# Moodle implementation guide

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## General

### 1.1 Reference to internal or external textual or graphic objects is made by explicit naming, not solely by means of a description via visual or auditory features.

#### ****What is meant by this?****

Objects used must be explicitly named and described in the existing text. Internal textual objects refer to texts, headings, footnotes, endnotes and text fields. External textual objects are, for example, hyperlinks. Graphical objects, on the other hand, include images, shapes, diagrams, tables, SmartArt and WordArt. All these objects may not only be referenced by their visual and auditory characteristics such as color, size, shape, position, volume or pitch, but also require clear naming in text form. It is advisable to describe objects in the course description with a specific text.

#### ****Why is it important?****

For barrier-free work within a Moodle course, it is important that textual or graphic objects are understandable regardless of a particular sensory characteristic, such as sight or hearing. Please bear in mind that not all students can orient themselves equally well in the course, e.g. due to visual difficulties, concentration problems or sensory overload.

By clearly naming and describing textual and graphical objects, the Moodle course is accessible and provides orientation for all recipients.

#### ****How can I implement/check it?****

If you want to write a precise reference for an internal or external textual or graphical object, it is advisable to follow the steps below:

1. First, you should identify the object and ensure that it has a clear and concise name.
2. You should then describe the object in one or two sentences to convey its function and meaning. Use clear and precise language to avoid misunderstandings.
3. Next, it is advisable that you add a unique identifier, such as a number or letter, to clearly identify the object. This is particularly important if you refer to several objects on the slide.
4. Once you have the unique identifier and description of the object, you can insert the reference into the text. Use the label and description to make your reference clear and precise.

The following list contains recommended formulations for textual references to objects:

As shown/visible in the table/figure [number]...

1. As shown in [author(s), year]...
2. As described/mentioned in [slide title, page/paragraph number]...
3. As stated in [name of study, year]...
4. As shown/mentioned in the previous [table/figure, section]...
5. As shown in the data/results of [study name, year]...
6. As mentioned/said in [author(s), year, page/paragraph number]...
7. As mentioned/explained in the [section or chapter number]...
8. As can be seen in the red sphere [placement of the sphere]...

### 1.2 The use of colors is generally sparing.

#### ****What is meant by this?****

A restrained and appropriate use of colors to convey information should be aimed for. Before incorporating colors into an information medium, it is advisable to carefully consider whether and to what extent they can contribute to improving the communication of information.

#### ****Why is it important?****

For some recipients, too much color can be a distraction or disrupt the reading flow due to strong visual perception. In addition, there are recipients who cannot perceive all colors clearly or work independently of color representation. If information is conveyed exclusively through color, these recipients may miss or not understand important information.

#### ****How can I implement/check it?****

It is recommended to keep the number of colors used to a minimum in order to convey a clear and understandable message. In addition, when deciding on the use of colors, consideration should also be given to their necessity to ensure that they actually add value to the communication of information.

If colors are nevertheless used to convey information, this information should also be conveyed in other ways, such as symbols, labels or patterns (see 1.3).

### 1.3 If colors are used to convey information (e.g. in diagrams or to mark text), labels, symbols or patterns convey the same information.

#### What is meant by this?

It is recommended that information is not only represented by colors, but also by labels, symbols or patterns. This means, for example, that color AND pattern should be used in a diagram to represent a bar. For example, buttons in the colors green and red are also described with "yes" and "no". This creates opportunities for the information to be better perceived visually.

#### Why is it important?

If information is presented exclusively through colors, recipients who do not perceive all colors clearly may have difficulty understanding this information. There is a risk that information that is only conveyed via colors will be lost on such groups of people. For example, recipients with color vision deficiency have difficulty perceiving certain colors or contrasts. Colors with the same saturation can prevent full perception of what is shown and result in not all information being absorbed. Grey contrasts should also only be used to a limited extent, as recipients with colour vision problems may have difficulty recognizing certain shades of grey or differences in brightness.

Through the additional use of labels, symbols or patterns, information can be presented in multiple ways to ensure that it is accessible to groups that work independently of the color display, are distracted by bright colors or perceive stimuli very strongly.

#### How can I implement/check it?

Diagrams and other representations should be viewed in different ways to check accessibility, for example by hiding colors or changing the brightness to ensure that the information is easy to understand regardless of color.

## 2. Course

### 2.1 The selected course format is barrier-free.

#### What is meant by this?

In Moodle, you can choose the form in which the course content is to be presented. There are predefined course formats. Depending on the university, more or fewer course formats may be available. This depends on which course formats the administrators install. Basically, the following course formats are available: Weekly format, topic format, one-topic format, social format and individual activity.

The accessibility of a Moodle course format does not necessarily depend on the format itself, but on the way the course is designed. In other words, any of the Moodle course formats mentioned can be accessible as long as the course is designed to meet the needs of all students.

#### Why is it important?

### By designing an accessible course format, we ensure that the course is accessible to everyone, regardless of individual limitations or challenges.

#### How can I implement/check it?

### If the Moodle course cannot be created independently, the appropriate course format must be selected and specified when requesting a course creation. Suitable formats include, for example, topic format, compressed sections and single-topic format.

Further information on the course formats that we have tested for accessibility errors can be found in the Moodle course under "Barriers in the course formats".

### 2.2 The course is clearly structured and not overloaded.

#### ****What is meant by this?****

The structuring of a Moodle course is crucial to ensure that learners can easily understand and access the course content. The learning materials, activities and information are arranged in such a way that they are easy for students to understand and access. There is a clear hierarchy and outline to help students understand and navigate the course.

Overloading should be avoided; instead, the content should be provided in appropriate portions to prevent students from being overwhelmed. This enables better processing and absorption of the learning material as well as effective engagement with the course content.

#### ****Why is it important?****

A clear [course structure](https://openmoodle.uni-bielefeld.de/mod/page/view.php?id=1873) facilitates navigation and orientation for all students, regardless of their individual needs. Students with visual impairments, cognitive impairments or learning difficulties are particularly dependent on a well-organized course environment. They need clear instructions and a clear structure to effectively grasp the course content and focus on learning.

In addition, avoiding overload helps to reduce the cognitive load on students. Too much information or too many tasks at once can be overwhelming, especially for students with attention problems or learning difficulties. A well-structured and non-cluttered environment allows students to better process the learning material and focus on the tasks, which ultimately improves their learning performance.

#### ****How can I implement/check it?****

Here are some steps and recommendations to make the structure in Moodle effective:

1. Divide your course into clearly defined modules or lessons. Each module should cover a specific topic or learning section. This makes it easier for students to find their way around and access the relevant content.
2. If a module contains extensive information, you should use subpages to better organize the content. For example, you can have a main page for each module that provides an introduction and overview, and then create subpages for specific topics within the module.
3. Use clear and meaningful titles for modules and subpages. The titles should reflect the content or topic well so that students know what to expect.
4. Organize your course so that the modules or lessons are arranged in a logical order. Students should be able to progress from one module to the next without getting lost.
5. On the main page of the course, you can create an overview that informs students about what to expect in the course. This can include a list of modules or lessons with short descriptions and links to the individual sections.
6. Use Moodle's navigation functions to enable students to easily switch between modules and subpages. For example, use the menu block element to make the structure of the course visible.
7. Add clear instructions and expectations to each module or activity so students know what they are supposed to do.
8. Review your [course structure](https://openmoodle.uni-bielefeld.de/mod/page/view.php?id=1873) regularly and ask students for feedback. Adjust the structure accordingly to ensure that it is effective and meets the learning objectives.

### 2.3 Sections, text pages and activities are clearly named and are not repeated.

#### What is meant by this?

Within a Moodle course, there is a clear and consistent designation for sections, text pages and activities to ensure clarity and comprehensibility for students. Repetitions or ambiguous designations that could potentially lead to confusion are avoided.

#### Why is it important?

Clearly labeling sections, text pages and activities in a Moodle course is essential to creating an effective and accessible learning environment. This practice allows students to easily browse and understand the course content.

Clear naming avoids confusion and increases the efficiency of course use. Students can easily navigate to the relevant parts of the course without wasting time searching for specific information. This is particularly important for students with cognitive impairments or learning difficulties, as they can often work better with clear instructions.

#### How can I implement/check it?

Here are some best practices you can follow:

1. Make sure that you use a consistent naming convention for sections, text pages and activities. For example, if you name sections "Module 1," "Module 2," etc., stick to this naming convention throughout the course.
2. Use titles that describe the content or topic of the section or activity well. Students should be able to recognize from the title what the section is about.
3. Make sure that the titles are not repeated, unless the content is actually identical. If you have similar topics or modules in the course, add an additional label to distinguish them, as in your example "Digital accessibility in the context of higher education (1)" and "(2)".
4. If you need a clear distinction between different sections or topics, you can use numbers or letters to clarify the order or distinction. For example: "Part 1 - Introduction to the topic" and "Part 2 - Deepening the concept."
5. Do not use confusing abbreviations or acronyms in titles unless they are well understood and defined in the course context.
6. Create an overview page at the beginning of your course on which you briefly explain the structure and names of the sections and their meaning. This will help students to find their way around more easily.

### 2.4 Text fields contain a heading that summarizes the content of the text field.

#### What is meant by this?

Text or media fields are activities that are not integrated as a new page in Moodle, but appear directly on the main page. These text fields do not have an extra field in which the heading is entered. Nevertheless, it is helpful to mark text fields with a heading. Because screen reader users navigate using headings, they can also navigate to text fields in this way and thus capture content in a more targeted manner.

#### Why is it important?

Adding headings to text fields in Moodle may not be obvious at first glance, but it can make navigation and understanding much easier for students. Clear and unambiguous naming is also crucial here to ensure that the course content is well structured and understandable.

#### How can I implement/check it?

Here are some steps and recommendations:

1. If you use text fields in Moodle, you should introduce the content with a clear and meaningful heading. This makes it easier for students to understand the content and recognize what the text field is about.
2. Moodle offers formatting options that you can use to create headings in text fields. For example, you can change the text size or the text color to highlight the heading.
3. If possible, use semantic markup elements such as heading tags (e.g., <h2> for a main heading or <h3> for a subcategory). This ensures that the heading is recognized by screen readers and other assistive technologies and enables better navigation for students with disabilities.
4. Use the preview function in Moodle to ensure that the headings and text in the text fields are displayed as expected.

### 2.5 A table of contents is created for a long, extensive course.

#### What is meant by this?

Use a table of contents if you have several contents or topic sections. This enables students to find the content they need quickly. The table of contents itself should be easy to find and linked to the sections/topics.

#### Why is it important?

Creating a table of contents in a long and comprehensive course is crucial as it provides clear orientation and structure for learners.

In a large course, disorientation and confusion can easily occur as the different sections and resources may not be obvious at first glance. A table of contents acts as a navigation tool that helps students to access relevant content in a targeted manner. This saves valuable time and energy as they don't have to spend hours searching for specific information.

In addition, a table of contents supports individualized learning by allowing students to focus on those parts of the course that best suit their needs and interests. This promotes student motivation and engagement as they have a sense of control over their learning process.

#### How can I implement/check it?

You can link sections to the table of contents as follows:

1. First copy the URL of your Moodle course
2. Then go to the text field in which you created the table of contents.
3. Select the text you want to link to.
4. Then click on the link symbol in the editor bar.
5. Now enter the copied URL. Then add #section-1 for the first section, #section-2 for the second and so on.
6. For "Open link in...", set "Current window" if necessary.
7. You can then save the setting and add further links to the table of contents.

### 2.6 The activities (e.g. task, feedback, glossary) are selected in a didactically appropriate way in terms of content and method.

#### What is meant by this?

The selection of activities in Moodle requires careful consideration of pedagogical goals, student needs and accessibility. Considering these aspects will help to make the course more effective and provide an inclusive learning environment for all students.

Only use complex activities if they make didactic sense. Avoid unnecessary complexity. The "simpler" the activity is, the more likely it is that students will be able to use the activity without barriers. For example, H5P is an activity that can be used in a variety of ways through interactivity. However, many of the interactions for students who use a screen reader or control with a keyboard are not possible or only possible with difficulty because the usability is not given.

#### Why is it important?

The careful selection of activities, based on their content and didactic method, is crucial to ensure an effective and efficient learning process. Selecting activities that match the content of the course ensures that students have relevant and meaningful learning experiences. In addition, the didactically meaningful selection of activities promotes a diverse learning environment. Students have different learning styles and preferences, and by using different activity types, the needs of a wide range of learners can be better met. This helps to promote student motivation and engagement. In addition, the choice of activities helps to achieve the learning objectives efficiently. When activities are well aligned with learning objectives, the learning process becomes more structured and focused, which keeps students focused on acquiring the required knowledge or skills.

#### How can I implement/check it?

Only use complex activities if they make didactic sense. Avoid unnecessary complexity. The "simpler" the activity is, the more likely it is that students will be able to use the activity without barriers. For example, H5P is an activity that can be used in a variety of ways through interactivity. However, many of the interactions for students who use a screen reader or control with a keyboard are not possible or only possible with difficulty because the usability is not given.

Here are some steps and recommendations to ensure that the chosen activities make sense both in terms of content and methodology and take accessibility into account:

1. Define clear learning objectives for your course. Based on these goals, you can determine which activities are best suited to achieve these goals. Activities should fulfill an educational purpose and not just be introduced for technical reasons.
2. Think about the different needs of your students. Take into account different learning styles, abilities and prerequisites. Activities should be selected so that they are accessible to the broad target group.
3. Observe the principles of accessibility when selecting activities. Avoid complex activities or technologies that are difficult to access for students with disabilities. Check that the selected activities are screen reader compatible and keyboard friendly.
4. If possible, choose simpler activities and tools that are easily accessible to the majority of students. For example, simple tasks or discussion forums might be more effective than complex interactive activities.
5. Regularly review the effectiveness of the chosen activities and adjust them if necessary to better achieve the learning objectives or improve accessibility.

### 2.7 The question types selected in a didactically sensible way according to content and method are as barrier-free as possible.

#### What is meant by this?

The questions asked should be designed within the course material so that they are easily accessible and understandable to all students, regardless of their individual abilities or challenges. This includes the use of question types that minimize cognitive load and provide clear instructions to avoid confusion.

#### Why is it important?

Not all question types in Moodle can be used equally barrier-free by all students. For example, students who use screen readers (including blind students), students who navigate using the keyboard or students with mental illnesses may have problems using some question types. It is therefore important to think about which question types should be used beforehand. Attention should be paid to didactic appropriateness and accessibility.

The deliberate selection of accessible question types in Moodle is an important step to ensure that all students have equal access and can participate successfully.

#### How can I implement/check it?

Here are steps and recommendations to ensure that the chosen question types are both didactically useful and accessible:

1. Start by analyzing the learning objectives and content of your exam. What kind of knowledge or skills do you want to test? Based on these considerations, select the question types that best suit your objectives.
2. Find out about the accessible use of the various question types in Moodle. Some question types can be problematic for students with certain impairments, such as visual impairments or motor impairments. Check whether the question types you have selected are accessible for all students. A list of question types that are not equally accessible for all students can be found in chapter 7.2 of the book on e-exams.
3. Complex question types such as drag-and-drop questions or hotspot questions can be problematic for students with certain impairments. Try to avoid such complex question types if they are not absolutely necessary.
4. Moodle offers a variety of question types, including multiple choice, short answer, true/false and more. Some of these question types tend to be more accessible than others. Consider using accessible question types as a priority.
5. Before you go live with your exam, conduct test runs and gather feedback from a range of students, including those with disabilities. This can help to identify and address potential barriers at an early stage.
6. Consider the possibility of offering alternative examination formats, especially for students with special needs. This could mean offering oral exams, written reports or other accessible examination methods.
7. Provide clear guidance and resources to help students use the exam platform in an accessible way. This may include the use of screen readers or other assistive technologies.

## 3. Text

### 3.1 The font is sans serif (e.g. Arial, Helvetica), not too thick or too thin and emphasis (e.g. bold) is used sparingly.

#### What is meant by this?

It is advisable to choose a sans serif font that is neither too thick nor too thin to ensure optimum legibility. The main focus here is on recognizing and distinguishing individual letters and words.

Serifs are small decorations or lines that are attached to the ends of the letters. Sans serif fonts have clear and smooth lines and appear more modern and simple than fonts with serifs.

It is important that the stroke width of fonts is between 10% and 20% of the center length to ensure sufficient contrast. Fonts without serifs, where the difference between the thickness of the lines of the letters is small, are best suited and correspond to the "Normal" or "Regular" weights. Fine and bold weights as well as fonts with high line weight contrast should be avoided, especially when formatting the entire text.

A suitable sans serif font is already set in the Moodle editor. This should be used accordingly. When communicating content, the focus should be less on aesthetics and more on accessibility.

#### Why is it important?

Sans serif fonts are easier to decipher, especially for recipients who have difficulty following the reading flow or recognizing and reading the text. This is because fonts with serifs (e.g. New Times Roman) can cause letters to blur into one another or be more difficult to read for some recipients, as the serifs vary the letter shapes more. In addition, fonts that are too thin or too thick can impair legibility, especially for recipients with impaired vision.

#### How can I implement/check it?

You can remove highlighting as follows:

1. Select the relevant text.
2. Under "Format", select "Remove formatting".

Please note that font formatting such as font size is not offered in all text editors in Moodle. When copying from other programs, pay attention to possible formatting differences and remove them if necessary.

### 3.2 The text is left-aligned.

#### What is meant by this?

A left-aligned text is aligned to the left edge of the page. This means that all line beginnings are vertically aligned and the line ends run out freely on the right. In principle, texts in Moodle are already left-aligned. However, if texts are copied and pasted from other programs (e.g. Word), the formatting is also copied. Text that is not left-aligned should therefore be changed accordingly.

#### Why is it important?

Left-aligned formatting helps recipients who have difficulty following the flow of reading, as the lines of text start at a common left margin and are therefore easier to follow. If the lines are of different lengths, it is easier to jump from one line to the next with the eyes. As justified text causes irregularly large spaces between words and more frequent word breaks, especially in narrow columns, left-aligned justified text is preferable.

#### How can I implement/check it?

Select the relevant text. In the editor under "Format - Align" you will find the settings for the alignment of the text, select "Left" here.

### 3.3 Lists and enumerations are created with list and enumeration formats. Only content that is actually a list/enumeration is output as a list/enumeration.

#### What is meant by this?

List or enumeration formats are special formatting options that can be used to create a list of elements or items.

In order to improve readability and comprehensibility, lists should be divided up sensibly. For example, advantages could be listed in one list and disadvantages in another. This structure helps recipients to grasp and process the information more easily.

Overall, when using lists and enumerations, you should always ask yourself whether it is really necessary and sensible to use this formatting and whether it helps the recipient to grasp the content.

#### Why is it important?

The use of manually generated bullets may result in the list not being recognized as a coherent list and therefore inaccessible. If a list is not read out correctly by voice output and screen readers, this can lead to recipients having difficulty recognizing the number of items in the list or possibly not understanding it completely or in context. As a result, important information may not be correctly understood. With the help of list and enumeration formats for lists, screen reader recipients can perceive them as a list and interpret them coherently.

#### How can I implement/check it?

To mark up a list/enumeration correctly, proceed as follows:

1. Select the text that you want to have marked as a list/enumeration.
2. Click on the three dots ("...") in the editor.
3. Then select the corresponding symbol to format the text.

Alternatively, enter the text in the editor accordingly:

1. Write "1." (first) or "-" (minus sign) at the beginning of the list/enumeration element.
2. Write the text.
3. Press the Enter button. The formatting is now set automatically.

### 3.4 Texts have a sufficient contrast ratio to the background. For large texts from 18 pt. or bold texts from 14 pt. at least 3:1. 4.5:1 for all other texts.

#### What is meant by this?

The contrast ratio refers to the relationship between the brightness of the text and the background on which it is displayed. A high contrast ratio makes the text easier to read. A sufficient contrast ratio is achieved when the text color stands out clearly from the background color. Black text on a white background (or vice versa) represents the optimum contrast. If other colors are used, the contrast ratios must be checked.

The reason for these minimum requirements is that texts with poor contrast ratios cannot be properly recognized/read in poor lighting conditions or with visual impairments.

#### Why is it important?

A sufficient contrast ratio between text and background color is of great importance, especially for recipients with impaired vision. If the contrast is not high enough, the text can be difficult or impossible to read, resulting in barriers to accessing information.

For example, recipients with color blindness have difficulty distinguishing between certain colors. A sufficient contrast ratio helps to ensure that they can still read the text. If the contrast ratio between the text and the background is low, it can be more difficult to read the text, even if it is large.

Sufficient contrast not only makes it easier for recipients with visual impairments to perceive content. Recipients who work in an environment with poor lighting conditions, have a printout in black and white or are watching a presentation via a projector also benefit from a high contrast ratio. Sufficient contrast ensures that the content is clearly and distinctly recognizable, making it easier to absorb and process information.

#### How can I implement/check it?

You can use various online tools or programs to check contrasts. These often contain "color contrast" in their name. You can use these tools to check the selected font color in comparison to the selected background color. If the contrast is not high enough, adjust the colors according to the recommendations.

### 3.5 Texts are formatted using paragraph formatting ("Paragraph"). Consecutive blank lines are not used to generate text spacing or paragraphs.

#### What is meant by this?

There are fewer options for formatting text in Moodle. For example, there are only a few ways to format text into a specific form using paragraph formatting. However, it is important to format text that is not a heading as a "paragraph" if it is not already.

It is also important not to generate more than one blank line between paragraphs of text. Not even for visual purposes. This is because students who use a screen reader will hear these blank lines read out as e.g. "New line" or "Blank line" (the output depends on which screen reader or voice output is used). This is disruptive to the reading flow and should therefore be avoided.

#### Why is it important?

The use of paragraph formatting ("paragraph") for structuring texts is important as it improves the consistency and readability of content. This ensures that paragraphs are clearly delineated and students can grasp the text more easily, which is particularly beneficial for recipients with reading or concentration problems.

Avoiding consecutive blank lines to generate text spacing or paragraphs is also of great importance as it enhances the visual clarity and aesthetics of the text. It helps to maintain a clean and professional formatting that supports readability for all students, including those with visual impairments.

#### How can I implement/check it?

You can use paragraph formatting by clicking on "Paragraph" under "Format" in the editor under "Blocks".

## 4. Heading

### 4.1 Headings are created in the text editor using style sheets. For example: "Heading 3 (h3)". There is only one h1 heading.

#### What is meant by this?

When creating headings, style sheets should be used instead of highlighting them manually using bold print or underlining. Headings range from large to small. Behind these are designations such as "h1" or "Heading 1" (for the largest heading) and "h6" or "Heading 6" (for the smallest heading). "Heading 1" is generally only used once per page - in the Moodle course this is the page title. No other heading may have this format.

#### Why is it important?

The use of paragraph formatting and clear structuring in documents is crucial as it enables screen readers and speech output to interpret and read the content correctly. This is particularly important as screen reader recipients often rely on headings to navigate documents and find their way around the page. A clear structure also facilitates the accessibility of documents for recipients with visual impairments.

#### How can I implement/check it?

In the text editor, you will find the heading formatting under "Format" and "Blocks". The corresponding headings can be selected there. A toolbar also appears when you select the text. You can also select the headings there.

### 4.2 If there are subheadings, there is every level without skipping a level (h1-h6). The heading order is consistent.

#### What is meant by this?

(Sub)headings are available from large (h1) to small (h6). This formatting not only determines the size of the heading, but also the reference to the text and to each other. For example, the h1 heading summarizes the entire text on the page. H2 divides the text into chapters, for example, and h3 divides it into sub-chapters. The heading formatting structures the text. If subheadings are used, all levels of the hierarchy should be considered in order to avoid a gap in the structure.

#### Why is it important?

The order of the heading levels and therefore the correct labeling (from h1 to h6) is particularly important for students who work with a screen reader. You can use the headings to quickly find your way around a course and jump to the relevant section if necessary.

A clear and stringent hierarchy of headings is important to ensure a logical and structured presentation of the content and thus facilitate orientation within the course for all students.

#### How can I implement/check it?

You can select the heading formatting in the text editor under "Format" "Blocks".

It should be noted that Moodle already uses heading formatting in its programming. Unfortunately, the order of these is not always consistent.

Please also note that when copying texts from other programs, the headings may have to be reformatted so that the heading order remains correct.

### 4.3 On a text page, the first heading is labeled h2. If headings other than the default ("Name") are used within the description of an activity or in the material book, these begin with h3. In a text field (visible on the course page), the first heading is marked with h4.

#### What is meant by this?

In a nutshell, Moodle is a programmed surface on which you can work. For this reason, there is pre-formatting over which course creators have no influence. This also includes headings. Depending on the course page, heading formatting is already predefined and can no longer be used in the self-created text.

#### Why is it important?

Marking up headings with the corresponding HTML tags (e.g. h2, h3, h4) is important to ensure a consistent and structured presentation of content. This facilitates navigation and understanding for all recipients, but especially for recipients with visual or cognitive impairments.

The use of h2, h3 and h4 tags depending on the hierarchy of headings promotes accessibility by enabling screen readers and assistive technologies to efficiently read the text aloud and correctly interpret the hierarchy of information.

This is particularly advantageous for students with visual impairments or learning difficulties, as they can find a clear and comprehensible structure in the course materials and can process the learning material better.

#### How can I implement/check it?

The following must be observed during implementation:

On a text page there is only the page title, which is marked with h1. Therefore, the headings in the text can start with h2 (if this heading is enabled).

In the activities or in the book, further headings can be added in addition to the heading or the name of the activity. As a rule, these should be marked with h3. If headings are used in the text within a book (as in the case of this book), they begin with h5.

As a text field is not a separate (sub)page and is therefore directly visible on the course page, the first heading must start with h4. This is because the page title is pre-formatted in h1 and the sections in h3.

To check which headings are already in use, take a look at our tips for checking accessibility.

### 4.4 The headings are numbered exclusively with Arabic numerals ("1"), not with Roman numerals ("I") and do not exceed the decimal structure of level 6 (e.g. "1.1.2.3.4.5")

#### What is meant by this?

When numbering headings, make sure that they are marked with Arabic numerals (1,2,3...) and not with Roman numerals (I, II, III...), because Roman numerals are often created by using letters. These are also read out like letters to students who use a screen reader. Numbering with Roman numerals is therefore difficult for them to grasp and can lead to confusion. In addition, the use of Arabic numerals represents the international standard for the representation of numbers and is used for the communication and exchange of information in different countries and languages.

The decimal structure of headings, e.g. when subdividing chapters into subchapters, should not exceed level 6 for the sake of clarity. This means that sub-headings and any numbering should not be overstretched, as otherwise there will be a lack of clarity. There is also a restriction in Moodle: the lowest heading level is h6.

#### Why is it important?

A missing or opaque hierarchy can impair readability and therefore accessibility. In addition, too many subheadings can quickly lead to confusion and make orientation within the document more difficult.

#### How can I implement/check it?

The number appears before the text of the heading. During and after the creation of the numbered headings, check that the numbering has been carried out using Arabic numerals only.

## 5. Link

### 5.1 URL does not appear as plain text in the body text. Instead, hyperlinks are inserted, clearly named and easy to understand.

#### What is meant by this?

Links in the form of URLs ("https://...") should not be inserted into the text. This is confusing, unnecessarily lengthens the text and there is no insight into what exactly is behind the link.

Furthermore, links that access internal or external pages should always be named clearly and comprehensibly. This means that the following should not be used: "Click here for more information" - this text lacks any indication of what information is involved and where the link leads to. It is better, for example, to say "You can find more information about compensation for disadvantages on homepage XY".

#### Why is it important?

Clear and precise naming of hyperlinks is very important to improve the accessibility of websites. If the URL is not replaced by a hyperlink, screen readers and speech output will read out the complete URL (starting with "http"). It can therefore be very frustrating for screen reader recipients if the content of the link is not clear and the entire URL is read out instead. This can significantly impair the use of the document and access to a website.

#### How can I implement/check it?

To add a link to a text, you can select the text. A formatting bar will appear. There you will find a link symbol. If you click on this, a blank line will appear in the bar in which you can enter or copy the link. After you have pressed Enter, the link is inserted in the appropriate place.

You can also click on the link symbol in the menu bar. There are further options there. You can edit the text to be displayed and set whether the link should open in the current or a new window.

### 5.2 If a link opens another program (e.g. browser, e-mail program), this is indicated in the link text. Example: "Contact address" (opens e-mail program)".

#### What is meant by this?

Some links do not lead to other websites, but to e-mail programs or PDF readers, for example. It is particularly important for screen reader users to know that executing the link opens new programs. This is because if a new program opens unnoticed (e.g. because the person cannot see), the focus is placed on the newly opened program without the person's knowledge. However, the person does not know that the link does not open within the browser. If the link indicates what happens when the link is executed, the person is prepared and can find their way around more quickly. The same applies to documents or other files that are downloaded when the link is executed.

#### Why is it important?

Specifying the format or program in the link text can help recipients to better understand the content of the link and decide whether they want to click on it or not.

It is particularly important for screen reader and speech output recipients to understand the content of the link and the associated context. By specifying the format or program in the link text, screen reader recipients can better recognize that clicking on the link will lead to the opening of another program and thus a new window, for example, and can adapt to this.

#### How can I implement/check it?

You can enter a precise description for a link either in the menu bar under Insert and the Link tab or by clicking directly on the link symbol in the menu bar. A window opens which contains the "Text to display" function. At this point, it is important to leave notes on the pages or documents hidden behind the link.

An example of how a link can be correctly labeled: "How do I make my Moodle course as accessible as possible (Word)". This note is sufficient to inform you that there is a document behind the link and that it may be downloaded.

### 5.3 Links open in the same window, not in a separate one.

#### What is meant by this?

If links in a text or on a web page are opened in the same window, this means that when recipients click on a link, the content or the target page of the link is loaded in the current browser window or tab in which the original page is located. In other words, the original page is replaced by the target page of the link.

In contrast, links that are opened in a separate window would result in the target page being loaded in a new browser window or tab, while the original page remains open.

Please note that links are opened within the same window. The reason for this is that students who use a screen reader cannot quickly navigate back to the Moodle course by clicking "Back" when the link is opened in a new window.

#### Why is it important?

Screen reader software used by recipients with visual impairments can interpret content more effectively and consistently when links are opened in the same window. This allows for smoother navigation and a better understanding of the website content.

Preventing pop-up windows or new browser tabs, which can occur when opening links in a separate window, also minimizes potential confusion and helps all recipients to keep track of the navigation on the website.

#### How can I implement/check it?

To ensure that the link opens in the same window, select the link. Click on the "Insert/edit link" icon in the menu bar. You can set whether the link should open in the current or a new window. Select "Current window" and close the menu setting.

If a link is to be opened in a new window, there must be a note in the link. For example: "Information about XY on page XY (new window)".

## 6. graphic

### 6.1 Graphics contain a short, concise alternative text (max. 125 characters). Graphics with no substantive meaning are marked as decoration.

#### What is meant by this?

Graphics that contain important content require an alternative text (ALT). This alternative text is used to describe the graphic for those who cannot see it. In Moodle, the length of the alternative text is limited to 125 characters. It is therefore important that the connection to the surrounding text content is clear.

If the graphic has no meaning in terms of content, i.e. is merely "decorative", it must be marked as decorative.

#### Why is it important?

An appropriate alternative text for an image is important as it enables all recipients to understand the content of an image. If an image has no alternative text or the alternative text is insufficient, the image becomes invisible to screen reader and speech output recipients. This means that these recipients miss out on important information that could be contained in the image.

An appropriate alternative text describes the image briefly and concisely and conveys how, for example, an image relates to the content of the document. If the image contains important information that is not or cannot be presented differently in the text, it is important to include this information in the alternative text so that it is recognized by screen readers and voice output.

#### How can I implement/check it?

When inserting a graphic via the menu bar in the text editor, you can enter an alternative text. Use the "Description for someone who cannot see the image" field for this.

Note: In the newer Moodle versions, it is not possible to upload a graphic without alternative text or labeling as a decorative graphic.

If the graphic has no meaning in terms of content and only functions as "decoration", it must be marked as decorative. The graphic is then ignored by the screen readers and is not read aloud. When inserting the graphic via the menu bar, you will find a checkbox "Image for decoration only" below the text field. Select this to mark the graphic as decorative.

Please note that it is not sufficient to write the texts "empty" or "decorative" in the alternative text. This would be read out by the screen readers and is unnecessary.

### 6.2 Complex graphics (e.g. diagrams, comics) have a detailed descriptive text alternative.

#### What is meant by this?

A detailed descriptive text alternative for an image contains a detailed description of the image content and its significance for the document. In contrast to an alternative text, which only contains a brief summary of the image content, a full descriptive text alternative should convey all the important details of the image that are necessary for the image to be understood. A full descriptive text alternative should use clear and concise language and include all the important information of the image, including colors, shapes, texts, recipients, locations and actions depicted in the image. However, the text should not be redundant or superfluous and should be limited to the relevant information contained in the image. This text alternative or a link to this alternative should be in close proximity to the graphic.

#### Why is it important?

The use of full descriptive text alternatives is an important aspect of digital content accessibility as they ensure that visually impaired users can understand the content of complex images and diagrams. A detailed descriptive text alternative can be particularly important if the image contains important information that cannot be presented in any other way in the text of the document. As complex images are usually difficult to describe, it is particularly important that they are provided with a precise and detailed text alternative so that everyone can understand the content of the image.

An example of a detailed descriptive text alternative for a complex picture could look like this: "The picture shows a group of recipients sitting at a round table and discussing. In the middle of the table is a cake with "Happy Birthday" written on it. The recipients are walking around the table, smiling and raising their glasses to toast the birthday. The room is decorated with balloons and garlands and you can see a band playing music in the background." The more important the details are for understanding the content, the more detailed they need to be described.

#### How can I implement/check it?

A descriptive text alternative should contain a precise and accurate description of the visual element (e.g. image, diagram, graphic) and convey its significance for the content of the document. For example, a link to a Word document containing a detailed descriptive text alternative can be added below images, charts or diagrams. Here are some steps that can help you create a good descriptive text alternative:

1. Think about which visual element is to be described and what information it contains.
2. Describe the visual element in as much detail as possible to ensure a clear picture of what is shown in the image or diagram.
3. Consider how the visual element fits into the context of the document and what information it conveys. Make sure that the text alternative helps the reader to understand the meaning of the visual element in the context of the document.
4. Use clear, simple language and avoid technical terms or abbreviations that may be difficult to understand.
5. Avoid repeating information that already exists in the text of the document.

There are a few steps you can take to check your text alternatives:

1. Check whether the text alternative contains all the important information of the visual element.
2. Make sure that the text alternative is understandable and easy to read.
3. Check whether the text alternative makes sense in the context of the document and has a clear connection to the text or other visual elements.
4. Ask someone who does not know the information of the visual element to read the text alternative and check if they can understand the meaning and purpose of the visual element.
5. Check that the text alternative is not redundant, i.e. that it does not repeat any information already in the text.

### 6.3 Graphic information-bearing elements (e.g. lines, adjacent areas) have a minimum contrast of 3:1 to the background.

#### What is meant by this?

Graphic information-bearing elements include lines or areas that are used to delimit and/or differentiate information. These should always have a sufficient contrast ratio to the background and the text.

#### Why is it important?

For recipients with visual impairments, sufficient contrast between graphic elements and the background can be crucial in order to recognize them. Insufficient contrast makes perception more difficult and can lead to misinterpretation. It is therefore important that graphic elements such as images or buttons have a sufficient minimum contrast.

Sufficient contrast not only makes it easier for recipients with visual impairments to perceive content. Recipients who work in an environment with poor lighting conditions, have a printout in black and white or are watching a presentation via a projector also benefit from a high contrast ratio. Sufficient contrast ensures that the content is clearly and distinctly recognizable, making it easier to absorb and process information.

#### How can I implement/check it?

You can use various online tools or programs to check contrasts. These often contain "color contrast" in their name. You can use these tools to check the selected foreground color in comparison to the selected background color. If the contrast is not high enough, adjust the colors according to the recommendations.

### 6.4 No graphics are used to display text (font graphics).

#### What is meant by this?

Type graphics are graphics that consist entirely of text characters and symbols and do not contain images, photos or other visual elements. Type graphics are often used for the design of logos, posters, banners and other marketing materials.

It is recommended not to display text using font graphics. Instead, the text should be typed and formatted as actual text. If font graphics are still used, it is necessary to provide an alternative text that describes the content of the graphic. If the font graphics are redundant and contain the same text as the surrounding text, they should be marked as decorative.

#### Why is it important?

The use of font graphics can lead to limitations in the accessibility of digital content, as they cannot be recognized by screen readers or voice output for recipients with visual impairments. If the text is entered and formatted as real text, it can be read more easily by assistive devices. However, if written graphics are used, it is important to provide alternative text to ensure that the content of the graphic can be understood by all recipients.

#### How can I implement/check it?

In principle, font graphics (images that represent text) should be avoided. In principle, font graphics should be avoided. If a font graphic must be used, an alternative text containing the same content as the font graphic must be stored. The same procedure as in chapter 6.2 should be followed here.

### 6.5 No animated graphics are used.

#### What is meant by this?

Animated graphics in the form of GIF files should not be used in a Moodle course. Animated graphics or GIFs (Graphics Interchange Format) are file formats for graphics that can play a sequence of images in a loop to create a short animation. The loop function means that GIFs are played repeatedly until the person viewing them closes them or scrolls further. Still images can also be converted to GIF format, but this reduces the quality considerably.

#### Why is it important?

The use of flickering animations should not be used in the design of accessible digital content. Playing in a loop can be very distracting and annoying. As a rule, animated content does not offer the option of pausing or stopping the animation. This makes it difficult for recipients with concentration difficulties, for example, to grasp the content. In addition, fast movements or flickering effects can trigger seizures in recipients with photosensitivity.

#### How can I implement/check it?

To explicitly avoid the use of GIFs in your Moodle course, you can manually check the content and ensure that no GIFs are present.

## 7. Video and audio

### 7.1 Uploaded videos can be switched on and off and do not play automatically.

#### What is meant by this?

In Moodle it is possible to upload videos that play automatically. However, this should be avoided. The uploaded videos should be individually operable and be able to be switched on and off independently. In addition, videos (as well as graphics and animations) should not flicker, i.e. they should not flash more than three times per second.

#### Why is it important?

When videos start automatically, recipients with visual impairments cannot find and stop the video immediately. Until they have found the relevant function, they hear the sound of the video and the voice output of their screen reader. It is also important for other recipients that videos can be operated individually and adjusted to their own needs. Otherwise, the automatically playing sound can be very irritating and impair the ability to work properly. In addition, fast movements or flickering effects can trigger seizures in recipients with photosensitivity.

#### How can I implement/check it?

To deactivate the "Play automatically" option in the advanced settings in Moodle, you must follow the steps below:

1. Go to the section or activity for which you want to deactivate automatic playback.
2. Click on the pencil icon (Edit) next to the activity or section.
3. Scroll down until you reach the advanced settings. In these settings, you will find the option "Play automatically".
4. Select "Play automatically" and change the setting to "No" or "Disabled" to switch off automatic playback.
5. Don't forget to click on "Save changes" or "Update" at the bottom of the page to save your settings.

### 7.2 Provided videos with relevant auditory content contain a subtitle.

#### What needs to be done?

Provided videos should contain subtitles and the spoken word should not only be audibly perceptible, but also run in written form in the video. Subtitles are helpful in many situations: if listening is not possible at the time of reception, if the content must or can be absorbed primarily visually, if the sound is not of good quality or to break down language barriers.

#### Why is it important?

Subtitles are important because there are recipients who primarily absorb video content visually, cannot hear or listen at the time of viewing, have no audio output, whose native language is not German or who wish to copy or search the content of the audio track. Subtitles enable these recipients to understand the content of the video and make it accessible, regardless of their hearing ability, language skills or the presence of an audio output. Subtitles also provide a visual representation of the spoken content, making it easier to understand and receive.

#### How can I implement/check it?

When inserting videos via the text editor (via the menu bar via "Insert" "Multimedia" or by clicking directly on the multimedia symbol), the URL for the subtitle can be inserted in addition to the video URL.

When generating subtitles, make sure that they are displayed in one line, sufficiently large and at a moderate pace to the spoken text. In addition, the display of who is speaking and meaningful sound events (such as information-carrying noises, laughter, applause) may need to be added.

### 7.3 Videos have an alternative form of presentation: either an audio description or a full text alternative.

#### What is meant by this?

If videos contain relevant visual content, these should be provided with audio description or full text alternatives. The audio description describes the most important visual elements and information that are not included in the main audio track. A full text alternative provides complete descriptions of all visual information, such as actions and expressions.

The alternative form of presentation can be provided in the video itself (audio description) or as an extra document for downloading and on another website (e.g. a transcript).

#### Why is it important?

For many people, audio description and full text alternatives are an essential tool for gaining access to visual media. Audio descriptions and full text alternatives are particularly helpful for those who are unable to absorb or process visual content, such as visually impaired or blind people. In addition, an alternative form of presentation such as a transcript has the advantage that the content is available separately if there are problems playing the videos. It can also help students to absorb the content better by presenting it in a variety of ways. Students who have problems concentrating and listening attentively for longer can also benefit from this.

#### How can I implement/check it?

If you decide to use audio description, you should familiarize yourself with the most important aspects. The following steps should be observed:

Content analysis: The first step in creating an audio description is to thoroughly analyze the content. The video is viewed several times to identify the key visual elements that need to be described. This includes character actions, facial expressions, scene transitions, on-screen text and other important visual elements that contribute to the narrative or overall understanding. Detailed notes are made and a comprehensive list of visual elements to be described is created.

1. Scripting: Once the content analysis is complete, a script is written that concisely and clearly describes the identified visual elements. The script complements the existing dialog and audio without detracting from the original audio. It is important to use simple, easy-to-understand language and avoid jargon or complex terms. The script focuses on the most important visual elements and ensures that listeners can follow them easily. Complex actions or scenes can be broken down into smaller, easier to understand sections. The script is written in the present tense to convey a sense of immediacy and better engage the listener.
2. Recording: Once the script has been completed, the audio description is recorded. Professional narrators or an experienced audio description artist record the description in a clear, distinct voice. It is important to provide a well-structured script and clear instructions regarding the tone, tempo and style of the audio description. This ensures that the recording process runs smoothly and efficiently, resulting in a high-quality audio description.
3. Editing: After recording, the audio description is edited and synchronized with the original content. Care is taken to ensure that the descriptions fit into the natural pauses in the dialog and audio. The timing or wording of the audio description may need to be adjusted in order to achieve a seamless integration with the original content. The audio description is also checked for inconsistencies, errors or unclear descriptions. Problems are fixed to ensure that the final product is professional and of high quality.
4. Quality assurance: The final step in creating the audio description is to review the finished product to ensure that it meets the required quality standards and accessibility guidelines. Feedback from visually impaired users or accessibility experts can be obtained to identify potential problems or areas for improvement. During the quality assurance process, care is taken to ensure that the audio description is clear, accurate and informative. Any issues identified are rectified and the audio description is revised and retested until it meets the desired quality standards.

All in all, a well-written script forms the basis for a successful audio description. Detailed information and guidelines can be found on the Amberscript website.

Alternatively, you can offer a full text alternative: All information is provided in text form. Full descriptions of all visual information are provided, including the visual context, actions and expressions of the protagonists. In addition, non-speech sounds (laughter, off-screen voices, etc.) are described and transcripts of all dialogs are provided. The full text alternative can be made available for download in a Word or PDF document.

### 7.4 Videos and audio files have a meaningful title.

#### What needs to be done?

The media files used should be named in such a way that they clearly and comprehensibly reflect their content or topic.

#### Why is it important?

A meaningful title for videos and audio files is of great importance to ensure that they are easier to find and can be distinguished from other content. This makes navigation much easier for all recipients, especially those who use screen readers.

#### How can I implement/check it?

In Moodle, there is an easy way to set titles for multimedia elements such as videos. For example, if you insert a video under the "Multimedia" section, you will find the option to specify a title in the "Display options". Here you should enter a clear and descriptive title that reflects the content of the video. This allows users to quickly identify and select the desired material without having to wade through unlabeled or poorly named files.

### 7.5 Embedded audio clips have a transcript (as text on the page or in a separate document or on an external website).

#### What is meant by this?

A transcript is a written recording or text document that reproduces the content of a spoken audio or video. It contains the full text of the spoken words in order to make the content accessible to all recipients.

The transcript can be displayed as text in the Moodle course itself, in the notes, in a separate document or as a link to an external website. The transcript contains the full text of the audio clip so that recipients who prefer to absorb the content visually can read and understand it.

#### Why is it important?

Recipients who prefer to record auditory content visually, cannot hear or listen at the time of reception, do not have an audio output, whose native language is not German or who wish to copy or search the content of the audio clip benefit from a transcript. The transcript enables these recipients to understand and access the content of the audio clip, regardless of their hearing ability, language skills or the availability of an audio output.

#### How can I implement/check it?

There are various ways to create transcripts. In addition to the manual method, there are also specialized software solutions that support the transcription of audio and video recordings. These can simplify the frequent correction processes, navigation in the recording and adherence to formal transcription rules.

"Express Scribe" is a free digital transcription player that allows you to configure the audio playback speed to match your typing skills. With "f4" you can also conveniently put audio recordings on paper. The tool has a return interval so that you can hear the previously heard seconds of the recording again when you pause. The interval can be adjusted manually. The finished transcript can be provided as text in the Moodle course itself, in the notes, in a separate document or as a link to an external website.

### 7.6 Audio recordings (>3 minutes) can be paused or stopped and the volume can be adjusted.

#### What is meant by this?

Audio recordings that are longer than three minutes should be able to be paused, stopped and otherwise regulated by recipients.

#### Why is it important?

Such individual operating functions are important so that recipients are not overwhelmed by a possible sensory overload and can decide for themselves when they want to play the content.

Flexibility in controlling the playback of audio files is particularly important for recipients with different needs and preferences. When audio files play automatically and run in a loop, this can severely impact the experience of screen reader users. These tools are designed to read out web content, and if an audio file is playing at the same time, this can cause confusion and affect the perception of the information. In addition, screen reader users have difficulty finding the audio file on the Moodle site and may have difficulty stopping or pausing it as the auto-play mode makes it difficult to navigate.

#### How can I implement/check it?

When inserting an audio file into Moodle via the text editor ("Insert", "Multimedia", "Audio"), it is imperative that the "Loop" and "Play automatically" functions are deactivated. This ensures a barrier-free and user-friendly environment for all learners, regardless of their individual requirements and aids.

## 8. Table

### 8.1 Tables are created with the table settings of the editor. If tables are copied from other documents, their table properties are checked.

#### What is meant by this?

Tables in Moodle should ideally be created using the integrated table function of the text editor instead of using tab keys, blank lines or self-made graphic elements.

If tables are copied from other documents, it is important to check the table properties as they may not match the requirements of the current document. By carefully checking and adjusting the table properties, potential formatting issues and barriers that could affect the accessibility and readability of the table can be avoided.

#### Why is it important?

The correct creation and checking of table properties in Moodle are of great importance. This helps to ensure that tables are accessible and user-friendly. When tables are created using the editor settings, formatting conflicts are avoided and the table structure remains consistent. This facilitates readability and understanding for all recipients, including those who use screen readers or rely on other assistive technologies.

Overall, the correct handling of table properties helps to ensure that information in documents can be communicated effectively to all recipients.

#### How can I implement/check it?

The following instructions refer to the use of the TinyMCE editor in Moodle:

1. If you are editing or creating content, click on the text field or section in which you want the table to appear to open the text editor.
2. In the text editor, you will find the "Table" option. Click on it to create a table. A dialog box opens in which you can specify the number of columns and rows you want by adjusting the grid.
3. Once you have created the table, you can click on the table to select it. Then click on the table icon or the "Table properties" option in the editor. Here you can adjust the formatting of your table, including alignment, borders, background color and more. Make sure you add all relevant information such as column headings and table headers.
4. If you copy tables from other documents, e.g. from Microsoft Word, into Moodle, it is extremely important to ensure that the table and its properties are transferred correctly. Formatting problems can occur when copying and important information such as table headings or cell characteristics can be lost.

Pay particular attention to the following:

* Check whether the table title has been transferred correctly. This should describe the table and be defined in the table properties.
* If your table has a header row (e.g. column headings), make sure that this information is retained when copying, as it is very important for barrier-free use and the clarity of the table.

By using the built-in table feature of the Moodle editor and paying attention to formatting issues when copying tables from other documents, you will help ensure that your Moodle content is user-friendly and accessible. This benefits all learners and makes it easier to navigate and access information.

### 8.2 The first row and, if applicable, the first column of the table is marked as a "header row".

#### What is meant by this?

The first row or first column are specially marked to emphasize their particular function. In practice, this means that the first row of the table is normally used for headings or descriptions, while the first column is reserved for key information or categories. This marking as a "header row" serves to make the table accessible and user-friendly.

#### Why is it important?

It is important that row and column headings in tables are marked as such. This enables screen reader users to recognize where they are within the table (orientation aid).

Incorrect formatting of tables can result in the content and structure of the table being unclear or incomprehensible to screen reader recipients. For example, if column or row headings are not marked as "Header" or "First column", the screen reader cannot interpret the structure of the table correctly and cannot understand the sorting within the table. As a result, important information may be lost or misunderstood.

 If the header of a table is not repeated on every page, this can lead to confusion and misinterpretation of the content.

#### How can I implement/check it?

If you want to format the first row as column headings, move the cursor to the first row. Then go to "Table", "Row", "Row properties". Enter "Header row" under "Row type".

If you want to format the first column as the header of the individual rows, select all the columns that you want to format. Then go to "Table", "Cell", "Cell properties" and select "Header cell" under "Cell type" and "Row" under "Range".

### 8.3 Cells are not connected to each other.

#### What is meant by this?

Each row should have the same number of columns to ensure that the content can be assigned to the correct column heading. If the cells in a table are connected to each other, this can lead to confusion and ambiguity, as readers cannot be sure which column heading the content must be assigned to.

#### Why is it important?

If table cells are merged, this can lead to problems as the information can no longer be assigned to the corresponding column headings. Information can be interpreted incorrectly or incompletely and errors or misunderstandings can occur. This can happen in particular when the table is enlarged. Users of screen readers and speech output devices also face challenges in correctly assigning and interpreting the cells when they are linked together. To avoid such problems, tables should be formatted in such a way that each cell can be assigned to a specific column and the information is easy to interpret.

#### How can I implement/check it?

Make sure that each row has the same number of columns so that the content can be assigned to the correct column headings. If it is necessary to include additional information in a cell, new rows or columns can be added for this purpose. If too much information is stored in a table, either the table should be split into several tables or an alternative display format should be selected. In the "Table" menu field, under the "Cell" tab, there is the "Join cells" function. This function should not be used.

### 8.4 Tables have a meaningful title (caption).

#### What is meant by this?

Recipients should be given a quick and concise explanation of what the table is about. The title should therefore describe the content of the table clearly and precisely in order to motivate recipients to focus on the table and better understand the content.

#### Why is it important?

Adding a meaningful title to tables is crucial for accessibility. Recipients with visual impairments who use screen readers benefit from this title as it provides them with the content and context of the table without them being able to see the visual representation. In addition, a clear title promotes semantics and understanding of the table for all recipients, regardless of their individual needs or abilities. This helps to create an inclusive learning environment where all students can access information equally.

#### How can I implement/check it?

Here are the steps to label a table in Moodle:

1. Use the text editor in Moodle to create your table by clicking on "Table" and selecting the number of columns and rows.
2. Once you have created your table, click on the table to select it. Then go to the table properties. Here you will find the option "Insert caption" or "Caption". Click on it.
3. A field with a gray background and the text "Caption" is displayed at the end of the table. Enter a meaningful title for your table that describes the content of the table and explains the purpose of the table.

### 8.5 Complex tables are divided into several simple tables. Only content that actually represents a table is used for a table (not for purely decorative purposes).

#### What is meant by this?

For better orientation, complex tables should be divided into several simple tables. Especially in Moodle, the view of the tables can appear very confusing. In addition, it is generally not easy to find your way around large and complex tables. Long texts are not intended for tables.

#### Why is it important?

A clear division of tables is essential to ensure that they are accessible to all. This is particularly important for recipients with visual impairments who hear the page read aloud.

 By dividing complex tables into simpler tables with clear headings and structures, the readability and comprehensibility of the document can be improved. Recipients with other impairments, such as concentration difficulties or learning difficulties, also benefit from this structure.

An example of this could be a financial report table that shows various key financial figures such as turnover, profit and loss. If this table is very extensive and contains a lot of complex information, it can be difficult to interpret for some recipients. By splitting it into several tables, for example a table for turnover, a table for profit and a table for loss, the information can be presented more clearly and comprehensibly.

#### How can I implement/check it?

To check the complexity of tables, take a close look at the tables. Are there tables that contain several rows and several columns of header cells? Then think about how you can divide the information into several simple tables. If necessary, create manageable tables and proceed as described in chapter 8.1.

## 9. Material (files)

### 9.1 The materials provided in the course are clearly named and the format is indicated (e.g. "PDF").

#### What is meant by this?

All course materials have clear and descriptive names that identify the content and file format.

#### Why is it important?

Naming files correctly is crucial to ensure that students working with speech output or screen readers are given information about the nature of the files and can recognize them efficiently. By using these file naming practices, you can ensure that your Moodle course materials are accessible and easy to understand for all students, including those who rely on assistive technologies.

#### How can I implement/check it?

Here are some best practices for file naming:

1. Use file names that clearly and concisely describe the content or topic of the file. For example: "Accessibility\_in\_Moodle\_Word.docx" or "Accessibility\_in\_Moodle\_PDF.pdf". Avoid generic or meaningless file names such as "Document1.docx" or "Image123.jpg".
2. Add the file format to the file name to indicate what type of file it is. For example: "(PDF)" for PDF documents, "(PPT)" for PowerPoint presentations, "(XLS)" for Excel files, or "(JPG)" for images.
3. Make sure that you do not use any special characters, spaces or umlauts in file names. These can lead to problems with interpretation by screen readers. Instead, use underscores or hyphens to separate words.
4. Keep the file names as short as possible, but at the same time sufficiently descriptive. This improves readability and user-friendliness.
5. If you have several versions of the same document, add a version number or date to the file name to make it easier to distinguish between them. For example: "Accessibility\_in\_Moodle\_v2.docx" or "Accessibility\_in\_Moodle\_2023.pdf".

### 9.2 The materials provided in the course itself are barrier-free.

#### What is meant by this?

Course content should be designed and formatted so that it is easily accessible and understandable for all students, including those with different limitations or challenges. This includes, for example, the consideration of text alternatives for images or the use of clear, easy-to-understand language patterns.

#### Why is it important?

Accessibility of course materials is crucial to ensure that all students can benefit equally from the course content. It supports equality of opportunity and inclusivity by ensuring that students with different needs or impairments can access and use the materials effectively. The implementation of accessible materials thus helps to make educational content accessible to a wide range of learners and improve their learning opportunities.

#### How can I implement/check it?

Here are some best practices and considerations for creating accessible materials in Moodle:

* When creating text documents and PDFs, you should ensure that the text is well structured and that headings, lists and alternative texts are used for images. Avoid using images of text as these are unreadable for screen reader users. Make sure that hyperlinks have meaningful descriptions.
* In PowerPoint presentations, it is important that you enter text in the slides and not just use it as images. Use well-contrasting colors and pay attention to the legibility of texts. Check the slides for a clear structure and use headings for sections.
* Videos should have subtitles or transcripts to make them accessible to students who are dependent on subtitles or have difficulties with auditory perception. Make sure videos have clear sound and good picture quality.
* Use meaningful alternative texts (alt texts) for all images and graphics so that they can be recognized and described by screen readers.
* As mentioned above, tables should be properly structured and labeled to facilitate navigation and interpretation for screen reader users.
* Check your materials for accessibility by using the accessibility checklists and tools available in Moodle. These allow you to check the accessibility of your materials and make any necessary adjustments.

You can also find detailed implementation aids and checklists for different types of material in the OpenMoodle course "Accessible teaching materials package".