

# THE TOOLBOX



DLO

for increasing the **NEURO-INCLUSIVITY** of  
the **DIGITAL WORK AND LEARNING  
ENVIRONMENT** and **EDUCATION**

# THE TOOLBOX

This toolbox is based on the outcomes of research into digital inclusion in digital environments in higher education. Based on guiding principles derived from this research, this toolbox includes a collection of tips, advice and reflective tools as well as a source of inspiration for increasing neuro-inclusivity in:

## 1 The digital work- and learning environment

Including all systems, applications, software and apps used for facilitating education. Examples of these within the Utrecht University of Applied Sciences are; Osiris, Canvas, GradeWork, TestVision, Microsoft Teams and Teacher Toolbox.

## 2 Education

Focussing on the context and the way in which students and employees use digital systems and environments. Examples of this include student/employee behavior, attitudes, skills and awareness as well as the design of digital and physical environments and systems themselves.

### For whom?

This toolbox has been developed with three groups in mind within higher education: students, teachers and educational developers.

# THE CREATORS



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Visit the project page of  
DLO Digital Inclusion

# MAIN MENU

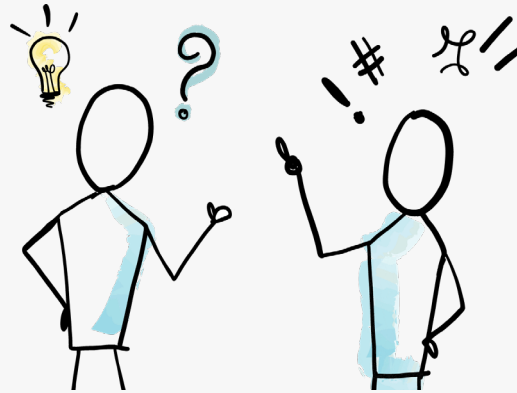


## THE PRINCIPLES

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## TIPS AND ADVICE

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## DO IT YOURSELF

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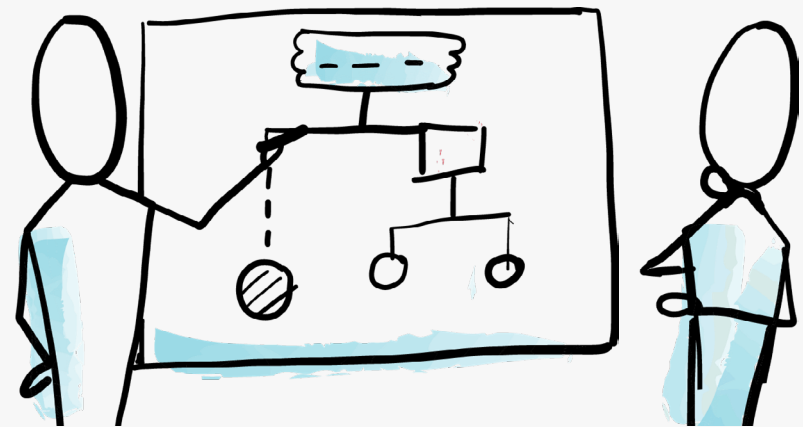
# DESIGN PRINCIPLES

## for a neuro-inclusive digital work and learning environment

These three design principles form the baseline for increasing inclusivity in the digital work and learning environment. They serve as support during the design process, resulting in a functional and user-friendly environment for users with various needs.

### **i** The digital work and learning environment

This refers to all systems, applications and software used for facilitating education. A few examples of these which are in use at the Utrecht University of Applied Sciences are Osiris, Canvas, GradeWork, TestVision, Microsoft Teams, and Teacher Toolbox.





# 1

## AN OVERVIEW OF DESIGN PRINCIPLE 1

### Consistent and accessible structure

Ensure there is uniformity in systems and design for navigation and channels of communication so users can find what they need straightforwardly. Test adjustments in these systems against set design principles.

### WHY THIS IS IMPORTANT

- ✓ As a user, you'll immediately know where to find information and assistance without first having to find out yourself
- ✓ It prevents users from disengaging
- ✓ You create clear expectations for users because the system is explicit, predictable, and recognizable
- ✓ The system remains sustainable and transferable over longer periods of time

#### **i** 10 Usability Heuristics for User Interface Design

These heuristics, developed by Jakob Nielsen, offer examples and guidelines for designing consistent user-friendly digital environments.

# 2

## AN OVERVIEW OF DESIGN PRINCIPLE 2

### User-friendly and intuitive systems

Design systems based on the needs of users and accessibility guidelines. Make use of the support that superusers and exemplary systems can offer.

### WHY THIS IS IMPORTANT

- ✓ Adding and retrieving information becomes easier for yourself as well as others
- ✓ It takes less time and significantly reduces the burden for both yourself and other users
- ✓ It positively impacts processes and use of systems due to streamlining
- ✓ Additional support is provided, without increasing the required effort



#### Web Content Accessibility Guidelines (WCAG)

The WCA Guidelines are used by developers and organisations to increase accessibility of digital products for broad audiences. They provide counsel concerning legibility, navigability and use of technology.

# 3

## AN OVERVIEW OF DESIGN PRINCIPLE 3

### Clear information provision and task interaction

Ensure there are clear directives on the form and place of information and make sure that interactions with the systems in which the information resides are simple and accessible based on the task at hand.

### WHY THIS IS IMPORTANT

- ✓ It saves you and other users a lot of time
- ✓ It helps you and others get into and maintain a comfortable routine
- ✓ It allows for clear mutual expectations and dependable collaboration
- ✓ It provides you and others with the space to set boundaries and express needs



#### **Gebruiker Centraal (User Needs First) - Optimaal Digitaal** (Dutch only)

Optimaal Digitaal (Optimal Digital) offers practical advice on clear provision of information and task-centered interactions for improving digital services to better enable users to achieve their goals in an efficient and simple manner.

# GUIDING PRINCIPLES

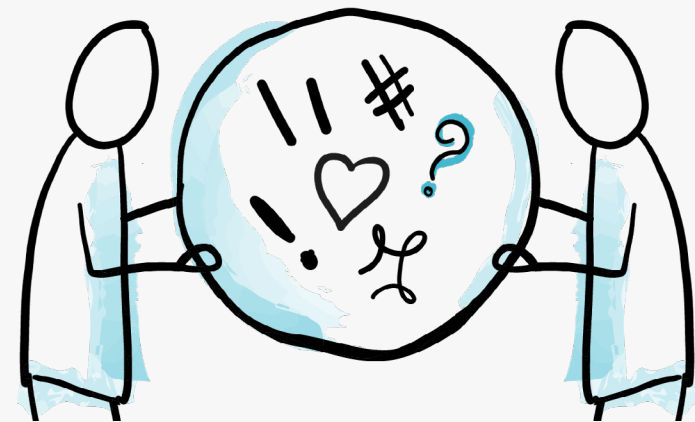
## for neuro-inclusive education

These three guiding principles are fundamental norms and values that facilitate more neuro-inclusive attitudes and behaviors. They serve as general directions when determining approach in decision-making, strategizing and shaping cooperation between people with varying needs.



### Education

This refers to the context and the way in which people engage with the digital work and learning environment. Examples of this include: the physical environment, as well as behaviors, attitudes, skills, convictions and awareness of the people engaging with the systems in said environment.



# 1

## AN OVERVIEW OF GUIDING PRINCIPLE 1

### Ownership in communication

Encourage your (fellow) students, teachers and other employees to strike agreements on communication, taking various needs into account.

### WHY THIS IS IMPORTANT

- ✓ Cooperation with neurodivergent and neurotypical others becomes easier
- ✓ You save time, which results in providing yourself and others with space to work on important tasks
- ✓ Mutually clear expectations are in place, so you don't have to "bother" each other as much
- ✓ You get to know the other person better, allowing you to strengthen each other

#### **Onderwijscommunity (Education Community)** (Dutch only)

Onderwijscommunity hosts a digital environment in which you can find everything you need to share knowledge and experiences, learn, and grow as a professional in education.

# 2

## AN OVERVIEW OF GUIDING PRINCIPLE 2

### Individual autonomy within structured frameworks

Facilitate self-direction, autonomy and intrinsic motivation by providing flexibility within structured (educational) frameworks.

### WHY THIS IS IMPORTANT

- ✓ You give yourself and others the freedom to do things in their own way, while the goal and focus remain clear
- ✓ Learning and development are given space, stimulating the eagerness to learn
- ✓ It provides quality assurance: results remain clear and measurable, preventing the learning process from becoming chaotic and ensuring the quality of education is maintained

#### **i** De Ontwikkeling van de Stuurkracht van Studenten (The Development of Student's Self-Direction) (Dutch only)

This HAN report offers insight into ways to create a learning environment in which students are stimulated to guide their own learning process within the framework of the curriculum.

# 3

## AN OVERVIEW OF GUIDING PRINCIPLE 3

### Inclusive cooperation

Stimulate a workplace culture in which diversity is recognized and in which neurodivergent as well as neurotypical participants can actively contribute to inclusivity and cooperative learning.

### WHY THIS IS IMPORTANT

- ✓ You create a safe space for growth, stimulating skills such as asking for help and expressing needs.
- ✓ You avoid stereotyping, prejudice en (conscious) ignorance in yourself and others
- ✓ By being honest and transparent, others can trust you and rely on you
- ✓ It cultivates awareness that persists in your behavior and in the actions of those around you

#### **i** Zicht op Studieontwikkeling (Insight Into Educational Development) (Dutch only)

This report offers insights and recommendations for teachers and educational developers to create an inclusive learning environment in which all students, regardless of their neurological background, can contribute and thrive.

## SHORT COMICS

### Design principle 1: An example of...

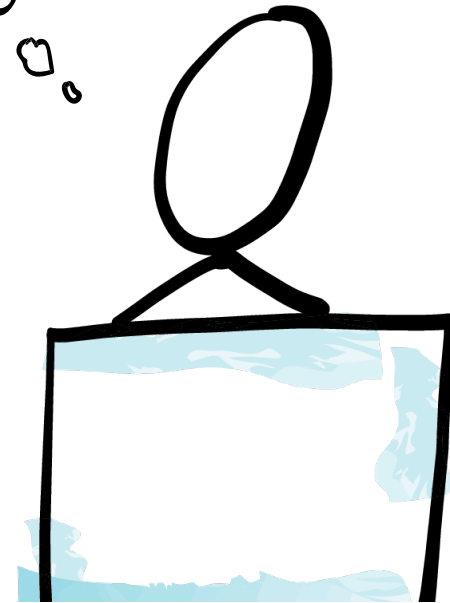
This is our file structure in which you can find all shared files and upload them. I've sent you an email with the explanation.

Great! Though I prefer learning visually, can you walk me through it?



...ensuring uniformity in systems and design for navigation and channels of communication, and...

Before I use this channel differently, I'll consult the needs diagram. That way I can take other users into account.



...testing adjustments in these systems against set design principles.



## SHORT COMICS

### Design principle 2: An example of...

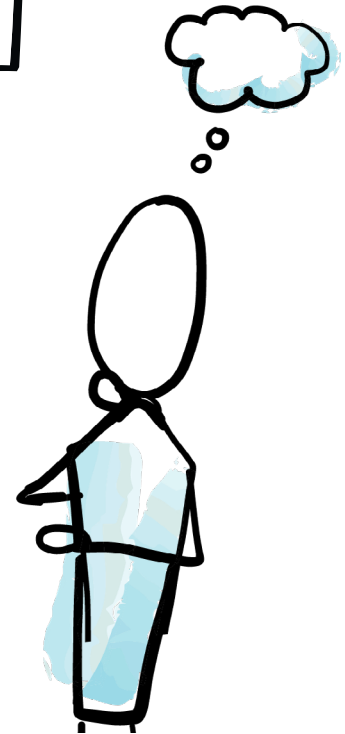
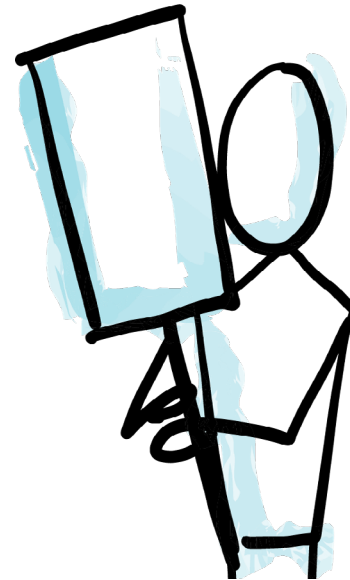
Before we send this document out, we need to check it for usability.

Let's use the Web Content Accessibility Guidelines for this!



...designing systems based on user needs and accessibility guidelines, and...

Can you check my presentation for comprehensability? I want the information to be clear and well understood.



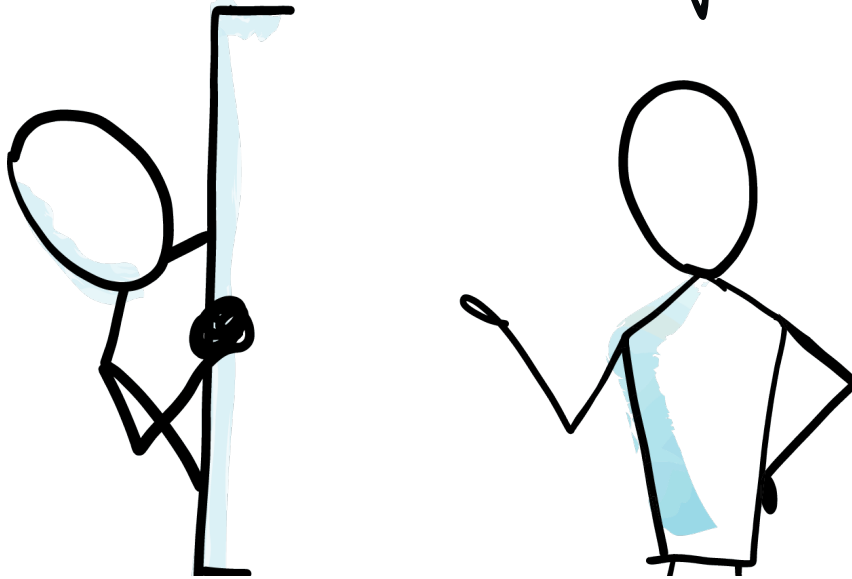
...using the support that superusers and exemplary systems can offer.

## SHORT COMICS

### Design principle 3: An example of...

Could you upload the report on SharePoint? That way I can provide my feedback in the comments.

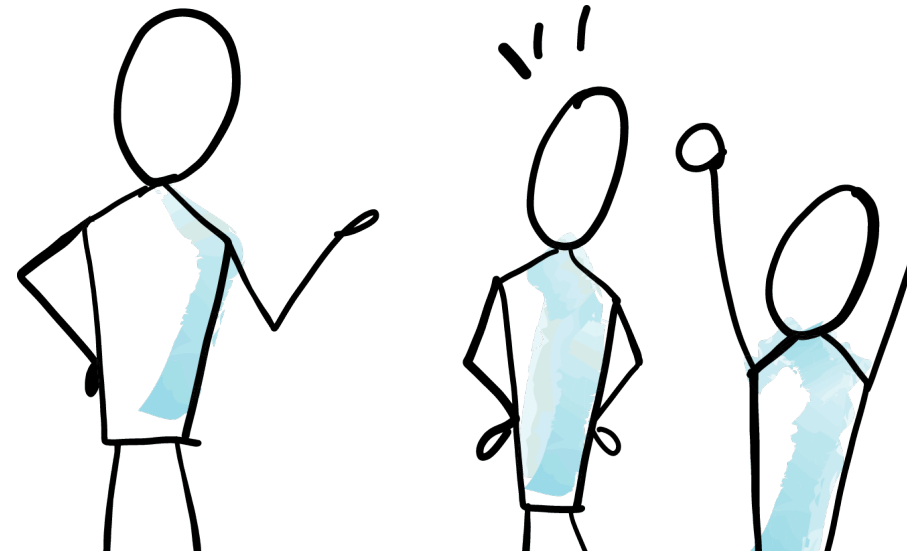
Sure! I mainly need feedback on the structure of the report. When that is up to standard, I can continue with the content.



...setting up clear directives on where and how to find information, and...

I've shared my digital calendar with you. That way you can see exactly when I'm available.

Great idea! That way we won't have to send as many e-mails to set up an appointment.

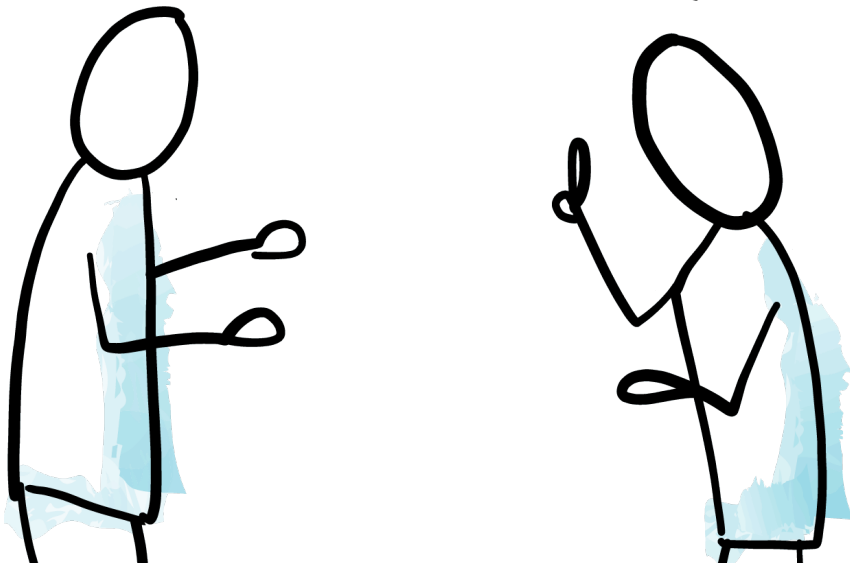


...making interactions simple and accessible based on the task at hand.

## SHORT COMICS

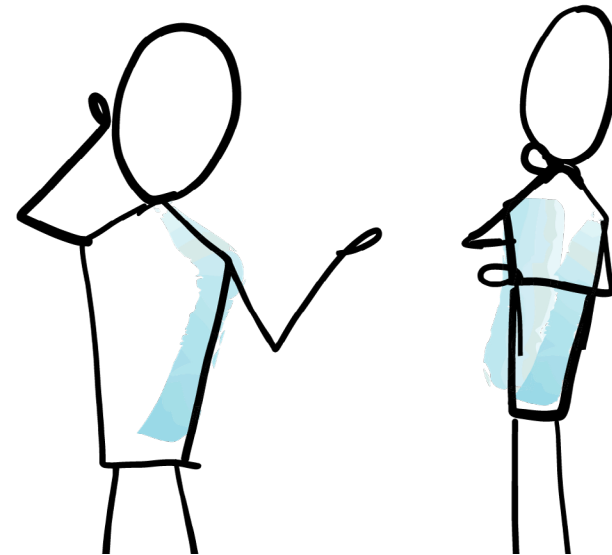
### Guiding principle 1: An example of...

Would you coordinate with me on which channels we will use for communication in the coming period? That will give me clarity and an overview.



...encouraging your (fellow) students, teachers and other personnel to strike agreements on communication,...

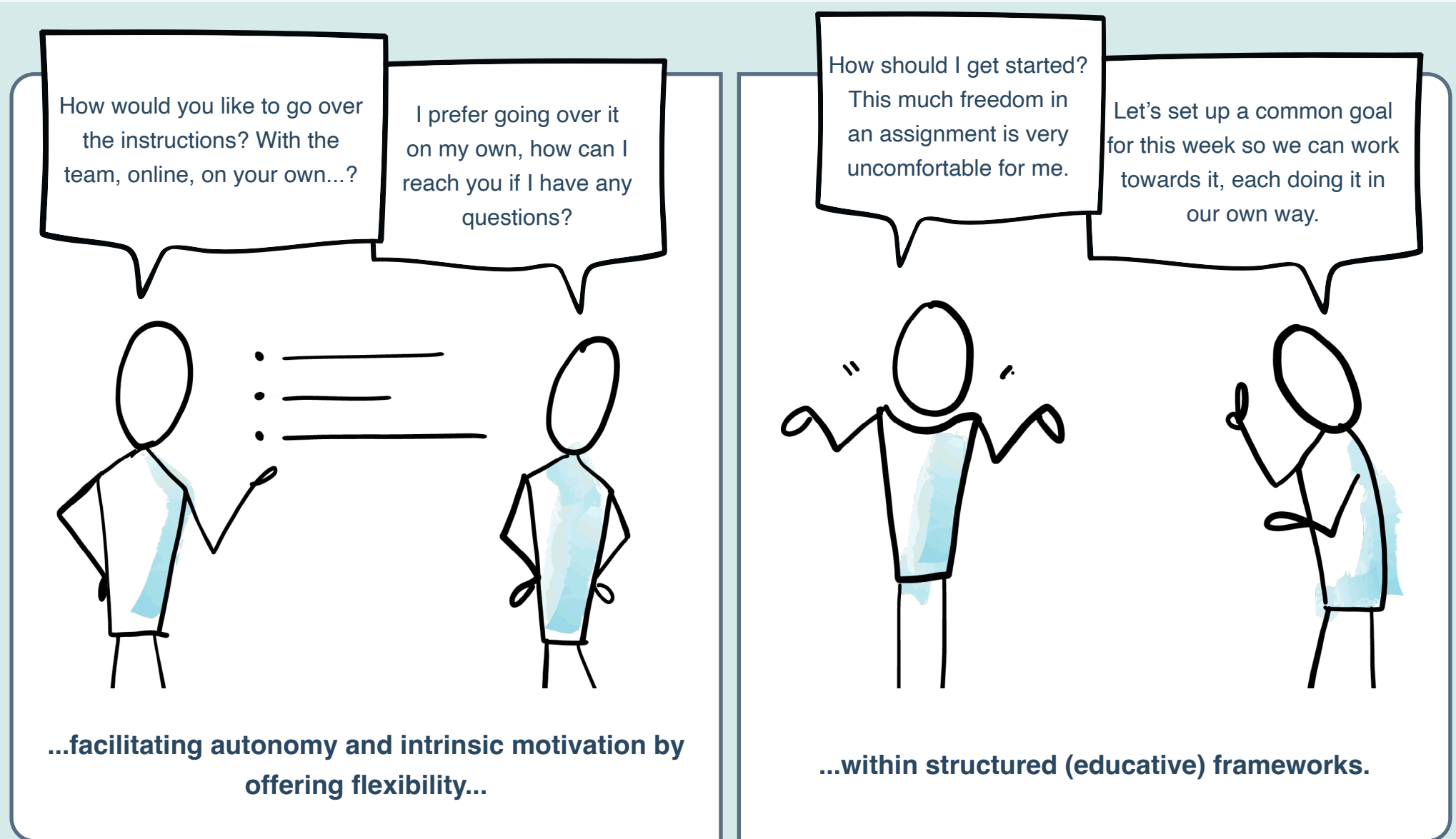
I've noticed you try to clarify yourself a lot, can you tell me what I can do to let you know you're understood?



...taking various needs into account.

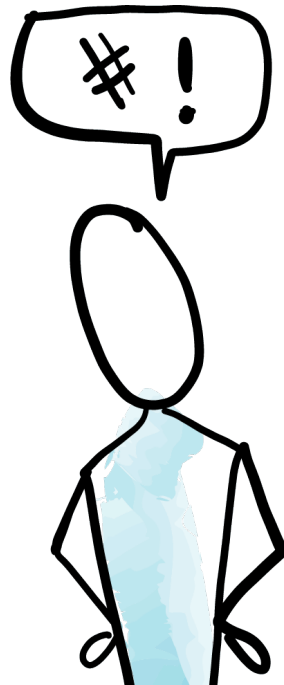
## SHORT COMICS

### Guiding principle 2: An example of...



## SHORT COMICS

### Guiding principle 3: An example of...

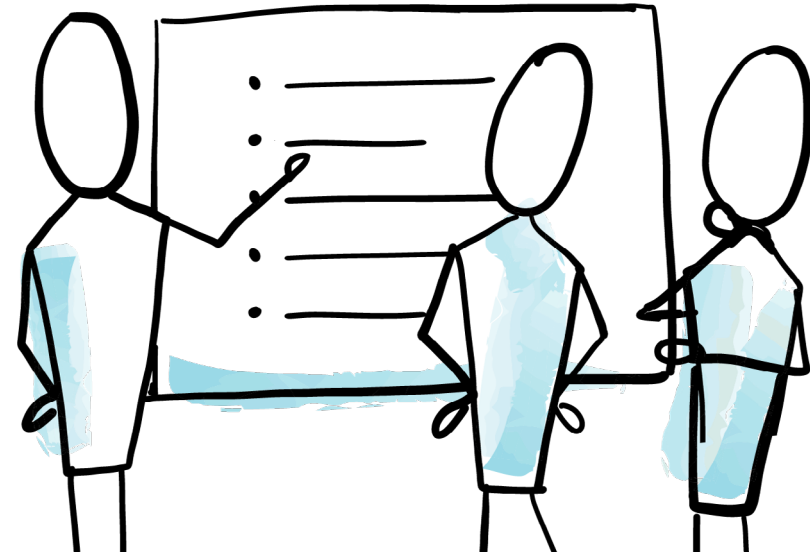


Alright, I hear what you're saying, but I don't understand what you mean. Your opinion differs from mine. Can you tell me more about your experience with this?



...fostering a workplace culture in which diversity is recognised and...

I've made a form in which you can provide feedback anonymously. Let's look at it together next week.



...in which both neurodivergent and neurotypical users can contribute to inclusion and cooperative learning.

## TIPS FOR STUDENTS

### Design principles for a neuro-inclusive digital learning environment

#### Consistent and accessible structure

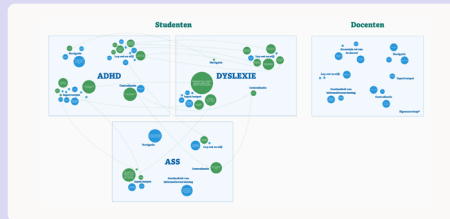
Use the same structure when asking for information every time, like always making a list of the specific aspects on which you want feedback from your teachers or fellow students.

State clearly that you don't want to receive homework through emails anymore. Support your choice by providing insight into what holds you back and share what would work for you.

Information about studying with needs for additional support:

#### User-friendly and intuitive systems

Use the needs diagram for support when you're creating a (digital) prototype or product. (The MURAL is in Dutch only)



Ask your peers to provide you with examples of digital tools that work for them and why they work for them.

#### Clear information provision and task interaction

Present to your peers or teachers which digital tools you prefer using. Explain for what purpose you want to use them and ask for feedback on your choices.

First, check for yourself whether the digital files you create, share online, or submit can be opened and used across different programs and browsers. Also, verify their accessibility using the Web Content Accessibility Guidelines (WCAG) if you haven't already.

## TIPS FOR STUDENTS

### Guiding principles for neuro-inclusive education

#### Ownership in communication

Set up a shared file in which you document what has been discussed with your fellow students or teachers. Ask them to maintain and keep up to date with this file.

You could use the needs diagram as a checklist before communicating with your peers and/or teachers to ensure that the correct information reaches them the right way.  
(The MURAL is in Dutch only)

#### Individual autonomy within frameworks

Set up a personal planning with your fellow students and/or teachers, so you can take others' pace and circumstances into account.

At the start of an assignment or lesson, ask what the (learning) objectives are, and indicate how you can best work toward them in your own way. Coordinate this with your fellow students and/or teachers.

Information about studying with needs for additional support:

#### Inclusive cooperation

Talk about your needs and/or experiences with neurodiversity with your fellow students or teachers. Show interest and ask them about their needs and experiences with the matter.

The Diversity & Inclusion Network of Utrecht University of Applied Sciences:

Ask your fellow students about their strengths and share your own at the start of a project. Take the time to think about how you can use these optimally for your cooperation as a group.

## TIPS FOR TEACHERS

### Design principles for a neuro-inclusive digital learning environment

#### Consistent and accessible structure

Always use the same channel for the same type of information: For example, always use Canvas to assign homework, or always use Teams to get in touch with your students.

Use set templates provided by the organisation when communicating through or providing input for digital environments. Ask feedback from your students about your input.

Digital Accessibility for teachers and developers (Dutch only):

#### User-friendly and intuitive systems

Exchange individual needs about hybrid meetings, lectures or other moments of contact with colleagues and/or students. You can also use the needs diagram as an example. (The MURAL is in Dutch only)

Confer with colleagues about student complaints regarding the digital learning environment. Report these to the relevant parties such as educational and/or software developers.

#### Clear information provision and task interaction

Collectively create a structure in shared files with your colleagues and/or students. Set up indexations, categories and/or file formats that make sense for the whole group.

Tips for accessible content on the SDGs at Open-ICT (Dutch only):

Create a single general folder in which you and your students can upload homework or assignments throughout the semester, so everyone knows where to find everything.



## TIPS VOOR DOCENTEN

### Guiding principles for neuro-inclusive education

#### Ownership in communication

At the end of each semester, reflect on how you and your students and/or colleagues experienced your verbal as well as your digital communication recently.

At the start of each academic year or semester, ask your students which (digital) methods of communication work best for them and why. Discuss how you'll approach this together.

Videos in which neurodiverse students share their needs:

#### Individual autonomy within frameworks

Let students choose between various assignments and methods that suit their interests, questions or current themes.

Present the (learning) goals at the beginning of each semester or lesson. Explain how these align with the broader curriculum or program. You can also refer to the report from the 'Insight into Educational Development' project, which provides practical guidance for shaping learning goals, paths, and formative assessments.  
(Available in Dutch only)

#### Inclusive cooperation

Evaluate your attitude and word choice with your students and/or colleagues. Ask them whether they have understood you and whether they are curious about your perspective.

The infosheet from the Dutch Centre of Expertise for Inclusive Education, featuring practical tips from neurodiverse students themselves about education:

At the start of every group assignment, have each student choose a role that aligns with their strengths, preferences, and/or personal learning goals.

## TIPS FOR EDUCATIONAL DEVELOPERS

### Design principles for a neuro-inclusive digital learning environment

#### **Consistent and accessible structure**

Restrict editing rights for non-developers in the digital work and learning environments when it comes to lay-out and other functionalities. Create templates and/or protocols for teachers and other users.

Implement changes to digital systems, functionalities, and/or (course) modules only once they meet the requirements of your organization, or make sure that they comply with the Web Content Accessibility Guidelines (WCAG).

#### **User-friendly and intuitive systems**

Develop and design (new) systems and functionalities together with the people who will ultimately use them or work with them. Let users participate in the process from the very start of the project.

Tips for dealing with participants  
(Dutch only):

Schedule consistent moments to gather feedback from (neurodiverse) users and evaluate whether you have effectively incorporated it.

#### **Clear information provision and task interaction**

Collectively set up a protocol for the use of specific systems, channels and functionalities and document the conditions and potential consequences of their use.

Take inventory of which tasks or goals the users utilize the digital work and learning environment for, and remove functionalities that do not contribute to these.

Also take a look at these tip cards with practical advice from Optimaal Digitaal (Dutch only):

## TIPS FOR EDUCATIONAL DEVELOPERS

### Guiding principles for neuro-inclusive education

#### Ownership in communication

Integrate explicit moments or options for establishing and documenting communication agreements into the curriculum and/or the digital work and learning environment.

Ensure the needs and agreements made concerning communication can be registered and edited, so they become and remain visible for both students and teachers.

The stories of neurodivergent students and teachers:

#### Individual autonomy within frameworks

Develop (course) modules in which students learn core principles that can be applied to their own projects or challenges.

This HAN report provides insight into creating a learning environment where students are encouraged to direct their own learning process within the framework of the curriculum (Dutch only):

Have students and teachers think along with you about how the general guidelines could be applied to their own (digital) work and learning environment.

#### Inclusive cooperation

Integrate examples, case studies or stories into the (digital) modules that reflect a diversity of perspectives and needs.

Use the needs diagram to learn more about the varying needs of different neurodivergent users. (The MURAL is in Dutch only)

Have experts on the subject of neurodiversity give a guest lecture or workshop to your team, teachers, or students.

## TOOL: REFLECTION EXERCISES

# Design principles for a neuro-inclusive digital learning environment

### 1 Consistent and accessible structure

Think back to a situation in which you used a straightforward and accessible digital environment.

- What was the situation?
- Which elements or functionalities made it straightforward and accessible?
- How did this affect your motivation and/or productivity?

Now think back to a moment in which you had to deal with a chaotic digital environment in which, for example, information was hard to find.

- What was the situation here?
- Which elements or functions were not working properly here? What made it chaotic?
- How did this affect your motivation and/or productivity?

Think back to a moment in which something changed (within) your digital work and/or learning environment.

- How was the change implemented and communicated?
- How predictable and consistent did it remain for you after the change?
- How did this affect you?
- How would you have preferred these changes or adjustments to have been carried out?

## TOOL: REFLECTION EXERCISES

# Design principles for a neuro-inclusive digital learning environment

## 2 User-friendly and intuitive systems

Pick a digital environment you use daily for work or studying.

- Is this environment easy for you to use?
- What makes it easy or difficult?
- Which tools or workarounds do you use to make it easier to use for yourself and/or others?
- Is this the best way? Why?

Pick a digital environment you use daily in your free time or one you don't necessarily have to use.

- Which elements can you take as an example when designing and/or using your own digital work or learning environment?
- (How) would you like to communicate or apply this in order to bring about real change?

## TOOL: REFLECTION EXERCISES

# Design principles for a neuro-inclusive digital learning environment

### 3 Clear information provision and task interaction

Make a list of your needs, preferences, and/or requirements for digitally searching and finding information. These questions can help you create the list:

- When is it clear enough for you where and how to find information?
- What do you need in order to remember the methods, guidelines, and/or agreements?
- What is important to you regarding this?
- How would you like others to share their needs in this process?

Make a list of tasks that you often perform in your digital work or learning environment. For each task, think about:

- Which interactions make it easier for you to carry out this task?
- Which (inter)actions take up a unnecessary amount time?
- What could you improve or would you like to improve to make performing this task easier?
- (How) would you like to communicate or apply this?

## TOOL: REFLECTION EXERCISES

### Guiding principles for neuro-inclusive education

#### **1** Ownership in communication

Think of a situation in which you took the lead in setting up agreements about communicating.

- How did you take responsibility?
- How did the other(s) respond to you taking the lead?
- What happened after that?

This can also be done in pairs or in a group. Take a situation in which you would have liked to express your needs in communication, but didn't.

- What would you have needed to communicate your needs?
- How can you (as a group) deal with this in the future?

## TOOL: REFLECTION EXERCISES

### Guiding principles for neuro-inclusive education

#### 2 Individual autonomy within structured frameworks

Think back to a situation in which you were given the freedom to approach a task, project or assignment in your own way.

- What was the situation?
- Which choices were you able to make yourself?
- What was it like to have this autonomy? How did it feel?
- How did this affect your motivation and/or productivity?
- How did you communicate your wishes, needs or approach to others?

Think about how the structure, guidelines, or conditions in this situation affected or influenced your process and direction.

- Which frameworks or guidelines were provided?
- Were the frameworks or guidelines sufficiently clear or helpful to you?
- (How) would you like to make your needs known in such a situation?



## TOOL: REFLECTION EXERCISES

### Guiding principles for neuro-inclusive education

#### 3 Inclusive cooperation

Think back on a moment when you felt excluded in your work or learning environment. It can be a small or large incident—anything is fine.

- What was the situation?
- Who were involved?
- How did it make you feel? How did you feel before it happened?
- What was your need in this situation?
- How did you respond or react?
- How would you like to have responded or reacted?

Think about how you dealt with this situation towards others.

- Did you share it with others?
- Why did or didn't you?
- (How) did the other person respond?
- How did this (non-)response make you feel?
- What did you take away from this?
- How would you like to do this (differently) in the future?

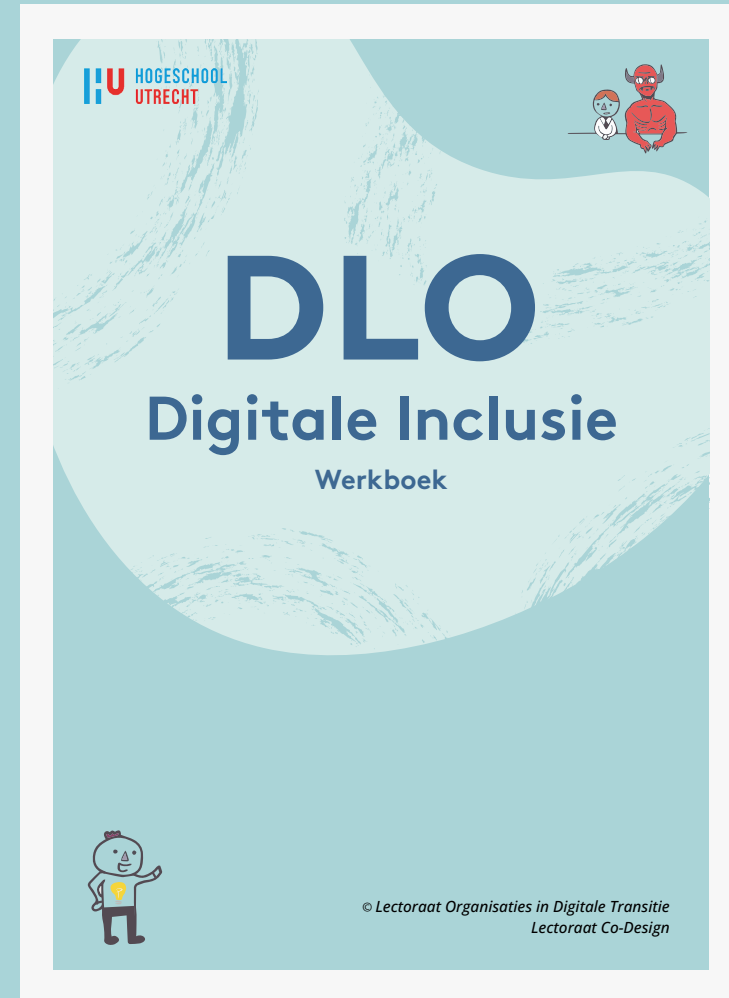
## **TOOL: WORKBOOK**

### **For self-evaluation in education**

**During phase 2 of the research process, a workbook was created with which students, teachers and educational developers could evaluate their behavior, attitude and awareness concerning neuro-inclusivity within their own pers context.**

Based on the guiding principles, you can reflect on your personal experience with each principle; document how you will apply this in your own practice regarding neurodiversity; consider what you need for yourself and from others; and record the connections you make with others. On the following pages, you will find the workbook.

Below is the separate PDF-file of the workbook  
(Available in Dutch only):



## TOOL: WORKBOOK

### For self-evaluation in education

#### Assignment 1.1

**Guiding principle 1: Ownership in communication**

*Encourage (fellow) students, teachers and other employees to strike agreements on communication, taking various needs into account.*

My personal experience with this principle is:

#### Assignment 1.2

**Guiding principle 2: Individual autonomy within structured frameworks**

*Facilitate self-direction, autonomy and intrinsic motivation by providing flexibility within structured (educational) frameworks.*

My personal experience with this principle is:

#### Assignment 1.3

**Guiding principle 3: Inclusive cooperation**

*Stimulate a workplace culture in which diversity is recognized and in which neurodivergent as well as neurotypical participants can actively contribute to inclusivity and cooperative learning.*

My personal experience with this principle is:

## TOOL: WERKBOEKJE

### For self-evaluation in education

#### Assignment 2.1

##### **Guiding principle 1: Ownership in communication**

*Encourage (fellow) students, teachers and other employees to strike agreements on communication, taking various needs into account.*

Thinking about my personal experience with this principle, as a \_\_\_\_\_, I'm going to change (something in) my behaviour/ attitude / awareness towards \_\_\_\_\_ regarding neuro-inclusivity.

I'm going to implement this in my own practice by making an effort to...

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

In order to accomplish this, I need

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

In my own practice, it could look like this:

**Connections:**

## TOOL: WERKBOEKJE

### For self-evaluation in education

#### Assignment 2.2

**Guiding principle 2: Individual autonomy within structured frameworks**  
*Facilitate self-direction, autonomy and intrinsic motivation by providing flexibility within structured (educational) frameworks.*

Thinking about my personal experience with this principle, as a \_\_\_\_\_, I'm going to change (something in) my behaviour/ attitude / awareness towards \_\_\_\_\_ regarding neuro-inclusivity.

I'm going to implement this in my own practice by making an effort to...

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In order to accomplish this, I need

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In my own practice, it could look like this:

**Connections:**

## TOOL: WERKBOEKJE

### For self-evaluation in education

#### Assignment 2.3

##### *Guiding principle 3: inclusive cooperation*

*Stimulate a workplace culture in which diversity is recognized and in which neurodivergent as well as neurotypical participants can actively contribute to inclusivity and cooperative learning.*

Thinking about my personal experience with this principle, as a \_\_\_\_\_, I'm going to change (something in) my behaviour/ attitude / awareness towards \_\_\_\_\_ regarding neuro-inclusivity.

I'm going to implement this in my own practice by making an effort to...

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In order to accomplish this, I need

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In my own practice, it could look like this:

Connections:

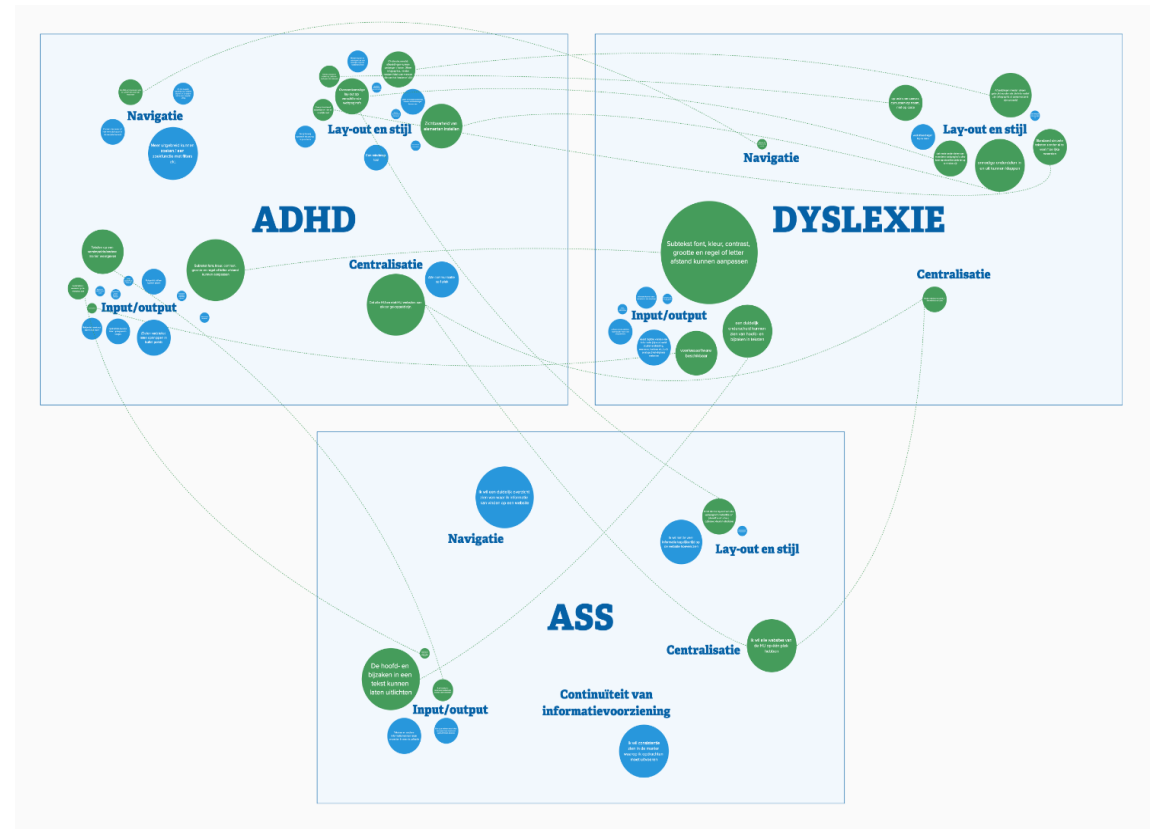
## **i** INFO: NEEDS DIAGRAM OF NEURODIVERGENT STUDENTS

### Needs within the digital work and learning environment

As a result of phase 1 of the research process, a needs diagram has been developed regarding neurodivergent students who use the digital learning environment of the Utrecht University of Applied Sciences.

For each neurotype; Attention Deficit Hyperactivity Disorder (ADHD), Autism Spectrum Disorder (ASD) and Dyslexia (DYSL), this diagram show which needs have been mentioned by each respective target group. The color indicates the frequency with which the need was mentioned. The needs have been categorized into themes; the following pages show the needs diagram.

The needs diagram can also be viewed in MURAL  
(Available in Dutch only)



## **i** INFO: NEEDS DIAGRAM OF NEURODIVERGENT STUDENTS

### Needs within the digital work and learning environment

#### Theme: lay-out and style

	AD(H)D	ASS	DYSL
Reduce the number of folders and subfolders, using clear and logical file names	2		
Ability to hide or show supporting images; prefer more infographics and fewer photos	4		
Organize Canvas courses by study year rather than by course name	2		4
Maintain a consistent layout across all web pages	4	4	4
Display a new assignment as a pop-up on the screen	2		
Provide a dynamic overview of all courses required for the program	1		
Show only necessary assignments, exams, and retakes	3		
Allow users to experiment with the layout	1		
Enable setting the visibility of elements	5		6
Automatically place high-priority items at the top (with filters?)	1		
Include a mind-mapping tool	3		
Use clear, standard, and simple language throughout	2		4
Prefer shorter texts (short sentences, short lines, etc.)	1		1
Include many images alongside text			3
Avoid showing too much information on the website at once		5	
Ensure visual updates are optional and allow users to retain the previous layout if desired		1	



## **i** INFO: NEEDS DIAGRAM OF NEURODIVERGENT STUDENTS

### Needs within the digital work and learning environment

#### Theme: input/output

	AD(H)D	ASS	DYSL
Display texts in a simplified or alternative format	5	2	
Reminders/alarms directly on the websites	2	1	
Personal private notice board on the page	1		
Ability to check off or mark assignments as completed	1		
View textual descriptions of images and videos	1		
Ability to toggle background noise on/off	3		
Adjust font, color, contrast, size, line spacing, or letter spacing for subtitles	7		9
Regularly update outdated information	1		
Ability to edit text	1		
Break (parts of) text into bullet points	4		
Split assignments into smaller chunks	3		
Reading progress bar that moves along while reading	2		
Text-to-speech software	1		5
Highlight main points and supporting details in a text		7	6
Convert texts and other information into visualizations		4	
Option to see why and how to complete an assignment		3	
Emphasize or highlight keywords in a text			1
Automatic digital spell-check			1
Convert information into a mindmap			2
Website software that converts audio into text			3
Provide analogue versions alongside digital versions of information			4

## **i** INFO: NEEDS DIAGRAM OF NEURODIVERGENT STUDENTS

### Needs within the digital work and learning environment

#### Theme: navigation

	AD(H)D	ASS	DYSL
An FAQ for students showing where things should be located	3		1
As few hyperlinks to external pages as possible; provide explanations directly on the page	2	1	
Ability to see where or how you are positioned within the website	2		
More advanced search options / a search function with filters, etc.	6		
A clear overview of where information can be found on a website	7		

#### Theme: centralization

	AD(H)D	ASS	DYSL
That all HU and non-HU websites are interconnected	7	6	3
To have one central point for all communication	4		

#### Theme: continuity of information provision

	AD(H)D	ASS	DYSL
I want to see consistency in the way I have to complete assignments		6	

## **INFO: NEURO-INCLUSIVITY**

### **In (digital) education**

#### **About the research project**

##### **DLO Digital Inclusion**

**The project page**, which contains all information concerning the execution and results of the research project itself.

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**Videos from research phase 1** about the needs of neurodiverse students of the Utrecht University of Applied Sciences.

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**Report on research phase 1** about the research activities, conclusions, results and recommendations concerning neuro-inclusivity in students' digital learning environments (Dutch only).

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**Video from research phase 2** about the needs of (neurodiverse) students, teachers and developers of the digital work and learning environment and curricula.

#### **Other resources within the**

##### **Utrecht University of Applied Sciences**

##### **Diversity & Inclusion Network**

info.di@hu.nl

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**Project Digital Accessibility** (Dutch only)

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**Project Insight into Educational Development** (Dutch only)

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##### **Studying with additional support needs**

stip@hu.nl | hugemeenschap@hu.nl

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**Accessible Content at Open-ICT** (Dutch only)

## **INFO: NEURO-INCLUSIVITY**

### **In (digital) education**

#### **Other resources outside of the Utrecht University of Applied Sciences**

**Nielsen Norman Group - 10 Usability Heuristics for UI Design**

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**Dutch Centre of Expertise for Inclusive Education - Infosheet**

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**HAN: The Development of Student's Self-Direction) (Dutch only)**

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**Gebruiker Centraal - Dealing with participants (Dutch only)**

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**Gebruiker Centraal - Optimal Digital (Dutch only)**

**Network Utrecht Science Park Inclusive**

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**Education Community (Dutch only)**

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**Web Content Accessibility Guidelines (WCAG)**