants’ own reality at work and in everyday life. It is based on issues which the participants find relevant, and focuses on strategies that are applicable to the daily life of each individual. Practice-oriented training can have a motivating effect since the training is concrete and practically oriented, and makes the learning content easier to understand and use. Practice-oriented training is based on authentic material, issues and examples from participants’ everyday lives, and this is used in ways that are as close to real life as possible. It is also important for the participants to feel that the issues they are working with are of significance. Studies demonstrate that this increases the probability of participants using and maintaining the skills after completion of the course. (Jacobson, 2003).

In order for the participants to make use of new skills beyond the training, they must trust that this is possible. Wahlgren and Aarkrog (2012) claim that adults do not necessarily transfer what they have learned in the training situation into practical use in other arenas. Nor is it always sufficient for the teacher to talk to the participants about the transferability of what they learn. Many participants need specific examples of skills transfer, exercises in thinking of opportunities for transfer, and the possibility to test their skills in different practical situations.

It may be appropriate to create courses that are linked to a limited arena or subject area, and that group together participants with similar interests and goals. Personal finances are something that many people are concerned with, and the topic is well suited for practical training in numeracy. It is also possible to provide training in all the basic skills by linking training to cooking, for example by involving a chef or conducting the training in the school cafeteria. Use of everyday digital skills, filling out documents issued by public bodies and so on may also be well suited as a basis for training.

Many parents experience that much has changed since they attended school themselves, and they may therefore be interested in courses that will better equip them to follow up on their children’s homework. Focusing on their children’s schooling may also make it easier for many adults to participate in training themselves.

Training in basic skills can support entry into the labour market. The training can be based around occupations that the participants may envision for themselves, or wish to return to. Assignments and subject areas related to kindergarten or cleaning work, or work as a driver or carpenter, may be motivating and meaningful to work with for those who would like jobs within these sectors. This type of training will also help prepare some individuals to take the craft certificate, as this provides a better basis to complete occupational training afterwards.

If the participants are working or combining training with work placement, there is much that can be done to make use of their time at work for maximum learning and practice of the skills. It is important that the workplace and work supervisor are involved and made responsible for facilitating learning in working hours, and that the participant is challenged at the correct level. In addition, if there is involvement at all levels of the enterprise, this will help ensure that work with basic skills is prioritized in pressurized work periods, and that the necessary resources are allocated to this. The attitude of supervisors and colleagues to the training measures may also have an effect on the participants’ motivation and attendance.
5 Mapping and assessment

5.1 Mapping and assessment of the participants

Adults who present for training may have very different backgrounds, and the preconditions for achieving a full outcome from the training will vary. The way in which adults reason and find solutions to tasks is characterized by how they have learned to do this during adolescence. It is therefore important for the teacher to become familiar with the strategies used by the participants, and the experiences they have with previous schooling. The training in basic skills should build upon the resources that the adults bring with them.

Mapping and assessment must be a continuous, interactive process in which teachers and participants ascertain the participants’ learning needs at different times. The objective is to obtain a basis for adapted training and for the teacher and participant to receive regular feedback on the learning process. The training will be experienced as motivating and useful if the participants’ learning needs are specified and made clear. This will also help the participant to work in a more goal-oriented manner during the training.

The methods of mapping to be used depend on, for example, the purpose of the mapping, the background of the participants and the assumed skills level. In addition the amount of time available must be assessed, and where the mapping is to take place. If time is short, it is possible to start with a simple screening in order to gain an impression of who may need training. For instance, this may be relevant in judging the training requirement for employees in a large enterprise. Separate screening tests are available for this type of use. Where a need for training is revealed, a further, more thorough mapping may be carried out for each individual.

It is important to be aware that not everyone wishes to have their skills mapped. This applies particularly in cases where people have negative experiences from previous schooling or generally poor self-confidence. There can also be many other reasons why standardized mapping and testing may be inappropriate, and this must be taken into account when selecting the form of mapping. Perhaps a dialogue-based mapping will be most appropriate, focusing on the wishes and experiences of the participants. Observation of how students resolve various challenges, and what assists them to overcome problems that arise, can also provide much information to the teacher. Regardless of which form of mapping is chosen, it is important to build up the participants’ confidence first, and then choose the time and form that the mapping will take in dialogue with them.

In mapping participants from immigrant communities, it is important to take account of their background with respect to language and experience. Mapping tests can give misleading results by not distinguishing sufficiently between Norwegian language skills, basic skills and cultural conditions. Weak results in mapping tests in reading, for example, may be attributed to the participants having failed to correctly understand the assignment or having insufficient skills in Norwegian to communicate their ability. In numeracy, weak mapping results may be due to participants having other systems of counting or other ways of apportioning plots of land. An example of this, according to Bishop (1997), is that in Papua New Guinea and Oceania alone there are more than 2,000 different methods of counting.
The greater the cultural and linguistic barriers, the more important it is to facilitate the opportunity for participants to display their existing knowledge. Although the form this takes may be unusual, the teacher will gain an insight into how the student reasons and proceeds in order to resolve various challenges, and this may provide a sound basis for facilitating the training. It may also be useful to map what prevents participants from expressing their actual abilities. Good training therefore requires an extra effort to acquire an overview of all the factors that will impact on the benefit derived from the training.

5.2 Mapping of needs and resources in the workplace

When the training is linked to the daily working life of the participants, it should as a main rule be conducted in the workplace so that the training context reflects the work situation. If this is not possible, the training should nonetheless be linked to the participants’ work through active use of practical examples and authentic material.

The teacher can derive a great deal from observing the participants’ workplace, both in advance of and during the course. Texts and assignments from the workplace are useful and motivating to work with, and by observing the communication context in which they are used, the teacher obtains a large amount of crucial information for use in the training (Winsnes, 2009). However, in some workplaces it may be difficult to identify what is relevant. The requirements for basic skills are not always visible, and it may be difficult to discover how different tasks are dealt with. Observation can therefore usefully be combined with conversations with immediate supervisors about the different work processes. If an overview is prepared of what work tasks the participant has, or can perform, and what basic skills are needed for these, the employers, participants and teachers can obtain a picture of the needs and opportunities for training. The participants can contribute by bringing with them to the training new issues that they themselves encounter. In this way, continuous mapping and dialogue with the workplace can help to make the training more goal-oriented and relevant, and lead to tangible results for the enterprise and the participants.8

---

8 For more information about this type of mapping, see the booklet “Mapping for practice-oriented training in the workplace” at vox.no.
6 Reading and writing as a basic skill

6.1 Introduction

The PIAAC study shows that approximately 400,000 adults in Norway have low-level reading skills (Bjørkeng, 2013). Simultaneously, working life in Norway is placing ever-greater demands on the literacy skills of employees through increased requirements for restructuring, certification, documentation of work processes and HES. Adults are also dependent on literacy skills to master their roles as consumers, active members of society and parents.

Two-thirds of the population consider literacy skills to be highly important. Altogether 72 per cent responded in the same survey that it would be embarrassing to tell someone that they did not master these skills (Størset, 2013b). In combination, this says something about the significance of good training schemes in reading and writing, and the challenges associated with reaching out to those who need these most.

6.2 What are reading and writing?

**FACTS**

Reading means to create meaning from text in the widest sense. Reading gives insight into other people’s experience, opinion and knowledge, independent of time and place. The reading of texts on screen and paper is a prerequisite for lifelong learning and for active participation in civic life.

To read involves engaging in texts, comprehending, applying what is read and reflecting on this. Texts include everything that can be read in different media, including illustrations, graphs, symbols or other modes of expression. Knowledge about what characterizes different types of texts and their function is an important part of reading as a basic skill.

Writing involves expressing oneself understandably and appropriately about different topics and communicating with others in the written mode. Writing is also a tool for developing one’s own thoughts in the learning process. Writing comprehensibly and appropriately means developing and coordinating different partial skills. This includes being able to plan, construct, and revise texts relevant to content, purpose and audience.

Mastering writing is a prerequisite for lifelong learning and for active and critical participation in civic and social life.

*Framework for Basic Skills* (Directorate for Education and Training, 2012)

The competence goals for reading and writing are subdivided into the areas of reading and writing strategies, reading and comprehension, and writing and communicating.

The area of *reading and writing strategies* contains competence goals for processes that are the key to the development of reading and writing skills. Achieving these competence goals is an important pre-
requisite for achieving the competence goals for the areas of **reading and comprehension** and **writing and communicating**.

The competence goals for **reading and comprehension** concern how adults at different levels are expected to extract information from texts, draw conclusions based on the content, relate to the texts critically and independently and make use of the content based on their own needs.

The area of **writing and communicating** encompasses objectives for how adults at different levels plan and process text, how they formulate the actual texts, how they communicate through writing, and how writing is used for reflection and organization in their own lives.

The skills of reading and writing are in practice interdependent; for example, it is necessary to be able to read and understand a form to be able to fill it out. However, by making a distinction between reading and writing in the competence goals, it can be ensured that both skills receive attention in the training situation.

Following on from the competence goals, examples have been prepared entitled “Everyday reading and writing”. These examples link the competence goals to different arenas and situations in everyday adult life, and provide a picture of how the skills can be applied in practice. The examples are intended to provide ideas and inspire the teacher, and the individual teacher is expected to come up with examples that are relevant for his or her students.

### 6.3 Development of the skill

Reading and writing occur in a social context and will always be closely interwoven in this. Adults’ reading and writing skills will be developed through an interaction with the changes occurring in a person’s life and with the changes in the demands placed upon them by society as a whole.

---

**FACTS**

**How is reading developed?**

The development of the functional ability to read is an interaction between processes of comprehension and processes of decoding. Basic reading instruction involves mastering the reading of screen and paper texts with concentration, endurance, fluency and coherence. The functional ability to read is developed through knowledge about and experience with different subject-related texts. This involves being able to deal with a wide variety of text types and relate critically to different types of information and increasingly complex reading tasks.

Reading development requires using appropriate reading strategies to find and process information. Functional reading is therefore characterized by the use of reading strategies adapted to purpose and text type.
How is the writing skill developed?

Basic writing instruction involves developing orthography, a functional handwriting and use of keyboard, in addition to planning and writing simple, clear texts for different purposes. The development of functional writing is closely connected to subject-related development. Writing is a tool for learning in all subjects, and parallel with and through the development of the writing skill, increasingly more sophisticated and subject-related skills are developed.

Framework for Basic Skills (Directorate for Education and Training, 2012)

The competence goals for reading and writing provide an outline for development of skills over three levels.

An ability to read and write at Level 1-2 includes reading and writing brief and familiar texts that one encounters frequently. Some support may be needed when reading and writing in new situations.

An ability to read and write at Level 3 includes reading and writing comprehensible texts. One relates actively to written information and has strategies for refinement of these skills. One can use reading and writing in new situations, for learning and for solving some challenges in everyday life.

An ability to read and write at level 4 includes mastery of formal requirements for a diversity of texts. One reads and writes in an independent, critical and flexible manner and selects strategies on the basis of settings and needs.

The competence goals for reading and writing describe a progression to a stage where these can be used functionally in different social arenas. The objectives for each participant’s training must be adapted to his/her own prerequisites and needs, and to the requirements of the surrounding environment.

The reading and writing skills of students depend on the particular experiences they have and what texts and topics they normally use in their daily lives. Adults’ reading and writing skills are therefore frequently divergent. It is also frequently easier to read or write texts with a familiar content than those which deal with an unknown topic. Studies focusing on the acquisition of reading and writing skills have also demonstrated that the learning acquisition process is non-linear, but more akin to an “ebb and flow movement” (Kulbrandstad, 2003).

The competence goals for reading and writing are designed based on experience of how reading and writing skills are developed in the mother tongue. In addition to having to master the reading and writing process itself, minority language speakers may encounter challenges related to forms of teaching, content of texts, genres, words, terminology and sounds in the Norwegian language. The participants’ understanding of words and terminology that are used in the training and in texts will have an impact on the benefit they derive from the training itself. Many will also need more time and other methods to achieve the objectives. It is therefore important that the effort to help the students achieve the competence goals takes its cue from their standpoint in terms of language and experience.

Particularly in terms of developing reading and writing strategies, it will be necessary to use some other strategies to attain good progress in reading and writing for minority language speakers. It may also be an option to work with the strategies in a different sequence than the one which follows from the levels in the competence goals. The key aspect is to work with the reading and writing strategies that are most effective for the participants at any given time.
### 6.4 Teaching programme

In the following we will present some teaching programmes that are linked to the competence goals for reading and writing. They show how working with the competence goals can be made specific and relevant by taking situations from different areas of adult life as a starting point.

#### Teaching programme for level 1–2

**Competence goal:** to use basic strategies to decode and spell key words in everyday situations

**Competence goal:** to find explicitly stated information in simple written material

The fact that authentic everyday texts are often difficult, especially for participants who are to progress to level 1–2, represents a challenge with regard to training in reading. Nevertheless, it is important to use authentic texts at this level also. For participants who are working, the training can be linked to a simple text from the participants’ workplace which they need to be able to read. For example, this could be a concise, bullet-point list of instructions for a familiar work task, simple messages, lists or leaflets. The participants themselves or the employer can propose texts that are relevant and useful to read in order to cope with the work.\(^9\) This example is based on a work description in the cleaning sector.

#### Example text

**Recommended cleaning frequencies**

**Schools**

<table>
<thead>
<tr>
<th>Item</th>
<th>Work operation</th>
<th>How often</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whiteboard with pen shelf</td>
<td>Clean with eraser</td>
<td>Daily</td>
</tr>
<tr>
<td>Table surfaces/desks</td>
<td>Remove marks/wipe</td>
<td>Weekly</td>
</tr>
<tr>
<td>Window frames</td>
<td>Wipe</td>
<td>Weekly</td>
</tr>
<tr>
<td>Free-standing horizontal surfaces</td>
<td>Wipe</td>
<td>Weekly</td>
</tr>
<tr>
<td>Marks on doors, doorframes, walls and glass</td>
<td>Remove marks/dry</td>
<td>Every second day</td>
</tr>
<tr>
<td>Fuseboxes, heating elements</td>
<td>Wipe</td>
<td>Weekly</td>
</tr>
<tr>
<td>Telephones</td>
<td>Wipe</td>
<td>Weekly</td>
</tr>
<tr>
<td>Stair handrails/railings</td>
<td>Wipe</td>
<td>Weekly</td>
</tr>
<tr>
<td>Sanitary ware</td>
<td>Clean</td>
<td>Daily inspection/cleaning</td>
</tr>
<tr>
<td>Mirror</td>
<td>Remove marks/polish</td>
<td>Daily/weekly</td>
</tr>
<tr>
<td>Soap dispenser, paper</td>
<td>Check and refill</td>
<td>Daily</td>
</tr>
<tr>
<td>Soap dispenser, paper</td>
<td>Wipe</td>
<td>Every second day</td>
</tr>
<tr>
<td>Pictures/lamps</td>
<td>Wipe</td>
<td>Monthly</td>
</tr>
<tr>
<td>Chairs not used in connection with eating</td>
<td>Wipe</td>
<td>Weekly</td>
</tr>
<tr>
<td>Chair legs/table legs</td>
<td>Wipe</td>
<td>Twice per month</td>
</tr>
<tr>
<td>Chair/sofa upholstery</td>
<td>Vacuum</td>
<td>Once per month</td>
</tr>
<tr>
<td>Vertical flat surfaces/bookcases</td>
<td>Wipe</td>
<td>Once per month</td>
</tr>
<tr>
<td>Skirting boards/electrical sockets</td>
<td>Wipe</td>
<td>Twice per month</td>
</tr>
<tr>
<td>Bookcases with free shelving</td>
<td>Wipe</td>
<td>Once per month</td>
</tr>
<tr>
<td>High vertical services</td>
<td>Wipe</td>
<td>Every second month/as required</td>
</tr>
</tbody>
</table>

Even though the text is taken from the participants’ workplace, it does not necessarily mean that everyone is familiar with it or knows what purpose it fulfils, and they may read it with varying degrees of precision. The participants start by discussing where and when the text is used, why they are reading it, what it is about, who must read it, and who has written it. An important prerequisite for

\(^9\) See *Texts from the workplace in training* at vox.no.
being able to read and understand the text, and find specific information in it, is to apprehend its genre and function, in other words the purpose of the text and who the sender and the receiver are, as well as to recognize how the information in the text is organized. In order to find and understand the meaning of the text, it is also important that the students know the status of the instructions: whether they describe something that can be done, or something that must be done, and the possible consequences of not following the instructions. If the students know the purpose of the text and who is the sender and the receiver, they can more easily decode and understand what they are reading, and thereby find the essential information and know what to do with it.

After this, the teacher can make the participants familiar with the text by reading it aloud, or having them try to read it together, without necessarily reading it word for word. The participants can mark difficult words in the text, and then work with them further.

To find the key information in this particular text, which is how and how frequently items should be cleaned, the participants must learn to read the table format. They must recognize what is a heading and a subheading, and understand the principle of reading the table vertically and horizontally. It may be necessary to point “the way” to the important information by showing the connection between the general heading, what is specified in the subheading, the column heading and the specific work description in the table. To teach how the table should be read, the teacher can reveal what information is contained in the three columns. In addition the participants must see how, by reading horizontally, they can find the exact information they need in order to know what job tasks have to be done, and how often. The participants at this level may need to learn strategies for coping with these types of texts in their daily lives, and it may therefore be useful to discuss what difficulties they have in reading the text, and what they can do to resolve these.

Based on the job description, the participants can work with simple, basic reading strategies for decoding. Some read slowly or using inappropriate strategies, for example by basing too much of their reading comprehension on guessing what is written from the context. They may become more accurate readers by placing more attention on the sound and spelling structure of words, so that they learn to recognize words more rapidly and accurately. The words that they have marked in the text on first reading it can form the basis for practising reading complex, non-phonetic and long words. It is essential for some participants to spend plenty of time on exercises where they practise appropriate strategies for reading single words, so that they gain greater fluency in reading. Specific examples of this may be found in When reading is difficult. Training in reading at basic levels for youth and adults (Refsahl, 2012).

**Teaching programme for level 1–2**

*Competence goal: to use basic strategies to decode and spell key words in everyday situations*  
*Competence goal: to fill in parts of a simple form*

The basis for this example is part of a form that is used for fault-reporting at one particular company. Fault-reporting forms can be relatively complicated, but some enterprises have designed their own versions that are easy for employees to read and fill out. If the participants are from different workplaces, they can bring a fault-reporting form with them from their place of work to provide them with the opportunity to work jointly on one form as well as with the form that is specific to their workplace.

In the first stage the participants can discuss their experiences with discrepancies at work and with fault-reporting. What can go wrong at their place of work? When is it appropriate to report it? What is important for the management or human resources department to be told when something happens? Discrepancies are often linked to safety, and safety can also be discussed more generally. It would be very useful if an employee from the participants’ workplace could come and give information and answer questions on the topic of safety and fault-reporting. It is easier for the participants to navigate their way through the form and write on it if they have a shared understanding of what it contains and
how it should be used, before starting the reading and writing exercise. Before beginning the writing process, the students can create a role-play of a situation in which a discrepancy has arisen, or look at pictures from the participants’ workplace. They contribute with suggestions for relevant situations, and the teacher selects one of these. This must be a situation which it is possible for the participants present to report on.

The participants or the teacher can bring examples of completed fault reports in order to examine different texts, read them together and discuss which texts work well for their intended purpose, and which do not. The students can use the best examples as templates for their own writing.

Everyday adult life has an abundance of forms, and most of these require reading and writing skills far beyond level 1–2. The weakest participants at level 1–2 will therefore have developed alternative methods to solve such tasks, and it may be appropriate to identify these before working with completion of the form itself. The participants can thereby share experiences and explain the solutions they tend to use in such situations, without necessarily reading everything on the form. At this level it is therefore important for the participants to manage to fill out the form, even though they do not understand all the words in it. Another useful skill is to be able to ask for help and to specifically identify what help is needed. Before starting to fill out the form, they can make oral suggestions for key words on the topic, and relate their experiences with discrepancies. Based on what comes to light, the students can be given the assignment to write selected words, and those who have challenges in writing the words correctly can use these words to learn to write with the aid of analysis. After this, the teacher can write these and any other relevant words on the board, so that each participant fills out his/her form on which they also write a free text describing a discrepancy.

The teacher can also select one of the drafts for the group to look at together. The draft can be used as a basis for discussing whether to formulate the text as bullet points or continuous text, and what should be written in the different fields on the form. Here again it is relevant to look at how words are spelled, and to practise spelling based on key words on the form. After this, the participants fill out a new form as a group.

Finally the students fill out their own forms once again, or improve those they have already filled out. An important element of the training is to ensure that their knowledge is maintained and developed. Several weeks may pass before this type of fault-reporting form is to be filled out again, and the participants may therefore benefit from planning how they will continue to practise this, and discuss whom they can ask for help if they need it. For the students to have sufficient knowledge to cope with fault-reporting in their workplace, they also need to know whether there are other things they have to do to comply with the rules on fault-reporting.
Teaching programme for level 3

Competence goal: to use clarification strategies as needed while reading

Competence goal: to use various text types to obtain information

Adults must read various texts to obtain the information they need. This applies to private life, training and work. In training, the purpose of reading academic texts and non-fiction texts is to acquire knowledge and be able to discuss the content, use it in relevant contexts and assess it in relation to personal experiences. A teaching programme that deals with reading academic texts can therefore concentrate on these skills. This training example is based on a text about values in the kindergarten, which kindergarten employees and participants who will take the craft certificate for child and youth workers may benefit from reading.

Important values in the kindergarten

All children now have the right to a place in kindergarten, and the government has announced that it will commit to quality over the next five years. Here are some important attributes of the quality concept in kindergartens.

Care
At the kindergarten we encounter all children with a caring approach. Our professional ethics manifest themselves through reciprocity in our interactions. We are therefore approachable, responsive and involved in the development of each child. We show care by giving children varied challenges and space for meaningful activities. Providing care means that the kindergarten shall promote children's well-being, enjoyment of life, mastery and feeling of self-worth.

Time
Processes in the kindergarten take time. At the kindergarten children encounter adults with competence and knowledge about children. We take the time to sit down and be open to unforeseen input and initiatives. It is in these short moments that we see the great events in children's lives. Even when we find that time is short, we create good environments for care, play and learning. We take the time needed to create positive daily routines in which friendships can be established, sound learning processes developed and play can flourish without disruption.

Security
In our kindergarten we help children develop a sense of security with regard to themselves and their identity, and for this, respect and tolerance of others is important. We therefore work continuously to develop mutual understanding and security between the kindergarten and the children's homes. At the same time, children's safety with regard to what takes place in the kindergarten is absolutely crucial to achieve positive everyday experiences. We seek to create a kindergarten in which both children and their parents and guardians have a sense of security and stability with regard to what will take place and how it is carried out.

Friendship
For many children the kindergarten is the first place in which friendships are established. The kindergarten sets the basis for friendship through play in company with peers, and we see that this is crucial for children's well-being and meaning-making. Play allows for different forms of expression that lead to understanding and friendship. We pave the way for good relationships as the basis for establishing friendships in the kindergarten.

Play
Children at play represent one of the main attributes of the kindergarten. Play allows for initiative, imagination and involvement. Children interpret their impressions and create meaning by playing and giving shape to the things that concern them, and in this way they create a common cultural expression. We take responsibility for making physical and organizational provisions for varied play.
Participation
At our kindergarten the children’s right to participate is taken seriously. We create space to understand and show respect for children’s different perspectives, modes of expression and intentions. The children are as far as possible able to influence their own lives at the kindergarten, and thereby experience that the way they view the world is worthy of being considered. The right to participation is essentially about understanding what children are expressing, and therefore we work to create the best possible communication between the children, the staff, and parents and guardians.

Environment
Our kindergarten is characterized by an environment in which different individuals and different cultural expressions meet with respect for their differences. We allow their lives to be filled with joy, humour, creativity and concern for fellowship, and we create an environment that promotes children’s well-being, enjoyment of life, mastery and feeling of self-worth. We strive for a varied and challenging environment, both indoors and outdoors, to support children’s learning and development. We encounter children’s sense of wonder in a challenging and exploratory manner, so as to form a basis for an active and developing learning environment in the kindergarten.

Learning
In the kindergarten we reinforce children’s opportunities for learning. We see that children are social players who themselves contribute to their own and other children’s learning, and this helps to create meaning in their lives. Learning takes place in the kindergarten in both formal and informal situations, and we actively use the seven subject areas in the framework plan to achieve this. We support and challenge children’s learning processes through varied experiences, types of knowledge and materials. We see care, play and learning in conjunction, and we want to highlight and elucidate what this means in our daily work in the kindergarten.

Fagforbundet.no, 2008
pants to use the professional knowledge that they already have, and if possible give examples of how they use the words in other contexts.

Working with meaning and usage can make the students more aware of how academic words, everyday words and foreign loan words are used in academic texts, and how important it is to understand these words in order to comprehend the text as a whole. When the participants read the entire text themselves, they can mark the words they worked with and think through the meaning of each word as it stands, in the context of the text. Here they can assess whether they still perceive the meaning in the same way as before, or whether the context gives the word another meaning. Being aware of one’s own prior understanding of words when encountering these words in a specific text is an important clarifying strategy when reading academic texts.

Finally the group can make a list of points that indicate what they did to facilitate an understanding of the text, in order to use this for later reading of academic texts. This could, for example, entail reading the main titles first, thinking about the sender and the purpose of the text, creating a mind map, reading short paragraphs one at a time and putting their own comprehension into words, and spending time looking up academic words, foreign words and everyday words with a different meaning in the academic text and explaining them.

**Teaching programme for level 3**

*Competence goal: to relate to functions and structures when using forms and templates*

*Competence goal: to write brief texts with arguments and grounds for them*

A complaint is a type of text that must contain factual information, an argument and a justification. Being able to complain in writing about a product, a measure or about how one has been treated is an important form of knowledge in adult life. The complaint should be relevant to the participants in their daily lives and apply to situations with which they are familiar. There are numerous templates available on the Internet to formulate a complaint, and many enterprises and institutions have separate pages on which to write in a complaint directly. At level 3 it may be appropriate to write complaints based on a template, and for this it may be beneficial to use computers as writing tools. The participants themselves can choose what complaints they wish to write, but they should be sufficiently similar in structure that everyone can benefit from working with a common text and looking at the same templates.

We recommend that the students select a type of complaint that they themselves have felt the need to be able to write. This can have the effect of involving them, and it provides the participants with a specific issue and recipient to relate to in the writing process. There should therefore be an initial discussion about what they have needed to complain about previously, what could be achieved by complaining, and how they have related to this. At this stage the spotlight is on the content of the text, after which the participants list key words for the complaint.

Writing a complaint requires skill in structuring and adapting the content and form, both to the general genre and the arguments one wishes to put forward. The text must be organized differently depending on whether the argument is based on rendering an incident chronologically, or complaining about different points in a rejection. Formulation of a complaint also requires knowledge of what the recipient concerned considers relevant in terms of information, justification and argumentation. As far as possible the teacher should therefore find information on the person or persons who will receive the complaint, and what form they would like appeals to take.

For the participants to be able to select elements that are relevant to the complaint and correctly structure them thematically and chronologically, they must first accumulate knowledge about how to do this. They can achieve this by reading some simple complaints, looking at different templates for complaints and discussing which of these templates are structured in a way that they can use. The
Norwegian Consumer Council has several templates on its website that can be used in this context, as well as a great deal of information that may be useful for the teacher.

At this point students can go in and look at a template for complaining about a product, for example a package tour. Then a case of complaint from one of the participants can be chosen and the group can discuss how it should be written. For example, it could be discussed whether the complaint should be described based on the chronology of the incident, or whether the content requires a structure with an introduction, a main section and a conclusion. The whole group can also look at what is needed in order to clearly highlight important information, and what quantity of information and what style are suited to this type of text. Afterwards this forms the starting point when the participants return to their own lists of points and write the complaints based on these.

Here the students are given the opportunity to practise creating cohesion in sentences and paragraphs, varying the vocabulary and sentence structure and using correct punctuation and spelling. Where necessary it may be relevant to discuss the difference in choice of words and structuring between written and oral complaints. When the participants have finalized production of their texts, they can discuss and summarize how to proceed next time they send a written complaint.

Teaching programme for level 4
Competence goal: to assess and analyse texts in a critical manner
Competence goal: to read various academic texts and retrieve content appropriate for a relevant purpose

At level 4 the adult shall be able to critically process information from different sources. Public information about adult education on the Internet can be important for many people, for instance when they wish to discover what rights and opportunities are available to them and their next of kin. Public information, for example about regulations, often takes the form of texts with a high density of information and many target groups. It is therefore essential for individuals to be able to find their way to the information that applies to them. In working with this text the objective is for participants to access what is relevant to them.

When approaching a complex text, it is important to have a strategy and a goal for reading it. At the first stage it may therefore be relevant for students to read the headings and the website menu together, discuss what they already know about the topic, and come up with questions they would like answered by reading this page. They can either write these questions down individually or with others before they structure the questions and assess which of them are most essential.

The participants can each choose a question that they would like to find an answer to and work with it independently, after which they can read the text in silence. After each paragraph they can summarize the content in a few words and write down the questions they now have. When they have finished they can go into pairs and each retells their part of the text to the other, based on their notes. They can then find out which section of the text applies to them, and what the text says they have to do to obtain their entitlement. This can be discussed with others to demonstrate how the information in the text impacts on different participants in different ways.

An essential aspect of being able to familiarize oneself with different information sources is to be able to assess them critically. This entails being able to constantly assess both whether the information in a text is actually relevant for one’s own situation in life, and whether the sources related to are trustworthy. It may therefore be important to discuss whether the participants trust the information they have read, and how they have reached that assessment. If they have access to a computer and the Internet, the participants can be assigned the task of finding out more about the sender and based on this of assessing whether they can trust the information they find.
Teaching programme for level 4

Competence goal: to relate critically to his/her own writing and employ strategies for writing more appropriately

Competence goal: to organize text content and use varied narrative structures

At level 4 there are greater requirements than at level 3 to be able to use others’ texts as a resource and a model for students’ own writing. This can be practised by reflecting as a group on what approaches others have chosen in their texts, and the characteristics that similar texts have in common.

The goal of a training session might be to write a job application based on a job advertisement. The first stage will deal with finding out more about the recipient of the application, what should be communicated to the recipient, and what is needed to get the message across. The participants reflect on the information that appears in the advertisement and on what qualifications are important for this position. They can be invited to talk about job applications they have written or read previously, and what typified them. It may also be relevant to discuss how they might obtain more information about the job so as to be able to write a good application. The participants then make lists of points they believe to be relevant to include in their own job applications.

In the second stage the participants compare the points that each of them has listed. One of the participants’ lists can then be selected and the group can assess whether the points listed by the person concerned are relevant as responses to the advertisement, and the best way of organizing the information. Here the teacher can produce other job advertisements and let the students see how they are written. In cooperation with the teacher, students come up with words and expressions that are standard formulations in job applications, for example in the introduction and conclusion, and typical features of syntax, tempo and level of style. The students can look at the sequence in which the information is presented, and how cohesion is created in the text. If the applications refer to an advertisement, have enclosures or refer to specific sources, there can be a discussion about how this has been done. These reflections can then form the basis for jointly writing a job application.

In the final stage the participants can return to their original list of points and use this as a basis for writing their own job application with the support of the shared text. The students’ individual texts should mainly preserve their original content but be adapted according to what they have learned about structure and features of genre. In conclusion there can be a discussion about the use of others’ texts as a model for students’ own writing, about what makes some texts better than others, and how to work to improve skills when it comes to writing formal texts.
Numeracy as a basic skill

7.1 Introduction

Numeracy is tacit knowledge, and many people believe they have the skills that they need. When adults are asked, they seldom admit that they have insufficient skills in numeracy (Vox, 2007): One study shows that 62 per cent say they have sound numeracy skills (Størset 2013b). However, the PIAAC study shows that just under 500 000 adults in Norway have a low level of numeracy skills (Bjørkeng, 2013). Some may have specific difficulties with mathematics, while others have not used their knowledge for some time and need to refresh what they have once learned. Many adults may also feel that they fall short when trying to help their children with homework.

Managers have too little knowledge of what numeracy skills the work tasks in their enterprises demand, and this results in numeracy not being perceived as important in working life. Although numeracy skills are an integral part of employees’ professional competence and are required for daily work tasks, enterprises have little awareness of the role of numeracy in these tasks. One possible reason for this is what is called “the invisibility of numeracy”, meaning that people perform tasks that are dependent on numeracy skills without being aware that they are using them. Technology conceals the fact that work tasks entail numeracy, and negative attitudes towards numeracy contribute to our inability to see it in the tasks we perform (Størset, 2013a).

7.2 What is numeracy?

FACTS

Numeracy means applying mathematics in different situations. Being numerate means to be able to reason and use mathematical concepts, procedures, facts and tools to solve problems and to describe, explain and predict what will happen. It involves recognizing numeracy in different contexts, asking questions related to mathematics, choosing relevant methods to solve problems and interpreting validity and effect of the results. Furthermore, it involves being able to backtrack to make new choices. Numeracy includes communicating and arguing for choices by interpreting context and working on a problem until it is solved.

Numeracy is necessary to arrive at an informed opinion about civic and social issues. Furthermore, it is equally important for personal development and the ability to make appropriate decisions in work and everyday life.

*Framework for Basic Skills* (Directorate for Education and Training, 2012)
The competence goals for numeracy are divided into the three areas of *numbers*, *measuring* and *statistics*.

The competence goals in the area of *numbers* encompass knowledge of how numbers fit into systems and patterns, relationships between numbers and quantifying amounts and sizes. They also include being able to use numbers and undertake calculations in practical situations, and assessing whether the answers are reasonable. Personal finances, prices and currency are topics covered by this area. Examples of functional numerical skills might be recalculating an amount of money between different currencies or making a rough estimate and calculating how much should be paid for purchases in a shop.

The competence goals in the area of *measuring* deal with being able to compare the size of numbers and being able to connect these with objects and quantities. Measuring also includes being able to assess results and present data from observations and measurements. Topics such as weight, length, surface, time and space belong to this area. A functional skill in measuring might be to assign the actual distance between given locations on a road map.

The competence goals for *statistics* encompass being able to organize, present and assess data and graphic presentations. Examples of functional statistical skills might be to interpret diagrams in newspaper articles or to understand how high the probability is of winning the pools, the lottery or other types of gaming.

Following on from the competence goals, examples have been prepared entitled “Numeracy in everyday life”. These examples link the competence goals to various arenas and situations in everyday adult life and provide a picture of how skills can be applied in practice. The examples are intended to provide ideas and inspire the teacher, and the individual teacher is expected to come up with examples that are relevant for his or her students.

### 7.3 Development of the skill

**FACTS**

**How is the skill developed?**

The skill develops from applying it in concrete situations to more complex and abstract situations connected to different subject-specific areas. The skill is developed from recognition of concrete situations to be solved to analysis of a wide range of issues.

Skills development is characterized by the ability to gradually being able to employ new concepts and learning new techniques and strategies to being able to choose suitable methods in a goal-oriented and effective way.

*Framework for Basic Skills* (Directorate for Education and Training, 2012)

Adults use numeracy skills in many different situations and for different purposes. The development of the skill corresponds to what the adult experiences a need to perform.

The competence goals for numeracy provide an outline for development of the skill over three levels.

Being basically numerate at Level 1-2 means being able to understand simple mathematical information in everyday situations and make use of simple calculations in known settings.
Being basically numerate at Level 3 means being able to relate actively to mathematical information, process this information and use calculation in various settings.

Being basically numerate at Level 4 means being able to understand and use complex mathematical information and use that knowledge to draw conclusions, communicate and present mathematical information.

The competence goals for numeracy are based on the needs of adults for functional numeracy skills in different arenas of society. The objectives for each participant’s training must be adapted to his/her own prerequisites and needs, and to the requirements of the surrounding environment. This must be taken into account when designing specific training schemes.

The numeracy skills that students have are dependent, among other things, on previous experience and educational background, but also on what they have found useful in daily life. Skills erode quite rapidly if they are not used, and adults’ competence is therefore frequently divergent. It is also possible to have good skills in some areas and weaker competence in others. Most often it is also easier to relate to tasks in known areas than in less familiar territory.

When working with minority language speakers it is important to discover whether difficulties they may have had with numeracy are attributable to insufficient skills in the Norwegian language or in mathematics. Some students will need to work on the competence goals at level 1–2 for a relatively long period, while for those who already have sound skills in mathematics it will suffice to learn the necessary terminology in Norwegian.

Many participants will benefit from working with words and expressions that will be used in the training before beginning to focus on numeracy. The fact that adults use numeracy in their daily lives means that they have shared experiences to which they can link new terms and knowledge. Competence goals that include something about money, measurements, weight and timetables link to areas in which all adults have experience. Relating the competence goals to these types of activities allows for working in parallel with the specific competence goals and with the terms necessary to be able to communicate about numeracy in Norwegian.

### 7.4 Teaching programme

In the following we will present some teaching programmes that are linked to the competence goals for numeracy. They show how working with the competence goals can be made specific and relevant by taking situations from different areas of adult life as a starting point.

**Teaching programme for level 1–2**

**Competence goal:** to use the position system for positive integers

Using the positional system for whole positive numbers is about being able to write and read numbers and understand the numbers one encounters on a daily basis. This is necessary to be able to enter an amount, read price tags and perform other tasks that are important for adults.

For some students it is necessary to work with the construction of the number system. This is about understanding why the numbers are written as they are, and being able to place the figures in the right place. Functional skills for adults in this area will also entail being able to read, write and understand large numbers we see around us in daily life.
Working with carrying over tens may be important, and it is appropriate to use specific material for this. The participants can be assigned the task of counting up objects, money or play money and grouping them into tens and hundreds and thousands. It may also be useful for them to change one-krone coins for tens, tens for one-hundred notes and one-hundred notes for one-thousand notes.

It may be helpful to fill out a form when working on understanding the content of numbers and learning to write figures in the correct place.

<table>
<thead>
<tr>
<th>Thousands</th>
<th>Hundreds</th>
<th>Tens</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example: NOK 502</td>
<td>5</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>17</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>306</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>237</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>989</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4050</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Money can also be used to illustrate the same thing:

<table>
<thead>
<tr>
<th>Eksempel NOK 298</th>
<th>2</th>
<th>9</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOK 32</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NOK 97</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NOK 136</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NOK 203</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NOK 1063</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NOK 1340</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It is important to talk about mathematics, and particularly for minority language speakers to hear how the teacher views the numbers and to practise saying them aloud themselves. For instance, the teacher might say: “We write 51. We say fifty-one. We write NOK 298. We say two hundred and ninety-eight kroner.” Authentic material from a newspaper can also be used as a basis for talking about the numbers that appear in it. For example, the teacher can talk about what the numbers mean, how they are pronounced or how many tens and hundreds constitute a particular number.

**Teaching programme for level 1–2**

**Competence goal:** to use basic units for length, area, volume, weight, temperature, time and angles in specific situations

**Competence goal:** to use measuring equipment such as clocks, thermometers, scales, measuring tapes and litre-measuring jugs

At level 1–2 students will be able to use basic units for length, area and volume in specific situations. This requires that students know that length is measured in metres, that they can use measuring tools and that they can enter the result of what they have measured in metres. They must also know that area is measured in square metres, and that they can use this to understand what is written in a property sales or rental advertisement. With regard to volume, it is a case of understanding the term “litre”
and being able to take measurements using a litre measuring container. It may also be relevant to be familiar with units such as centimetres and decilitres, since these are widely used.

Students can learn about the basic skills by showing, making measurements themselves, following a recipe or performing other real-life activities. A good basis for talking about metres, centimetres and possibly also millimetres might be to take a ruler and see that it is divided into smaller units. The participants can ascertain how long a centimetre is on the ruler, or how much a metre is. They can also continue with other measurements. One possibility is to take a room and measure its length and width and the height and width of the doors. For the participants to see how much a square metre is, a 1 m² square of cardboard can be cut out, and by moving the cut-out square over the floor, the floor area can be measured without calculating it.

It is beneficial for the participants to work in small groups, preferably in pairs. It is important that they discuss and explain to each other in order to obtain an understanding of the concepts.

**Teaching programme for level 3**

*Competence goal: to use estimates involving addition and subtraction with the aid of mental calculation*

It is important in many situations to be able to make quick calculations. Adults make rough calculations of anything from whether one has enough money to pay in a shop, to whether there is enough milk in the refrigerator. Many people think of mathematics as a subject requiring accuracy and always finding the correct answer. However, functional numeracy also deals with effectively being able to find an answer that is adequate for the situation. Some people find it a challenge to accustom themselves to the fact that calculations can sometimes be approximate.

To be good at mental addition and subtraction, a sound understanding is needed of the numbers between 0 and 10. The participants must be proficient in adding and subtracting numbers less than 10, and able to calculate in groups of five and ten. If the participant lacks an understanding of this, the teacher must start to work on that. Furthermore, good strategies are needed: for example, the participants must understand that numbers are simplified by rounding them up or down, and they must learn that different approaches are used for addition and subtraction. It is about rounding up or down in such a way that the answer obtained is as close to correct as possible. In the case of addition this is achieved by rounding one number up and one number down.

**Example: 46 + 63**

By rounding the first number down and the second number up, we get $45 + 65 = 110$.
By rounding both numbers down, we get $45 + 60 = 105$.
The latter yields a greater inaccuracy in relation to the exact answer.

With subtraction the difference between two numbers is found, and therefore rounding both numbers in the same direction results in the least amount of error. Whether one raises or lowers the two numbers, the difference between them will still be approximately the same.

**Example: 54 – 36**

Rounding both numbers down to the nearest ten gives us $50 - 30 = 20$.
Rounding 54 down and 36 up gives us $50 - 40 = 10$.
The latter yields a greater inaccuracy in relation to the exact answer.

It is important for the participants to reflect on what they do when they undertake rough calculations. By making a large number of calculations they can themselves experience that the error is small and that the answer is good enough. They can also benefit from formulating their train of thought to one
another as they go along. Conversations such as this can help others to find better strategies, or to come up with ideas themselves for new ways to make a calculation.

It can be fun to do mental arithmetic when help is provided to find appropriate methods. However it requires a lot of training to become a good mental arithmetician, and it should be made a regular activity. Make it a recurrent topic in the training and do encourage the participants to perform rough calculations when they are out shopping.

Participants may be asked to select products in advertising newspapers and practise making rough calculations by rounding numbers up and down and adding them together in their heads. The students can practise rounding to the nearest ten and the nearest five. They can also discuss what type of rounding is most appropriate in the given situation.

Teaching programme for level 3

 Competence goal: to measure and calculate the circumference and area of simple geometric shapes

At level 3 students should for instance be able to explain, using drawings and examples, what supplies need to be purchased for carrying out a renovation. They should be able to draw figures and give measurements that are easily understandable to others. They should also be able to read necessary numbers and measurements to be able to use a technical drawing or user manual. To develop this competence, participants have to be able to convert between the usual units of measurement that are around them in daily life. They have to convert between metres and centimetres, litres and decilitres, grammes and kilos, and minutes and hours.

The participants can base an exercise on the purchase of a sofa for a room. They must undertake the necessary measurements and make a sketch that can be used actively in the buying process. It is best if someone is actually going to buy a sofa or another piece of furniture, and sketches with the correct figures can be made for this purpose. If this is not possible, role plays can be performed in which buyers and sellers are played by the participants. The buyer must do the measurements and make a sketch, and use this to explain how he or she wants it to be. The seller must be active and ask questions and ensure he or she understands the customer’s wishes.

Teaching programme for level 3

 Competence goal: to systematize and present numerical material orally and in writing

At level 3 emphasis is placed on being able to retrieve information and compare and present findings. This for example entails being able to read information from tables and diagrams and being able to interpret and evaluate the average of a set of figures. These types of skills are useful for adults, especially in a work-related context.

The following assignment may be interesting for employees in a supermarket:

The participants are for example assigned the task of finding out the quantity sold of different types of milk in a shop, and whether there are some types that sell better than others. The participants have to make a proposal to the "shop manager" regarding which types of milk the shop should focus on. It might, for example, be low-fat milk, full-fat milk, 1.5 litres, 0.5 litres, or the Q or Tine brand. With this type of assignment the participants can retrieve figures on how much of each different type of milk is sold per week. When the sales figures have been assembled, they can be sorted and listed on paper or entered onto a spreadsheet. The figures must then be summarized and the participants must select ways of displaying the results of the survey. Based on the material, the students can come up with a qualified proposal as to which types the shop should purchase. The result of the survey may, for example, be presented in a role play in which one of the students is the shop manager. If permis-
sion has been given to conduct the project in a shop, it would be natural to present the results to the actual shop manager.

The same survey can also be conducted on a smaller scale internally within the group by having them ask each other about their consumption of different types of milk.

**Teaching programme for level 4**

Competence goal: to use simple formulas for calculation of magnitudes such as circumference, area and volume

Competence goal: to use ratios in practical settings, calculate speed and calculate between currency values

Competence goal: to use scales to calculate distances and prepare simple blueprints

At level 4 students should know enough about scale to be able to calculate distances on a map and calculate how much they represent in reality. In the same way, they should be able to use scale to make technical drawings and scale up or down between the drawing and reality. The participants must be able to use ratios in practical contexts, such as calculating ratios of mixtures, or scale.

A relevant assignment might be to let the participants plan and calculate the costs of tiling walls and floors in a room with a door and a window. They must make a technical drawing, decide on the size of the tiles and calculate how many tiles are needed, including extra tiles. They must investigate how many tiles there are in a pack and obtain the price per square metre for a relevant tile.

This type of assignment entails a great deal of calculation. There is a need to measure, calculate the area to be tiled, use a ruler and scale up or down between the technical drawing and actual measurements. The participants must obtain prices of materials and assess what they can afford. It would also be natural to establish a budget for expenses for the renovation in a spreadsheet.

If it is possible to find a room that someone has actually considered renovating, it can provide additional motivation to begin the assignment. The complexity means that this type of assignment is well suited as a project, and it should not be undertaken until work on level 4 is completed. The teacher’s role is to monitor whether the participants are coping with the calculations they need, and if necessary correct any misconceptions and provide supervision where needed.

**Teaching programme for level 4**

Competence goal: to compare results and make appropriate choices

Competence goal: to present a numerical material, including the use of diagrams

Competence goal: to assess statistical material presented in the media in a critical and independent manner

At level 4 students must have sufficient competence in numeracy to be in a position to critically evaluate mathematically based information that is encountered on a daily basis. This may mean being able to interpret and be critical of this type of information in the media, or being able to obtain offers of goods or services and independently select which are the most favourable. Let us look at an example.

The participants can obtain offers on three different mobile phones with two different subscriptions from two separate providers. Based on this they can be given the assignment to ascertain which offer is most reasonable in the first twelve months. The participants can work in groups and present the result to each other in a manner that is readily understandable.

To compare the mobile phone offers and evaluate which one is best for them personally, the students must obtain and evaluate a large quantity of information. For this assignment they must also choose a suitable way to present the message they wish to communicate.
This is a complex task that reflects the requirements for maturity that are set with regard to the skills at level 4. At this level the participants must be able to call on various skills and utilize them based on their needs at the time. The teacher’s role is that of a supervisor.

This assignment should be relevant to most adults. By conducting these types of investigations independently, an individual is better placed to make more qualified choices in daily life, and he or she has better control in different situations.

### 7.5 Teaching programme over several levels

Our starting point here is the calculation of percentages from the area of numbers in order to highlight the difference in the levels and to show the progression from level 1–2 to level 4.

#### Teaching programme for level 1–2

**Competence goal:** to use simple percentages such as 25%, 50%, 75% and 100%, decimals such as 0.25, 0.5 and 1.5, and fractions such as 1/4, 1/3 and 1/2

We often encounter percentages in daily life, and most adults can relate to what a percentage is. At this level the participants should obtain an understanding of the actual term “per cent”. They should understand the meaning of regular statements of percentages such as 25%, 50% and 100%. It is not intended that the participants should make percentage calculations, but if they see a discount of 50%, they should understand that it means the price is halved. It is important that the participants understand that 100% is the same as a whole, whether applied to the number of people in Norway or to the full price of a sweater.

There should be a corresponding level of knowledge with regard to simple decimals and simple fractions. Decimals such as 0.25, 0.5 and 1.5 and the fractions 1/2, 1/4 and 1/3 are so frequent that participants at this level should understand what they mean. However, there is no requirement for them to be able to calculate in either decimals or fractions. It is about understanding that 0.5 and 1/2 means half of a whole, and that 0.25 and 1/4 means a fourth part, or half of half of a whole.

When working with simple fractions, decimals and percentages, it is important to talk about where and when the students need this knowledge. They can look at recipes and advertising newspapers or find references to percentages in the media.

When the participants are working towards this competence goal, one can, for example, use advertising newspapers or go to shops and find places where percentages are given. This will create a sound basis for discussing the meaning of the different percentage statements. If the training is linked to a workplace, students can walk around and investigate how percentages are used there. In this way the participants can refresh what they know, and the teacher obtains an insight into what the participants know about the topic. Seeing the different areas in which percentages are used may also have a motivating effect.

Copies can also be distributed in which a square is divided into 100 equal-sized squares. The participants can shade in areas and show, for example, 1%, 10%, 50%. They can preferably work together in small groups of two or three, so that they can cooperate together and explain things to each other. A small square thus represents one-hundredth, which is 1% of the large square. By shading in 50 small squares, the participants will see that 50% is the same as half of the figure. This will also be a good basis for learning that “half” can also be written as 1/2. One can continue in the same way with the other percentages. This activity should establish an understanding of the term “per cent”. The objective is for the participants to understand that percentages concern parts of the whole. They should understand that per cent means “per hundred” or parts of one hundred, and that 50% means 50 one-hundredths of the whole.
Teaching programme for level 3

Competence goal: to describe the correlation between simple fractions, percentages and decimal numbers such as 1/10, 10% and 0.1, and between 3/4, 75% and 0.75

Competence goal: to calculate simple percentages

At level 3 the participants must calculate more actively than at level 1–2. They should be able to calculate how much a per cent reduction in price represents, and describe the association between fractions, percentages and decimals.

One task at this level might be to use information from advertisements and calculate how much a per cent reduction represents. For example, a shop may advertise that a pair of trousers with an original price of NOK 740 can be bought on sale at a 40% discount. The task for the participants is to calculate how much the trousers cost on sale.

Many adults can calculate how much a per cent reduction represents and they often use slightly different methods. Some use hundredths directly when they calculate in percentages: 740 · 40/100 = 296, whereas others use decimals: 740 · 0.40 = 296.

So long as the participants’ own approaches work, there is no need to change them. On the contrary, it is good if the teacher recognizes the method and preferably helps to explain to the others why it is correct. However, there is some knowledge that it is useful for everyone to have when calculating in percentages. An example of this type of knowledge is an understanding of the association between percentages and decimals, and between percentages and fractions. For instance, it is often faster to find one-fourth of a number than to calculate 25% of the number.

When developing their knowledge from understanding the term “per cent” at level 1–2 to understanding the association between percentages and decimals at level 3, the participants can resume the method of shading in squares. By shading in they can see that 25% represents 25 small squares out of 100 and therefore correspond to 25/100 of the entire large square. It is natural now to explain that the fraction bar means the same as “divided by”, so that 25/100 means the same as 25 divided by 100, which is 0.25. Thereby it can be seen that 25% is the same as 0.25. The participants can investigate the association between percentages and decimals themselves by using a calculator. By entering 25 divided by 100, they can see that the answer is 0.25. Allow them to continue to investigate other percentages in the same way.

The figure below shows the association between fractions, decimals and percentages. A large amount of information is included in this figure. If it is not appropriate to show all the information simultaneously, the teacher may choose to use parts of the figure. For instance, it is a good strategy to use the numbers line to demonstrate the association between fractions and decimals or to use the “cake figures” to demonstrate the association between fractions and percentages.
The participants can preferably work together in pairs. They can make up their own problems and explain to each other the association between the concepts. It may be useful for them to use number lines or diagrams as shown in the figure to illustrate percentages and fractions.

Teaching programme for level 4

Competence goal: to describe the position system for decimal numbers, calculate using positive and negative integers, decimal numbers, fractions, percentages and thousandths, and place them on the numbers line

Competence goal: to recognize and use the concepts of percentage point, percentage factor and thousandths in practical settings

At level 4 the participants must make use of more advanced percentage calculations and solve problems that are more complex than is the case at level 3. In addition to calculating in percentages and thousandths, they should be able to use the concepts of “percentage point” and “percentage factor” in practical contexts. Percentage point is generally used in the context of elections, in connection with a party having gained or lost ground. Percentage factor is a rapid and appropriate way of calculating growth as a percentage. Thousandths are mainly used in connection with alcohol and driving.

At this level the participants are already very numerate, but it is a case of building up confidence in what they can do. They should be able to use their knowledge of numeracy in most situations that arise, not only in known contexts. Assessing mobile phone service providers, obtaining offers and assessing costs of a renovation are examples of using numeracy in these types of larger and more complex contexts. The training at this level should be arranged so that the students can test themselves in these types of assignments. Problem-solving or project assignments are therefore well suited to this. It is important that the assignments are interesting and relevant to the participants.

The participants can investigate the difference between different election results for a particular party, a voting bloc, the entire Storting, the municipal council or the school (in school elections). They can also see the development in percentage points over time, or compare the last election results to the last opinion polls.

These types of assignments can be adapted to the participants’ level by controlling how much information they are given in advance and how much they have to find out for themselves. If no information has been given in advance, the assignment is fairly open and the students must find out for themselves what information is relevant and where they should turn to for the information they need. If the teacher wishes to exercise more control, a greater amount of information may be given.
Digital skills as a basic skill

8.1 Introduction

Society is moving towards increased digitalization, and there are ever-greater demands for competence in the use of digital tools and services in the labour market. The Norwegian white paper *Digital agenda for Norge. IKT for vekst og verdiskapning* [Digital agenda for Norway. ICT for growth and value creation] makes the claim that: “More and more parts of society are based on people being on the Internet. Most Norwegians participate in online social life and use the Internet regularly. This is an advantage both for the individual and for society as a whole” (Parliamentary white paper no. 25, 2012–2013).

However, even though information and communication technology (ICT) is used increasingly more often, this does not mean that the population’s competence is growing. In 2008 it was found that slightly more than one fourth of the adult population did not master digital technology (Guthu and Gravdahl, 2008). Although the number of people who use the technology on a daily basis has increased since 2008, there was an equally large number of people with poor computer skills in 2010 (Lønvik, 2012b). In a 2013 survey, 14 per cent assessed their computer skills to be poor or very poor (Størslet, 2013b).

The digital gap in the population is not so much a matter of whether or not the individual participates in the digital society, but rather of the way he or she participates. The majority of those who master the technology use digital tools at work and want to strengthen and maintain their digital skills. Weakly skilled users do not use digital tools at work to any great extent, and they express very little desire to strengthen their skills in this area (Guthu and Gravdahl, 2008).

8.2 What are digital skills?

**FACTS**

- Digital skills involve being able to use digital tools, media and resources efficiently and responsibly, to solve practical tasks, find and process information, design digital products and communicate content. Digital skills also include developing digital judgement by acquiring knowledge and good strategies for the use of the Internet.

- Digital skills are a prerequisite for further learning and for active participation in working life and a society in constant change. The development in digital technology has changed many of the conditions for reading, writing and oral forms of expression. Consequently, using digital skills is a natural part of learning both in and across subjects, and their use provides possibilities for acquiring and applying new learning strategies while at the same time requiring new and increased powers of judgment.

*Framework for Basic Skills* (Norwegian Directorate for Education and Training, 2012)
Society is moving towards increased digitalization, and there are ever-greater demands in the labour market for competence. The competence goals in digital skills are divided into three areas: use of ICT systems, search for and exchange of digital information and production and presentation of digital information.

The area use of ICT systems comprises competence goals linked with the use of digital tools and digital services to solve specific tasks in daily life. In addition to having a functional mastery of various applications, the adult user must be able to use ICT safely and securely. Working in this area, the adult user must develop competence in choosing the tool that is most expedient in any given situation.

Search for and exchange of digital information involves being able to retrieve, receive and process information from various sources. The user needs to develop an understanding of the aspects associated with source criticism, know how to choose appropriate sources in relation to one’s purpose, as well as have knowledge about copyrighted material and a conscious awareness of rules pertaining to reuse of digital information.

Production and presentation of digital information involves being able to produce and present information in such a way that receivers perceive it as relevant to them. The user must develop an understanding of the digital tools that are appropriate to use for various purposes and must also be able to adapt presentations of digital information to suit the occasion and/or recipients.

Following on from the competence goals, examples have been prepared entitled “Digital skills in everyday life”. These examples link the competence goals to various arenas and situations in everyday adult life and provide a picture of how skills can be applied in practice. The examples are intended to provide ideas and inspire the teacher, and the individual teacher is expected to come up with examples that are relevant for his or her students.

8.3 Development of the skill

Adults develop their digital skills in their encounter with situations and issues that require new strategies and skills. Developing e-maturity and digital judgement is an important aspect of digital skills development.

Competence goals in digital skills provide an outline for development of skills over three levels.

Facts

How are digital skills developed?

Developing digital skills means learning to use digital tools, media and resources and learn to make use of them to acquire subject-related knowledge and express one’s own competence. This implies developing increased independence and judgement in the choice and use of digital tools, media and resources relevant to the task.

Framework for Basic Skills (Norwegian Directorate for Education and Training, 2012)

Having digital skills at Level 1-2 means being able to relate to digital information when required and use digital tools, and being familiar with simple precautions when using the Internet.

Having digital skills at Level 3 means being able to relate actively to digital information and use this information in new settings and situations. Digital tools and services are known and being used.
Having digital skills at Level 4 means being a reflective user of complex digital tools and services. Production of personal ICT-based information is adapted to the situation and based on prior experience.

The competence goals describe a path towards developing the ability to use skills functionally in different areas of social life. The competence goals for the individual student must be adapted to the student’s own abilities and needs, as well as to requirements from his/her surrounding environment.

Participants may have different levels of skill within the different areas. It is therefore important not to pigeonhole a student at a given level, but rather work towards competence goals that correspond to real challenges that face the participants and to real needs for competence.

There are many ways to adapt ICT learning for participants with poor Norwegian language skills. One way is to use visual aids such as illustrations and videos as an alternative to printed teaching materials. By using icons, images and sound clips, one can also support participants when they encounter new programs and web pages in Norwegian.

These kinds of support, however, will not solve all the additional challenges that immigrants face in the learning process. Competence goals associated with e-maturity require participants to be able to discuss and reflect on topics that many speakers of minority languages have no concept about or do not master Norwegian well enough to speak about them. The competence goals that involve developing a greater degree of technical skill and confidence in the use of digital tools do not present the same challenges, provided one makes certain to explain the approach to all students at a level corresponding to their language abilities.

8.4 Teaching programme

In this section, we will present some of the teaching programmes associated with the competence goals for digital skills. They show how one can make learning specific and relevant by basing the targeted competence goals in situations from various areas of the adult student’s life.

Teaching programme for level 1–2
Competence goal: to follow recommended routines for secure and safe use of equipment and services

There are many aspects associated with secure use of digital services and digital equipment. These include data storage, updated antivirus programs and secure downloading of programs. At level 1-2, no in-depth knowledge about these aspects is needed, but one should be able to follow simple routines and be aware of some of the key issues that are involved. Many adults with little computer experience will need knowledge about security and safe use before they dare to begin using digital equipment and begin training.

The Competence goal calls for participants to learn about the potential consequences of wrongful use, such as damage to the equipment and loss of data. Furthermore, it involves learning how one should proceed when equipment no longer works the way it should. It may be a good idea to start by giving examples from real life, either the students’ own experiences or current events in the news. The students can first describe what they think happened, and can then discuss on a general level how the problems could have been avoided and what one can do when mishaps occur. On the basis of this discussion, one might make a list of good tips and things that are important to remember.

The participants must be able to follow good routines to ensure secure use of digital services. One example in this respect might be how one should treat passwords and PIN codes. The group can begin by talking about how one should safeguard passwords and PIN codes. They can continue by discussing whether in certain cases it is appropriate to provide sensitive information of this type to
other people, and to whom it can be given. In this connection it might be wise to use examples from the media of different types of hoaxes/scams involving intruders who try to acquire this kind of information via a smartphone, mobile or an e-mail message.

The teacher can also suggest routines for safeguarding and secure use of passwords and PIN codes, and the participants can discuss and comment on these. Another possibility is to permit the participants to come up with their own suggestions first, either as a whole class or in groups, and then compare them with the teacher’s list.10

It is crucial to know about safe and secure use of digital equipment and digital services if one is to be able to act sensibly in situations involving use of ICT. This knowledge provides the basis for being able to develop e-maturity and digital judgement.

**Teaching programme for level 1–2**

**Competence goal: to send information to one or more users**

Adults need basic knowledge about how to send information digitally in order to function properly in daily life. One way to address this topic in the teaching programme is to have the participants send one another an e-mail in which they explain why they think it may be useful to learn how to use e-mails. In the next step, the participants can answer the e-mails they receive, adding yet more reasons if they wish. They can also learn how to send attachments to e-mails. The attachment can be a photo, a drawing or a document retrieved from the computer’s hard drive or from their own user storage area. Through this exercise, the participants train in how to perform purely technical operations by sending and receiving e-mails with or without attachments. In addition, the exercise creates an awareness of how the use of e-mail can be useful to the individual.

E-mail is regarded as an informal, quasi-oral means of communication, and it may be useful to discuss how language functions in this form of communication.11

By writing e-mails, the students simultaneously learn how to use the keyboard; they also learn simple word processing and how to recognize simple icons. Later in the programme, when they are given an introduction to other computer programs, for example a word processing program or presentation program, it is wise to compare the icons in the different programs in order to identify common features.12

**Teaching programme for level 1–2**

**Competence goal: to enter and edit information to gain access to digital services**

When the participants are expected to work to achieve this learning outcome, the point of departure should be electronic services that they perceive as relevant to them. If there is a student, or several students, who need to apply for a place in a kindergarten for their son or daughter, this can be a good springboard for teaching. To apply for a kindergarten place online, one has to be able to enter information into a digital form. It may also be necessary to edit and change the information.13 The participants can be asked to look at an application form together, and those who need to apply can fill out the form and submit it electronically.

There are also many other types of digital forms that may be relevant. For example, the participants could register to attend a local event by submitting a digital registration form. Provided the teacher has the necessary competence, it is also possible to develop self-produced digital forms that can be used by the participants for practice.

10 There are several lists of this type on the Internet. See e.g. Nettvett.no.
11 This task can also be linked to working with basic skills in reading and writing.
12 See e.g. level 4.
13 Working with digital forms also requires reading and writing skills, and this task can be profitably used to strengthen these skills.
When using digital application processing, one can also follow the procedure and check on the progress of the processing. This enables one to follow up one’s own case and to check the information that has been submitted, as well as to verify that the case is correctly processed. If the participants do not have the opportunity to follow the progress of their own case, such as an application to a kindergarten, they might, for example, follow the processing of a local application for a building permit. The application procedure for most building permits is publicly available information, and the teacher can demonstrate how to log into the processing system via the Internet in order to follow developments in a given case.

For practice in logging in to digital services, one might start, for example, with Norge.no, a service that is accessible to everyone. This is a public portal providing access to several different public services from one site. Participants can log in and check the information about themselves that is already registered, and thereby get an idea of the amount and type of information that can be stored digitally. In conjunction with this, they can discuss the opportunities that this service provides for the individual and for the authorities. Elementary discussions about sending and storing private information digitally serve to develop the participants’ e-maturity.

Teaching programme for level 3
Competence goal: to make use of new digital tools and services unaided

At level 3, one of the objectives is that the individual will become a more independent user of digital tools and services. Icons and interface solutions are often recognizable from program to program. Therefore it is important that participants are able to rely on experience they already have when they begin to acquaint themselves with new tools and new services.

As the participants begin to work to achieve this Competence goal, one might start by presenting an e-mail program other than the one they normally use. They can point to the elements that they recognize, and to others that are new or very different. Another task might be to let them compare the e-mail program with functions for sending and receiving text messages on a mobile phone. The participants can also point to things that are common to or different in the two types of message services.

At this level, it is important that the participants learn to compare e-mail programs with other programs, for example word processing programs or presentation programs, to identify the buttons, icons and functions that are shared in common. This provides the basis for discussing the importance of being able to rely on experience when acquiring new knowledge about the use of digital tools.

Teaching programme for level 3
Competence goal: to assess information from digital sources, with an emphasis on their reliability

An important part of digital competence is the ability to distinguish the information that is best and most relevant in relation to the purpose at hand. The participants should therefore learn to use different search engines to find information and also learn to assess the relevance and quality of the search results.

One way to work with this is to give the participants tasks requiring them to critically investigate the search results. They can be given the task of searching for specific words or topics that are relevant to them. When they have completed a search using a search engine, they must first make a quick mental assessment to determine which hits they think are relevant. They can be asked to sit in small groups to discuss this together. Then they can look at the search result list together and work with the teacher to ascertain what they should look for to be able to decide which hits are relevant.

After this, they can make a critical assessment of the sources on some of the web pages by finding out who wrote the texts on the site, when the site was last updated, and also whether the content seems
to be trustworthy. By comparing and discussing the various hits in terms of source, updating and relevance, they will obtain a notion of how the sources differ from one another. The participants’ varying assessments of content are a good starting point for discussions about source criticism, copyrighted material and use of digital information.

The participants can also experiment using different search engines and then compare the results. This can be followed up with a summary aimed at making the participants aware of the fact that search engines use different search methods, and that these affect search results. When the participants learn good routines for how to find relevant information via search engines, they can avoid having to search through large amounts of unimportant information.

**Teaching programme for level 3**

**Competence goal:** to use and produce spreadsheet models to present estimates

Active use of digital services involves not only relating to existing digital information, but also being able to produce and present information to other people. This requires that the adult can type data into a spreadsheet, use simple spreadsheet formulas and present the results in an appropriate way, for example with the aid of diagrams.

The participants can be given tasks requiring them to make and present calculations to one another. These might include, for example, a travel budget, a household expense budget or a computation of what a given work task will cost. Spreadsheets can contain large amounts of information and be difficult to understand and present. Participants might therefore benefit from learning different ways by which to convey their main message. These might include different types of graphics, such as diagrams, or highlighted data, changes in text colour and other visualization techniques. Through this, they will learn to decide which elements they need to include, and which presentation forms are most suitable.

To learn this, the participants might benefit from first having some ready-made spreadsheet models presented to them, and then being given the task of presenting content elements to one another using visual aids so that the main points in the calculations emerge clearly. The teacher can demonstrate examples of how the choice of graphic visualization is important to the message one wishes to convey, and the participants can discuss how various visualizations support or detract from the content.

As a result of working with calculations and choice of presentation tools, not only digital competence is developed, but also other basic skills associated with making a presentation of information to others. This type of task can therefore also visualize the importance of working to develop other basic skills, if one is to become a good user of ICT.

**Teaching programme for level 4**

**Competence goal:** to follow recommended routines for safe and secure use, and to manage stored information effectively

At level 4, the participants must be able not only to manage and store information locally, but also to assess issues linked with using, for example, free services for data storage on the Internet. It will also be important to learn how content can be safeguarded from virus attacks by installing and maintaining updated antivirus programs.

As far as possible, training should be based on the participants’ own experience with the topic they are to work with. In this way they can more easily contribute by sharing experiences associated with problems in storing and retrieving documents, files and e-mails. Let the participants discuss and exchange experiences they have in managing stored information efficiently. The teacher can present a few examples of information (for example, e-mails or documents) that has been stored in an incau-
tious manner, and the participants can work together in small groups and come up with suggestions for how the information should best be organized. The groups will not necessarily reach the same conclusions, and this can become the basis for a discussion in which the groups have to explain the rationale for the suggestions they developed.

It may also be a good idea to discuss whether one should store private information in a web service and the consequences that this might have. The participants can discuss who owns such information and how one can ensure that one’s own information is not misused. In conjunction with this, it may also be relevant to discuss the use of social networking services (for example Facebook) and the security aspects of this. Here material can be obtained from discussions in the media on the use of social networks on the Internet.

Another topic of interest in the work to achieve the Competence goal is security when the Internet is used at work for private purposes. Discussions like these can contribute to developing the participants’ e-maturity.

**Teaching programme for level 4**

**Competence goal: to be aware of possible reuse of material he/she has published**

Sharing digital content on the Internet is becoming an increasingly common practice. This requires good knowledge about storage and retrieval, and students must be able to adapt content, formats and presentation forms to different groups and different situations. In addition, they must be aware of the fact that others can use/misuse digitally published material. They should also know a little about various techniques that can be used to protect their own work from being copied.

Participants can be given the task of making a short presentation on a topic that interests them by copying, entirely or partially, pictures and segments of other people’s texts from the Internet. They should not be given a long time to do this assignment. The participants can then compare presentations and try to find the parts that have been copied from others and see if some of the text segments recur in several of the presentations.

Much information can likely be copied without a problem, but in some cases there may be restrictions on copying the information. Ask the participants to write down where they find such restrictions, if any, and discuss why the persons who uploaded the information chose to do this. Working together with the teacher, the participants can reflect over the rules for use and reuse of digital information and find the most important regulations regarding this. One might also discuss various ways by which to lock information content and identify the document types that have the best security safeguards. The discussion can be extended to include topics such as copyrights and, more generally, source criticism.

**Teaching programme for level 4**

**Competence goal: to assess and use different methods to organize and present information adapted to the situation and the recipients**

**Competence goal: to produce and use presentations with multimedia content**

One starting point in the work to achieve this Competence goal might be to have the participants establish and maintain a blog on a topic they know about and are interested in. They can write the content themselves, but can also search the Internet for relevant content. Through this task, they develop their competence in searching for information and their ability to quality-assure what they find. A somewhat advanced blog solution should be selected so as to permit text insertion and editing, the use of different design elements and uploading of pictures, sound clips or videos. The participants thereby have the opportunity to work with text production, development and linking of information with a content adapted for a given purpose. They can also be given the task of finding services that automatically notify other participants when the blog has received a new post.
The teacher has a good opportunity, in conjunction with this task, to bring in other competence goals. For example, one might discuss personal privacy protection with reference to the anonymity of individuals who post inappropriate comments on blog pages and discussion forums. This is also a good basis for discussing source criticism, since it can be linked to the use of blogs as sources of information.

8.5 Teaching programme over several levels

This teaching programme is based on the functions in a standard e-mail program. We provide examples of functions that can be worthwhile to work with at each of the three levels. The examples are intended to illustrate how requirements for understanding and techniques in the use of e-mail programs are different at the three levels.

Teaching programme for level 1–2

Competence goal: to recognize and use interface solutions (icons, radio buttons)
Competence goal: to send information to one or more users

At level 1–2, adults need to understand what e-mail is, be able to send and receive e-mail and use e-mail programs as a channel of communication. They must acquire an understanding of what happens to an e-mail when it is sent, and be aware of security aspects such as spam mail and phishing.

At this level, no prior knowledge is required, and it is important to avoid using too much technical terminology. Generally speaking, it is important to adapt language to the participant group in question.

It may be wise to begin the training session by making certain that the participants know how to find an e-mail program. If they do not have their own e-mail accounts, accounts should be opened for them. At this level, various files and icons in the program should be explained. The teacher must ensure that every participant has an e-mail in their inbox so that it can be worked with. The teacher can either send an e-mail to the participants or have some other person whom they know send one. Participants can be shown how to open an incoming e-mail message and how they can react to it in various ways. At this point it is natural to demonstrate the icons for writing, sending, deleting and storing e-mails, as well as how one forwards a copy to a recipient. In addition, the participants can learn to open attachments and link attachments to an e-mail. Next, they can practise on their own by answering incoming e-mail, sending new messages and forwarding e-mails to each other, as well as either deleting or filing e-mails.

It is important that there is enough equipment, identical software and sufficient supervision and support. the teacher also needs to set aside enough time and refrain from introducing new elements before ascertaining that everyone has understood the previous one.

Teaching programme for level 3

Competence goal: to follow recommended routines for storing information
Competence goal: to understand and ensure personal safety by using routines for secure and safe use, with particular emphasis on privacy and data protection

At level 3, the participants will have a more advanced ability to actively utilize the e-mail program as a channel of communication. The participants can start by entering the senders of the e-mails they have received from other participants as contacts in the program’s address book. After this, they can practise sending e-mails to the others by retrieving e-mail addresses from the address book.
The next task might be to have the participants establish their own e-mail group, including themselves and the teacher. This can be used to further communicate with one another. They can also learn to send and receive messages with blind copies to one or more recipients. At this level, one can also work with setting up an e-mail signature and using the Out of Office Assistant. The participants can also learn to add a toolbar and change fonts and colours in e-mails.

Based on their own experience, the participants can then discuss the meaning a sent e-mail may have. In this respect, one can bring in levels of language usage and style and whether or not it is suitable to combine private and job-related content in an e-mail sent in a work context. Next, one might talk about what happens with e-mail messages after they are sent. They may be deleted, but they might also be filed in the receiver's e-mail program or filed by a company, and they can be forwarded to others without the original sender's knowledge. Discuss the need to be conscious about this and the potential impact of what one writes, and how one should express oneself in an e-mail.

**Teaching program for level 4**

**Competence goal:** to be aware of possible reuse of material he/she has published

**Competence goal:** to master word-processing tools for production, storage and systematization of digital information

At level 4, one should be able to use the more advanced functions in an e-mail program. One must be able to rely on the participants' having already developed a good knowledge of word processing, the Internet and other programs. They must also have the competence to select programs on the basis of their own needs and manage to transfer their user knowledge from one program to another.

At this level, it is suitable to work with advanced organization and storage of documents in e-mail programs. This might include, for example, establishing rules for where e-mail is to be received or stored. The participants can be given the task of establishing rules for handling spam mail. They can also establish a rule that directs all e-mail received from the teacher to a designated folder.

The participants can learn to use the integral functions of the e-mail program to organize work tasks to be performed in the workplace and at home. They can be given the task of entering all planned training hours in the e-mail program's calendar. If there are several training sessions given regularly at the same time, they can enter these as recurrent events. Next, they can practise sending notifications of short meetings to one another. The meetings might be to have a cup of coffee during a break or to meet one another outside the regular training sessions, for example for a study group where they review and discuss what they have learned or work on assignments they have been given.

If the system allows for it, they can also be assigned the task of finding out how one synchronizes content, calendar information or e-mail messages with a smartphone or mobile telephone. Since there is no standard procedure for this, the participants can benefit from helping one another and sharing experiences about what works, doesn't work etc.
9 Oral skills as a basic skill

9.1 Introduction

It is necessary to have oral skills in most work processes, and these skills are part of almost all training situations and are also important in family and private life. Communication and ways of communicating are important for the work being carried out and for the wellbeing and interaction of people.

Oral skills largely relate to how spoken language is used to carry out specific actions. When adults face new tasks or take on new roles, they encounter a number of new challenges that make demands upon their oral communication skills. In these situations, an important support may be to obtain guidance and an opportunity to reflect on the challenges.

For employers, increased attention to oral communication within the enterprise can both improve work quality and enhance safety in the workplace. Not least, it can contribute towards an improved encounter between employees and vis à vis external users. The manager of a municipal care institution describes this as a need for “professionalization and improved oral competence within the company” (Høie, 2009).

For many people, working with oral communication will be a prerequisite for being able to benefit from other types of training. In most training situations it is important for learning outcomes that the participants are able to ask for clarification and participate in group discussions and problem-solving.

9.2 What are oral skills?

**FACTS**

Oral skills relate to creating meaning through listening and speaking. This involves mastering different linguistic and communicative activities and coordinating verbal and other partial skills. It includes being able to listen to others, to respond to others and to be conscious of the interlocutor while speaking.

Oral skills are a precondition for exploring interactions in which knowledge is constructed and shared. Oral skills are a precondition for lifelong learning and for active participation in working and civic life.

*Framework for Basic Skills* (Norwegian Directorate for Education and Training, 2012)

The competence goals for oral skills are divided into three areas: *communication and learning strategies, listening and responding and speaking and communicating.*
The area of communication and learning strategies comprises strategies that are an important support in the development of oral skills. These are strategies that are of key importance if one is to be able to manage and take responsibility for personal learning. They are also needed to obtain what one wishes to achieve through the communication. The objectives in this area can be regarded as conditions for or recurrent themes in the work with the competence goals in the area of listening and responding and that of speaking and communicating.

Listening and responding are both important oral skills for adults. In working life, during leisure time and in education, listening is required, and one must be able to listen flexibly and in different ways depending on the purpose of listening. The way we listen varies depending on whether we are attending a lecture, listening to the weather forecast or participating in a personal conversation.

Speaking and communicating is a skill needed in order to care for ourselves and our families and to be able to carry out most activities in daily life. When speaking, signals are consciously or unconsciously sent out identifying who we are, what we are thinking, and how we wish to be perceived by others. Being able to adapt our speech according to the way we wish to be perceived, and according to the context in which we find ourselves, is therefore important to be able to function and feel comfortable, both in private life and at work.

Following on from the competence goals, examples have been developed entitled “Oral skills in everyday life”. These examples link the competence goals to various arenas and situations in adult daily life and provide a picture of how skills can be applied in practice. The examples are intended to provide ideas and inspire the teacher, and the individual teacher is expected to come up with examples that are relevant for his or her students.

9.3 Development of the skill

Good oral skills require well developed language abilities and the ability to adapt language, listening and interaction to various contexts. Adults may need to develop skills in conjunction with other training, participation in the workplace or activities in private life.

FACTS

How are oral skills developed?
The development of oral skills begins at an early age and classroom work consequently has to build on them and develop them further beyond what has already been acquired outside the classroom. From primary to secondary education students proceed from mastering basic oral communicative skills to developing more varied, distinct and precise ways of expressing themselves orally, thus moving towards cognitive academic language proficiency.

Mastering oral genres in constantly more complex listening and speaking situations requires active participation. Skills development is connected to subject-related content, terminology and modes of expressions. At the lower stages this implies being able to express one’s own opinions, present oral texts, narrate experiences in a structured way, listening and responding as well as taking turns in conversations. In secondary education students should be able to substantiate their opinions, discuss subject-related topics, appreciate different modes of expression and assess their own performance.

Framework for Basic Skills (Norwegian Directorate for Education and Training, 2012)
Competence goals in oral skills provide an outline for development of skills over three levels.

Having oral skills at Level 1-2 means being able to engage in simple communication in known settings. The main content of messages and instructions is comprehended and simple communication strategies are applied.

Having oral skills at Level 3 means being able to communicate actively on topics of interest in known settings. Personal interests and needs in daily life can be fulfilled, and oral communication abilities can be developed as needed.

Having oral skills at Level 4 means being able to communicate flexibly and effectively in known as well as unfamiliar settings. The adult can engage in exchanges of opinion in public and private settings and assume responsibility for the communicative process.

The competence goals describe a path towards developing the ability to use skills functionally in different areas of social life. The competence goals for the individual student must be adapted to the student’s personal abilities and needs, as well as to requirements from his/her surrounding environment.

The level of the oral skills may vary according to personal experience, the types of conversations in which one normally participates, and the topics that one has frequently talked about. There can be differences between listening skills and speaking skills. Oral skills in adults are therefore often divergent.

The competence goals for oral skills are adjusted to the greatest extent possible to accommodate those who are native speakers, as well as those who are second-language speakers. However, some participants will need more than others to work on developing language and cultural understanding.

It is important to work with a view to enabling the participants to make themselves understood in various situations, including those with background noise and disturbances, or those in which communication demands a high degree of linguistic precision. Systematic training including feedback on pronunciation, intonation and voice production can therefore greatly help the students along the way to achieving the competence goals.

Several of the competence goals cover the need to adjust language style and communication strategies according to the context and the recipients. To be able to make such adjustments, there is a need to perceive the small signals in the context as well as the signals from the other participants that indicate what adjustments need to be made, and what roles one should assume. Some signals are culture-specific, and for some people it may be useful to reflect on ways by which one can interpret and relate to such signals.

Speakers of minority languages may have problems understanding the words used by teachers and others to explain words they find difficult. Therefore it may be useful to focus on words that are frequently used in explanations and that create context and meaning in what is said. It may also be important to provide training in strategies for taking control of the communication situation and for asking for help and clarification in an unambiguous way.

9.4 Teaching programme

In this section, we will present some of the teaching programmes associated with the competence goals for oral skills. They show how learning can be made concrete and relevant by basing the targeted competence goals in situations from various arenas of adult life.
Teaching programme for level 1–2
Competence goal: to point out what has not been understood and ask for help
Competence goal: to receive and follow up simple messages and instructions

For all those who are in training, it is important to be able to understand messages so as to be able to follow them up. In this activity, the participants will therefore work to express what they do not understand in a given instruction, and learn how useful it is to ask for help. When working to achieve these objectives, it may be a good idea to relate to communication situations in one’s own training where the participants must be active in order to understand messages that are given. Instructions given by the teacher pertaining to homework are an example of one such situation.

The procedure in this example is a type of cooperative learning exercise14 and requires ample time. The participants must be told clearly that it is important to speak out if they do not understand what is being said.15 The teacher divides the students into groups of four and five (“base groups”), and each participant in each group is given a number: one, two, three and four. All “ones” and “threes” go to the teacher and are given instructions concerning the homework. The “ones” are told to pass the message on to the “twos” in their respective groups, and the “threes” are told to inform their respective “fours”. The students return to their base groups, and the twos and fours tell the others what they have understood the homework to be. The base group determines whether the messengers have understood the instructions in the same way. Following this, there can be a short summary including what the homework actually consists in, but also what was difficult to understand, why it was difficult to understand, and what might be done to understand better next time.

Through this work method, the very act of passing on instructions becomes a way of discovering what one did not understand. The participants work with both giving and receiving messages, but it is their own understanding and strategies that are in focus. Therefore, it is important that the teacher ensures the message is given at a level that will make it challenging for the participants to understand, so that they will have to express this in order to fully understand everything.

For some participants, their perception of the relationship to the receiver is what makes it difficult to speak out when they do not understand what was said. In the summary, it is therefore important to emphasize that there is a real difference between admitting to a teacher in the presence of peers that one doesn’t understand, and making the same admission to another participant on a one-to-one basis in a group. At this level some participants may need to learn, in terms of language alone, how they can express that they do not understand, and how they can do this in an appropriate way in different contexts. If this is the case, it is natural to begin training with model sentences that can be used in various situations.

The exercise can be further developed or altered so that it relates to being able to ask for clarification in the workplace or during leisure time.

Teaching programme for level 1–2
Competence goal: to initiate a simple conversation
Competence goal: to give an account of his/her job, daily life and interests

It is an art to be able to initiate a conversation, and doing so varies from one setting to another, with different interlocutors and in different conversational cultures. It is important to be able to adapt the introduction and “narration about oneself” to the context and the interlocutor. At level 1–2, the participants are expected to do this in familiar contexts and in a simple manner.

---

14 For more about cooperative learning, see e.g. Toril Sjo’s blog.
15 For more about working with understanding messages, see Arbeidsnorsk – evaluering av et kurs i grunnleggende ferdigheter for minoritetsspråklige i arbeidslivet [Working Norwegian – an assessment of a course in basic skills for minority language speakers in working life] at vox.no.
One way to work with this task is to use role-playing combined with reflection about self-narration. As an introduction, the group can be asked to discuss how one initiates conversations, and whom they normally chat with. The participants can talk about experiences they have had in this area. Next, the teacher puts the participants in pairs, giving each pair different roles to play. It is important that the context of the assigned conversation is as specific as possible, and that the pairs spend a little time thinking about the roles they are to play: gender, age, role, attitude, relationship and so forth.

The pairs are also given a specific situation in which they are to initiate the conversation, for example on a stairway, in the break room, across the counter in a shop, in a kindergarten or at the doctor’s office. They should be given time to discuss the situation so that it becomes as tangible as possible for them. They might consider, for example, whether the situation is calm or stressful, whether or not they are alone, whether it is a sunny and warm day, or rainy and cold. The teacher can also instruct them on what they should talk about, or invite them to discuss what might be a suitable topic of conversation in the given situation and between the two persons in question. To illustrate suitable or unsuitable roles in various contexts, the teacher herself can play a caricatured role.

This introductory stage is important in order to provide the participants with a better opportunity to create appropriate conversations. The student who is supposed to initiate the conversation must think through what he or she will say about the topic, and how to say it. For example, the pair might consider these questions: What will I say to this person; what might the other person be interested in hearing me talk about; how much should I say, and how should I start a conversation on this topic? The participants should be asked to merely improvise the conversation and not write it down. This is to avoid the language being more written than oral. Improvisation can be done in pairs or in front of the other students.

As a conclusion, the entire group can discuss how the different conversations were initiated, what was said as an introduction, how the listener’s attention is caught by using words and body language, and the various ways of talking about oneself. To increase consciousness about adapting the conversation to the situation, one might also ask the participants to consider how the conversation would have gone if it were in another location or with different roles.

It might be beneficial to arrange for practice in initiating conversations in real situations. This can be done by inviting an outsider into the group and having group members converse with him or her in an informal and relaxed atmosphere, perhaps over a cup of coffee etc.

**Teaching programme for level 3**

**Competence goal:** to use strategies to clarify and confirm shared understanding

**Competence goal:** to comprehend relevant information in formal settings

Being able to ensure a common understanding in communication and learning good strategies for this are important in most situations. For example, it is important that people leave a meeting with the same understanding of what was agreed upon. In a training situation, the participants can practice taking responsibility for this, and they can be made more aware of the use of various strategies.

If the group is large enough, the students can sit in two circles, one inner and one outer. If the group is not large enough for this, most of the participants can sit in a ring while only two or three sit outside the circle and observe. The students in the inner ring are given a different task than those in the outer ring. Those in the inner ring either hold a real class meeting or they hold a “pretend” meeting that is predefined in terms of place, situation, purpose and time frame. One participant is designated to chair the meeting. The others participate in the meeting and try to take account of relevant information. The students in the outer ring are to observe how the participants in the meeting indicate or

---

16 This example builds on an exercise described in the book *Muntlige tekster i klasserommet* [Oral texts in the classroom] by Sylvi Flønnø and Frøydis Hertzberg.
confirm that they have understood the information that is given. When the meeting is adjourned, the participants in the outer ring present what they have observed, and those in the inner ring report what they perceived to be relevant information. This provides the basis for a further discussion about what was relevant information and how one can ensure that the group reaches a common understanding of the communication.

Finally, the entire group can summarize various ways by which to get a grasp on important information, and they can contrast good and poor strategies for doing this. The teacher can also bring in the factor that the way the chairperson presents information can also influence the ability of the others to understand and indicate that they actually share a common understanding in the situation.

**Teaching programme for level 3**

**Competence goal:** to adapt listening and feedback signals to the situation at hand

**Competence goal:** to solve problems and misunderstandings occurring during communication

If a student is to communicate well, it is crucial to be able to adapt personal language to the context. In communication situations that are perceived as somewhat problematic, this is particularly important. In this example the participants are to work with explaining a delay in a work process. The students are asked to plan and then dramatize a situation. The purpose of the activity is to give the participants an opportunity to reflect on the significance that recipients and the purpose have for the way they express themselves.

All students are given a brief description of the task: “You are to explain to another person why there is a delay in a work process.” The teacher can visualize this with a drawing, a photo or a film. Time can be devoted to discussing the kinds of delays that may occur in the participants’ regular workday. Following this, criteria can be agreed for what should be taken into account when explaining a delay.

The participants sit together in pairs and are given a type of delay and the situation in which it occurs. Everyone is given time to conceptualize as specifically as possible the situation and the receiver of the message. The participants can consider questions such as: Where are we when we have this conversation? Are we in a hurry? Is this a telephone conversation? Are there other people present? Is the purpose to offer an excuse, set a new deadline, reassure someone or offer an explanation? To emphasize how the communication needs to be adapted to different receivers, the pairs play different roles. For example, they are asked to explain the delay to the boss, a client or a friend/family member. When they dramatize the situation, they can choose to create a monologue for the person who is to explain the delay, or a dialogue between this person and the interlocutor. The pairs can then practise role-playing in the situation.

The pairs are asked to present what they have rehearsed in front of another pair of participants. The other pair is given the task of providing feedback based on the criteria the group agreed upon beforehand. For example, they can assess choice of words, gestures, argumentation and justification. Would the strategies they used be relevant and appropriate in real life?

Finally, it may be useful to summarize and have a discussion in class in order to again focus on awareness of the intended recipient. The participants can ascertain, for example, whether the pairs that were assigned the same recipient to some degree used the same words or gestures, the same argumentation or the same justifications.

This task can be adapted to different life situations and to most occupations. If the participants work in the nursing and healthcare sector, for example, the task might be to explain a delay to a next of kin, to a patient/user or to their own supervisor. Shop assistants can be given the task of explaining to different client groups that an ordered item has been delayed. The client might be an adolescent, an older lady or a peer of the opposite gender.
Teaching programme for level 3

Competence goal: to reflect on his/her communication challenges
Competence goal: to use strategies to clarify and confirm shared understanding

Good communication requires that partners in conversation who disagree can express and justify their personal points of view in a respectful manner. This applies, for example, in situations where an individual is unable or does not want to complete a task that has been assigned. In the workplace it is important to be able to speak up about such matters when they involve general safety, work quality and, not least, the psychological and physical well-being of the individual. It is also important that employees are able to protect themselves from being exploited and from becoming exhausted by work tasks. When things have to be done quickly and tasks cannot be postponed, employees may find it difficult to speak out and make it known that they need help. In this activity, therefore, the objective is to make the participants conscious of the best way to say no to an assignment, and how they can justify this.

The participants can be divided into pairs, preferably according to shared challenges or shared work tasks. If there are few participants, the activity can also be conducted as a class. In the initial stage, the participants are asked to discuss their own experiences with saying no to an assignment. For example, they might discuss what they normally do if they don't want, or don't succeed at, a task they have been assigned. Have they ever experienced not being able to speak up about this? Have they experienced that the person they told this to became irritated or angry?

If the participants have been working in pairs, they are asked to pair up with a different participant and tell him/her what they talked about in the preceding discussion. If the exercise has been conducted as a full class, this stage can be omitted, and one can proceed directly to the next questions for discussion: How does a person speak out in an appropriate way if he cannot accept an assigned task? Is there a difference in the way an employee should speak out to a supervisor as opposed to a colleague? As a full class, the participants are to come to agreement on a checklist of things to remember in the event such a situation should occur. Another option is to write separate lists, one for saying no to a supervisor, and another for saying no to a colleague. The lists can contain appropriate phrases and important words. They should also contain tips on things to remember, for example:

- Be constructive and offer alternatives for how the work can be accomplished otherwise.
- Justify the refusal in a factual and unambiguous manner.
- Show that you understand and appreciate the extra work this might demand of others.
- Show respect for the receiver, but at the same time be sufficiently clear that you are taken seriously.

Teaching programme for level 4

Competence goal: to adapt and comprehend the importance of the choice of words and their usage in various settings
Competence goal: to receive and respond to positive and negative feedback

In some occupations, people must be able to tolerate a certain amount of talking-to and criticism from both colleagues and supervisors, and also from customers. In this activity, the participants are to learn how they can accept criticism in a way that mitigates the stress of the situation. They must also reflect on the significance that choice of language and language style has for the way situations evolve, and the strategies they can use to change communication situations that are perceived as difficult.

One approach to this issue might be for the teacher to draw a reflection circle on the whiteboard (see figure below) and then explain how it can be helpful in changing one’s own reaction pattern, language use and forms of communication in challenging situations. The teacher and students talk together about the importance of being able to come up with logical alternative ways to understand a situation and to communicate. The participants are asked to talk about a recent situation in which they were
criticized. The teacher follows up the students’ accounts by asking questions linked to the points in the reflection circle.

**Reflection circle**

1. What happened? Description of the situation
2. What did you feel/think? Why? Feelings/thoughts in the situation
3. What did you experience as positive/negative in the situation? Evaluation
4. Why did this situation develop the way it did? Analysis
   - Can it be understood in another way?
5. What could you have done differently? Why? Conclusion
6. What will you do if you get into a similar situation? New behaviour

There will always be some anecdotes that are more interesting than others. It may be useful to give the group time to analyse and discuss the event as a group, to come up with advice and theories to explain what actually happened. Following on the latter point, one might have the group set up specific objectives they wish to work with so that the participants will be better prepared the next time they are criticized.

---

The example builds on the pamphlet *På vej med sproget – arbejde, livshistorie og sproglearning* (*On the road with language – work, life history and language learning*) by Michael Svendsen Pedersen. The model has been adapted.
Examples of these points might include being able:

- to express oneself so that the person making the criticism feels he or she has been heard and understood
- to make use of critical listening to understand the essence of the criticism if it is unnecessary to understand everything
- to listen attentively to everything to understand the real background for the criticism
- to judge what is important, and what one should take on board
- to summarize and answer the criticism in a constructive way, while at the same time attending to personal interests and maintaining one’s own understanding of the situation

The reflection circle can be used several times during the training, so that the participants get practice in using it as a strategy when they need it.

**Teaching programme for level 4**

Competence goal: to adapt communication strategies to the recipient, purpose and context
Competence goal: to hold pre-planned presentation on the basis of personal experience or technical knowledge

In this activity, the participants are to work with the Competence goal that states they should be able to “to make planned presentations based on personal experiences or technical knowledge”. This may be suitable if, for example, they need to present the results of a committee effort or a project in a formal setting. To be able to make a presentation, one will in many cases rely on the use of various presentation tools. This requires that the adult knows how presentation tools can support oral performance, and not detract from it. In the training, participants can get practice by having them prepare a presentation of what they have learned during the course, and explain how the way they have acquired knowledge can be useful in other connections.

The participants discuss in groups or as a class what they think is important in this type of presentation. Next, they must agree on a few points to be used as criteria for evaluating one another. The person(s) making the presentation can be evaluated, for example, based on whether or not they can

- supplement one another and help if the other person gets stuck
- use digital presentation tools and/or other visual aids to support the oral narration
- use notes, while at the same time being able to speak freely and adapt to the recipients and time constraints
- use body language to underscore the most important points
- ensure that everyone is able to hear and understand what is being presented by using clear voice modulation and distinct pronunciation, a listener-friendly rate of speech and speech rhythm.

The participants can then work to prepare a presentation in small groups. They are given guidance in using suitable presentation tools, and they create content with the aid of sound recordings, film or pictures taken with a digital camera. The skills that the individual participant has in terms of digital com-

---

18 In this activity, one can work in parallel with competence goals in oral skills, reading and writing and digital skills.
petition will determine the tools that they should be encouraged to use, and the way they use them. When they have finished creating and practising the presentation, they can perform it for the others and get feedback based on the evaluation criteria they have agreed beforehand. Following this, they should make one or more presentations to an outsider who is interested in hearing about the course. This will allow the students to practise adapting the presentation to a real-life recipient.

9.5 Teaching programme over several levels

The participants’ level and rate of development will vary, and it may be necessary to individualize the degree of difficulty of an activity according to the participants’ ability. In working life, being able to give and receive instructions is important, not least in order to avoid accidents and hazardous situations. It is particularly important that everyone understands instructions pertaining to health, environment and safety (HES). Therefore, in this section we provide an example of how students at different levels can work with giving instructions to colleagues about important safety measures.

Teaching programme for level 1–2

Competence goal: to give simple messages, explanations and instructions
Competence goal: to participate in simple conversations about everyday matters, work and training

In this activity, the students are to learn how to give safety instructions. The teacher first shows how a safety briefing can be presented. This is done by having the participants observe real-life situations, watch a film, listen to sound recordings or observe the teacher providing instructions to a participant or outsider. The participants watch the instructions being given several times. When needed, an extra session can be added during which the group works together collecting words and expressions that are important to know when giving instructions. Next, the students discuss in pairs. What worked well, and not as well, in the briefing they saw; what information was given, and how was the information conveyed? What would the participants themselves have found challenging in this situation? The discussions are summarized in the plenary group.

Each pair is then given an individual safety measure and they are tasked with preparing to give a briefing on how one must act in order to comply with the measure in question. If they find it useful, the participants can use a dictionary, the list of words that were collected as a group, or their own notes. It is important that the safety measure is linked to something they are already familiar with, and that the measure does not require complex instructions.

The pairs are dissolved and the participants are then regrouped so that each new group has two or more persons who have not worked on the same safety measure. Each participant gives his/her safety briefing to one or more of the other group members. The recipients can be asked to report what they understood from the briefing, and together the group can discuss whether the instructions would have been sufficient to avoid accidents.

In the interval between this and the next training session, the participants can be given the task of observing how other people give instructions at their own workplace, or another, and make note of words and expressions they heard used. They can also try to give instructions and messages based on what they have learned in the course.

Teaching programme for level 3

Competence goal: to use strategies to clarify and confirm shared understanding
Competence goal: to give instructions and explanations for relevant job tasks

For participants who are ready for greater challenges, it may be appropriate to reflect on ways to ensure that an instruction is understood in various situations and by different recipients. This entails
that the students go from learning “recipes” for how to give instructions to developing a range of strategies that can be used to signal and confirm a common understanding in their encounter with normally supportive conversation partners.

The students begin by thinking of a few questions on the topic, for example: How can one ensure that the message is understood in a stressful environment, over large distances, in rooms with lots of noise or activity going on? The answers to these questions are discussed as a class.

The participants are then given different safety measures to work with. Here the teacher can individualize the training by selecting measures that are suitable to the individual’s experience and skills level. The participants are given time to prepare a presentation to others on the safety measure. When they have finished preparing, they are asked to circulate about the room and give their instructions to two other participants who have not worked on the same safety measure. The presenters are also to receive instructions from others and are to use strategies to ensure that they understand these instructions correctly. While this activity is in progress, the teacher can change the parameters for communication at regular intervals and thus vary the degree of difficulty for the presenters:

- The participants have to give and receive instructions with background noise in the room (a radio playing at high volume, for example).
- The presenters are given a maximum of five seconds to give their instructions.
- The recipients are required to perform another task at the same time as they receive instructions.
- The instructions are given while the listeners stand with their backs to one another.
- The instructions are given in a group of three; one observes while the other two give and receive instructions.

Finally, the participants can discuss as a class what they found challenging in the different situations, and what strategies they applied to cope with this. Which of the situations might be relevant in your own daily life?

**Teaching programme for level 4**

**Competence goal:** to adapt communication strategies to the recipient, purpose and context

**Competence goal:** to hold pre-planned presentation on the basis of personal experience or technical knowledge

Participants at level 4 can also benefit from working with giving safety briefings to others. These students can work with more complex instructions, several recipients at a time and conversation settings in which the presenter must take greater responsibility for communication.

In this activity, the participants are given the task of briefing a group of new colleagues or apprentices on the content of a company HES code. This will be relevant for many who take on assignments such as safety representative, team leader or mentor for new employees. The objective is that they are to be able to convey information to recipients with whom they are not well acquainted and who are also unfamiliar with what is being talked about. Although the instructions are mainly given in the form of a monologue, they should be conveyed in an educational manner. The presenter must be able to identify and cover the recipients’ need for information, check that the listeners understand, and use technical vocabulary in a functional manner.
The activity begins by having the participants as a class develop a list of criteria they think must be present in order for an HES code to be properly presented. Evaluation criteria might include, for example, that the person speaking is able to dissociate himself from the document he is using, that he or she expresses himself/herself in a way that avoids creating uncertainty, and that he or she provides sufficient information so that the recipient is actually able to follow up on the instructions.

The teacher then divides the participants into groups and gives each group a copy of the HES code or HES memorandum. The students are to prepare an oral review of these documents. The groups take notes, plan their presentation and practise it among themselves within the group. Finally they give the instructions to all of the other participants as recipients, or in larger groups in which some listeners have not previously heard the instructions given. The listeners pay attention and assess the instructions that are given in relation to the evaluation criteria that were agreed beforehand.

An individual employee’s position and assigned tasks in the workplace have an impact on what the individual is expected to contribute so as to ensure that the workplace is as safe as possible. Regardless of the skills the participants possess in oral communication, one will nevertheless be able to identify, for each participant individually, communication situations associated with safety that are possible and relevant to work with.
References


Jacobson, E.D., Sophie og Victoria Purcell-Gates (2003). Creating Authentic Materials and Activities for the Adult Literacy Classroom. NCSALL.


Studie, T. (2012). Viktig med grunnleggende ferdigheter, men hvor gode er vi?


