



## An introduction to e-Inclusion

### Building Capacity for Inclusive Education in Digital Environments

*\* This document is work in progress \**



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# Management Summary

In this e-inclusion project, we develop knowledge and guidelines for teachers about how they can create inclusive digital education in their courses, how they can practice e-Inclusion. Inclusive, or equitable, education is education that is accessible, engaging and enriching for everybody, regardless of one's identity, background or body. Building inclusive digital learning environments requires taking an affirmative stance, where teachers should carefully reconsider what 'good' education means in this relatively new context.

Developing good and inclusive digital education has become very urgent, now that the embrace of online education has been accelerated by COVID, and that online education – often in a combination with physical, offline education in blended or hybrid education forms – has become part of everyday reality in many countries. Like in physical classrooms, the question of how to make education more inclusive in online settings is pressing. Digital learning environments bring with them their own unique set of demands, challenges and opportunities in relation to diversity and inclusion. This handbook describes these specific challenges and opportunities, and offers concrete tools on how to facilitate inclusive digital learning environments. The specificities of offline and online learning call for course designs that employ offline and/or online learning methods in deliberate ways.

In this handbook, we develop a pedagogy for inclusive digital education, by dealing with three questions that appeal to the three competence levels of value/attitude, knowledge and skills.

- **Why inclusive online education?** We describe the need for developing inclusive (online) education (Chapter 1)
- **How to practice inclusive online education?** We unpack the various aspects of inclusive online education, based on the 'pedagogical triangle' and the 'TPACK model', which we expanded into the I-TPACK model (Inclusion-TPACK).
- **What to do? Five guidelines for inclusive online education**
  - ❖ Guideline 1. Awareness and continuous self-reflection
  - ❖ Guideline 2. Know and adapt to the needs of students
  - ❖ Guideline 3. Diversify pedagogical practices and ensure accessibility of the course (learning goals, feedback and assessment, delivery methods, course organisation)
  - ❖ Guideline 4. Diversify content
  - ❖ Guideline 5. Create an inclusive learning climate (belonging and agency)

Apart from this handbook, we will offer a course in Autumn 2022 and launch micro-modules that teachers can use to make their online, blended and hybrid education more inclusive. You can find more information on our project website: <https://einclusion.net>.

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# Glossary

**e-inclusion:** The practice of e-inclusion refers to the continuous process of making digital education (education that is supported by digital tools) inclusive.

## Concepts relating to inclusive education

**Inclusive education:** Education that is accessible and engaging for every student, regardless of their social background, identities and/or disabilities. This means that every student is engaged in a cognitive, behavioural, and emotional way without any barriers for access or engagement, and that every student is acknowledged, stimulated and supported in their talents and needs. Inclusive education is always work-in-progress and gets shape in the setting of a particular moment and should thus be seen as an ongoing process. As it is influenced by the physical, digital, cultural and social context, including all its participants, no checklists can be offered, only guidelines and ideas for inspiration.

**Inclusion:** The state in which all individuals, regardless of their identity, background or need, can actively participate and belong in a setting. Rather than integrating individuals into the existing system, working towards inclusion requires systematic change that adapts the mechanisms that (re)produce inequalities. It is important to note that inclusion gets shape through systems and actions in everyday settings. Achieving inclusion is always work-in-progress.

**Equity:** The situation in which all individuals have access to the resources they need to achieve similar outcomes regardless of their identity or background. Equity refers to a deliberate approach, which is sensitive to societal mechanisms of exclusion and where support is adapted to the context of individuals. In contrast with the term equality, equity is not based on offering similar treatments, but on equality in achieved outcomes.

**Belonging:** A sense of belonging refers to the experience when individuals feel that they are acknowledged as full-fledged members of a community. In education, this is related to having good and constructive relationships with teachers and other students, to feeling valued and acknowledged as a person and to feel connected to the course content.

**Social presence:** Social presence is the ability to establish social and emotional connections, and to present oneself as a 'real person' to group members in online contexts. In an online education environment, it is related to the degree to which online students feel emotionally connected to other community members and their willingness to help and contribute to the group.

**Underserved students:** Students who diverge from the students that traditionally have made up the majority of the student population, because of their identity, background or special

needs, and experience exclusion because the system is less well tailored to their situation. We use 'underserved' to indicate that the position of this student population is not due to their abilities, but because of unmet needs.

**Holistic approach:** An approach that considers individuals as a 'whole', within their specific context. The aim of this approach is to avoid categories, stereotypes and narrow foci that reduce people to only a single characteristic and to stand-alone entities that are detached from their environment.

## Concepts relating to digital education<sup>1</sup>

**Digital education:** Education that is supported by digital tools (including platforms, systems and applications). We treat online education and digital education as synonyms here.

**Online education:** Education that is supported by online tools. We treat online education and digital education as synonyms here.

**Offline or in-person education:** Education where teacher and student are physically present in the same place.

**Synchronous communication:** When a teacher and students work at the same time, in real-time interaction with one another (e.g., via video online conference).

**Asynchronous communication:** When students can work at their self-chosen moment, without real-time interaction with the teacher.

### These approaches are used in education in various ways:

- **Fully online education, or e-learning:** Education that solely relies on an online education system, which is indeed integrated. Most commonly, communication is mainly asynchronous, yet continuous and dynamic, and, by the beginning of the course, learning activities have been planned and learning resources are produced and delivered.
- **Blended education:** Education where in-person, offline teaching is combined with online elements.
- **Hybrid education:** Education where some students follow the course in in-person classrooms while other students follow the course online. Usually, learning activities and resources are developed progressively, based on the course plan.
- **Remote education:** Education where teacher and students are not physically present in the same place.
- **Emergency Remote Teaching (ERT):** Remote teaching in response to an emergency that inhibits in-person, offline education. Being an emergency response, this kind of

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<sup>1</sup> Inspired by: [Website Centre for Innovation in Teaching and Learning, Memorial University](#), [Website Edubright](#)

remote (nowadays often digital and online) teaching merely consists of moving the in-person classes to the online setting, using the same educational concepts, working methods, and assessments of offline education, now in the digital context. It lacks a deliberate online course design, based on the specific possibilities and challenges of online teaching methods. This is what frequently happened during the COVID-19 pandemic.

Ideally, courses are purposefully designed in a way that the course makes full use of the specific features of the used approaches to create effective and inclusive education.

# 1 Why e-inclusion?

*“Europe's prosperity and way of life are based upon its greatest asset: its people.”  
(European Commission, 2016)*

Inequity persists all throughout higher education. Data at the institutional level as well as regional and European research provide hard evidence that who you are influences your chances in education. Characteristics such as sexual orientation, gender, ethnicity, skin colour, religion, able-bodiedness, or socioeconomic class often influence access to, success in and belonging in higher education. Underserved students (or underrepresented students) experience more barriers and feel less connected to most of our education than majority students. The increasing diversity in society in combination with unequal opportunities and systematic exclusion urges educational institutions, local authorities and national authorities to develop inclusive policy and practice.

As educators, we are all familiar with the transformative potential that education can have on lives. This is where the importance of **inclusive education** reveals itself, urging us to consider the manners in which education can fully benefit students from all walks of life. The urgency of this call also resonates on a European level. It is for a good reason that diversity, equity and inclusion are important core values for the EU. The European Union underscores the sense of urgency to increase equitable opportunities to high-quality education (European Commission, 2016). The EU identifies inclusion in education as an important means of social inclusion and defines inclusive learning provisions as a policy priority. Promoting equity, social cohesion and active citizenship is one of the main objectives of the strategic framework for European cooperation in education and training (ET, 2020)<sup>2</sup>.

But what do we mean by inclusive education? Inclusive education is education that is accessible and engaging for everybody, regardless of social background, identities and disabilities. The aim is that every student can be engaged in a cognitive, behavioural and emotional way, and hence experience belonging without any barriers to engagement. Inclusive education is good education for everybody, not only for underserved students.

With the sudden propelled implementation of online education, the need to develop **inclusive digital education** has become acute. The accelerated move toward online education due to the COVID pandemic has shown that developing online education is not only a pressing issue, but also an issue that requires new ways of thinking. Online education is not automatically effective nor inclusive. Creating effective and inclusive online education requires a purposeful course design and requires knowledge of the specific opportunities and challenges of digital

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<sup>2</sup> [European policy cooperation \(ET 2020 framework\)](#)

education. With this **e-Inclusion handbook**, we aim to build capacity for inclusive education in digital environments, focusing on teaching practices in higher education. We aim to:

- support educators in implementing inclusive practices of digital education in online, blended and hybrid teaching environments;
- assure that the accelerated transition to digital education prompted by the COVID-19 crisis does not exclude vulnerable groups from participation in higher education or exacerbate existing inequalities; and
- take advantage of the opportunities of digitization to reduce barriers for inclusion.

This handbook is written in the context of the EU-funded project e-Inclusion. In this project, four universities and two policy-focused organisations with leading expertise in both inclusion policy and digital learning, spread across Europe, collaborate on the theme of inclusion in online education. Participating partners are: Expertise Centrum Diversiteitsbeleid ECHO, Knowledge Innovation Centre Malta, John Paul II Catholic University of Lublin, Universitat Oberta de Catalunya, Universiteit Hasselt and Vrije University Amsterdam (project leader). Next to this handbook, we develop an online toolkit with micromodules and an online course that supports teachers in developing awareness and making their online education more inclusive.

## 1.1 Inclusive education

Building inclusive education in digital environments should start with understanding why education systems *in general* are not equipped enough to deal with the growing diversity and increasing inequities in society.

Higher education institutions are not yet inclusive (enough). Inequities in higher education are reflected in the underrepresentation of many groups of students in tertiary education and in structural gaps in educational outcomes. This also applies to PhD- and other scientific positions.

The current educational system fails to cater to the specific needs of underserved students. For instance, underserved students might experience barriers to entry because of the associated financial costs or the lack of flexibility offered to combine their study with other obligations, such as work or care tasks. Similarly, educational spaces might not be equipped to provide for the needs of students with physical or mental abilities – turning these differences into impairments. Educational settings might also be experienced as socially unsafe environments, due to the presence of various explicit and implicit forms of discrimination and/or micro-aggressions. Important to note, here, is that some (prospective) students lack the financial, cultural- and social capital that smoothens the path to and through higher education.

Making higher education more inclusive is a matter of providing chances for equal outcome, and the presence of diversity (in people, perspectives and approaches). Underlying this is the need for every student to feel represented, valued, acknowledged and have a sense of belonging. This is not achieved by merely integrating underserved students into the established system, as this system is not attuned to every student to the same extent. Making higher education inclusive involves changing of the existing structures that (implicitly or explicitly) exclude some people more than others. It requires a change of the mechanisms of everyday racism, sexism, hetero-sexism, and ableism within our institutions. These mechanisms are hard to change because they are deeply engrained in the system (for example, when the majority of senior-professor-role-models in an institution are white men). Many people are unaware of these mechanisms because these people lack awareness about exclusion. This is often the case with micro-aggressions, which are everyday actions or utterances that exclude people on a daily basis and that are hard to address because they are not perceived as offensive by the sender ('everyday sexism', 'everyday racism', 'everyday ableism' and 'everyday heterosexism') (Essed, 1984; Sue, 2010). There are numerous act of microaggression, like not being ready to share the same space (sitting a bit more far away than usual), leaving slightly less time while waiting for an answer, subtle unpleasant gestures or mimics (like rolling your eyes or frowning your eyebrows) etc. Even well-intended compliments or questions out of interest can be forms of micro-aggressions (remarks such as: 'You are so good at maths, for a woman!' 'What do you, as a Muslim, think about these terrorists?' or 'your English is very good, for a hard of hearing student'). When we want to make higher education inclusive – and establish an educational system that is geared towards the needs of every student and has a broader representation of people, perspectives and approaches – we need awareness and knowledge of inclusive education.

Making education inclusive requires a **holistic approach**: looking at a student as a 'whole' within their specific context, avoiding categories, stereotypes and narrow foci that reduce people to only a single characteristic and to stand-alone entities that are detached from their environment. At the same time, to avoid the reproduction and strengthening of inequality, institutions and employees need to employ **intentional and focussed strategies** that help understand the positions of particular underserved groups of students. As not all students have the same starting points and conditions, equity (equal outcome) is actually a better goal than equality (often understood as equal treatment). The US-based network 'Every Learner Everywhere' stresses the need for articulate and focussed (color-brave) approaches, rather than neutral (or color-blind) approaches:

*"Educators must work proactively to accommodate differences in students' learning, rather than depending on 'colorblind' or other neutral approaches. Ignoring structures and practices that create inequities in access, experiences, and outcomes is counterproductive." (McGuire, 2021: 6).*

This should be accompanied with the acknowledgement that individuals are not defined by one aspect of their identity ('black'), but that they have multiple identities that intersect and shape each other ('black, heterosexual woman'). There is a need for an **intersectional lens** that pays attention to how different structures and hierarchies work together.

Making education inclusive requires a balance between a holistic approach and attention for specifics. The guidelines presented in this handbook inspire teachers to explore and adapt to the needs of individual students (particularly underrepresented students) while the guidelines also invite teachers to make their teaching broadly accessible and engaging to include every student; applying this knowledge of the needs of individual students.

Clearly, this is not easy and requires a lot of introspection and change on part of the educational institutions and staff themselves.

## 1.2 From Emergency Remote Teaching to Online Teaching Pedagogies

The relative novelty of digital education for most educational institutions, requires additional knowledge: that of how online education and the use of digital tools impacts the accessibility and attractiveness of education. Designing and practicing inclusive digital education requires a new pedagogy, based on knowledge about the interplay of pedagogy, content and technology in the light of inclusion.

### 1.2.1 COVID-19 & Emergency Remote Teaching

The COVID pandemic led the entire education system in Europe to instantly switch to online education. This sudden introduction to online teaching partially led to positive experiences ('We can do it!', 'It is actually quite efficient', 'I feel more comfortable in class, when I participate from the safety of my home'). It made institutions, teachers and students practice with digital approaches that can help increase the quality of education. We collected students' voices from this time to give a more precise view on learning during COVID-19.

Online education has a strong potential to contribute to inclusion, as it offers new opportunities to support flexibility, access, diversification, participation and collaboration. It can lower barriers for participation by enhancing flexibility in time, space and shape, for example through recording lectures, allowing participation from different locations. Korach (2020) found that for students with motor disabilities this time-flexibility granted them extra time, to take care of their rehabilitation. Furthermore, online participation with switched-off cameras allowed for participation in more comfortable positions, e.g., students can use armchairs or change body position to the most comfortable one, take breaks for lying down. The invisibility of online education was also named by deaf and hard of hearing students in Skoczyńska (2021) as a positive aspect for inclusion. She quotes a student: *'People do not see*

*my hearing aid, they just listen or read what I want to share'. Online teaching makes it possible to "hide" the hearing impairment and makes people more self-confident while participating).*

The researchers in the project "Let's switch on your cameras" collected student voices on experiencing fear of online study. They collected experiences of students with hearing disorders and with motor disability, in the second year of the pandemic (2021). These students noticed new aspects: studying from home allows for bigger independence in everyday situation. Some of the students need special toilet equipment or meal adjustments (like they eat only blended food or drink using special cups). They do not feel comfortable enough to have a meal at the university and eat only while at home before and after classes. During online teaching they felt comfortable to have a meals or unlimited drinks during the day. Lewandowska (2021) shows how deaf and hard of hearing students also pointed out numerous advantages of online education and formulated postulated including more online solution to regular academic teaching and learning. For instance, the efficient use of study time:

*At the university I had to spent many hours just sitting at the classes. I did not understand anything as I cannot lip-read so efficiently, but the university stressed, I "have to be present" at lectures. Then, after getting the notes from the notetaker, I was coming home and spend additional time learning the content (Lewandowska 2021: 44)*

Students with hearing impairment during on-site learning experience a lot of strains and stress connected with being for many hours in acoustically uncomfortable and noisy environment, having to try to lip-read and make sense of the speech around, which is exhausting when practices for many hours a day. While online, they did not experience so much stress connected with communication and language issues:

*In online learning the sound – the lecturers' voice – comes straight to you, you do not have to "fish for" the sound, it comes in a way "straight to your brain". It is not so stressful and tiring as using CI, hearing aid and lip-reading. I felt safer and more comfortable and I understood the content better (Lewandowska 2021: 39)*

The online environment offers possibilities for sharing information in diverse ways, making it accessible to more students. Examples of the possibilities are collaborating on handouts and detailed lesson plans, providing wide access to electronic libraries, adding subtitles to spoken text, include video and artist expressions, and conducting anonymous real-time surveys.

However, the possibilities of online education were not always utilized during the pandemic. Skoczyńska (2021) conducted an international study among 70 deaf and hard of hearing persons from 15 countries in Europe, Asia, North America and Africa. Students reflected on several aspects of online education, mainly those connected with language issues. They confirmed many classes were not equipped with subtitling service (as much as 47%

participants admitted so) and the quality of broadcast made it difficult to lip-read. Switched-off cameras, though comfortable for many participants, created a serious barrier for these students to lip-read efficiently. Domagała-Zyśk (2020) also found that students did not experience the opportunities of online education. Teaching materials were sent in non-accessible formats, services like teaching assistants or technical assistants stopped being offered. Teachers and other professionals tended to take care of ‘the class’ rather than of the individual students, which particularly affected the well-being of students with extra challenges in adjusting to the online teaching rules. Students with special needs and disabilities reported that the poor digital literacy and time management skills of their teachers make it extremely difficult for them to meet the deadlines. And for them it became harder to participate in class because of hour-long ‘teaching sprees’, which were to make up for previously missed teaching time. One student expresses disappointment about the use of the digital possibilities to enhance accessibility: ‘The lack of my accommodations being ignored and disregarded is equally poor online and in-person’ (interview in Skoczyńska, 2021). Despite the rich opportunities of online teaching to increase accessibility, in the COVID emergency education even more than before, the special needs of numerous students were neglected (Domagała-Zyśk, 2020).

Furthermore, the switch to online education, in combination with a switch to a completely online social life, strongly reduced the motivation and engagement of many students (and teachers) (Korthals Altes, 2021). Students felt like an anonymous crowd to the teacher and felt that they were not acknowledged as individuals and not valued for their individual input. They did not get to know their fellow students. They refrained from active participation because they were not sure of what was expected of them and felt insecure about how their contributions would be received by the teacher and their fellow students. This was especially the case for students with psychological difficulties like social anxiety or depression (Grygierzec 2021) or students that already feel different:

*I know there is a possibility to record the meetings. I have some problems with speaking- my speech is not clear and I stumble a bit – and I am really afraid to take part in the discussions. I feel insecure knowing it may be recorded and people might laugh at me (Klaudia, in Korach 2020)*

Clearly, this reveals it was hard to establish ‘social presence’. Social presence is the ability to establish social and emotional connections, and present oneself as a ‘real person’ to group members.<sup>3</sup> It is related to the degree to which online students feel emotionally connected to other community members and the willingness to help and contribute to the group.

Many also felt not interested enough in the topics and some activating assignments felt very similar. This illustrates that flexibility not only provides students with more opportunities to engage (Rodríguez-Ardura & Meseguer-Artola, 2016), but also disengage and drop out

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<sup>3</sup> For more about social presence, see the Community of Inquiry framework (COI). <https://coi.athabascau.ca/>

(Sánchez-Gelabert, 2020). And when students refrain from participation and do not contribute to the learning dynamics, this not only has implications for the individual students, but negatively impacts the entire class.

Although these demotivating factors affect all students, many underserved students have been affected disproportionately by the measures taken during the COVID-19 emergency education (Slootman, 2020). For many students who already experienced barriers, barriers increased and accumulated. Some students had insufficient access to good technical facilities (good internet connection, high-tech laptop). Others lacked a quiet study place because they lived in homes with many family members and had to share their working space with others. Others had increased financial stress because they experienced study delay or because their income dropped. Many saw a reduction of social connections, particularly in the academic context, which might have been already relatively weak previous to the pandemic. And when students do not attend classrooms and visit the university campus in-person, this complicates the deciphering of the academic codes and norms, which is more urgent and complex for students who are raised in migrant or lower-class families. Altogether, the switch to online education has exacerbated social inequities, and increased the risk of exclusion precisely for those groups that were already struggling.

The early pandemic education, however, is not representative for the possibilities of online teaching. The education as it happened in many institutions as a result of a sudden change from brick-and-mortar contexts to distant teaching consisted of merely ‘moving’ the classes online, using the same educational concepts, working methods, and assessments of analogue education, now in the digital context. This distant education was often not based on a well-balanced ‘online teaching’ approach but rather was ‘emergency remote teaching’ (ERT) (Hodges et al., 2020; Knopik & Domagała-Zyśk, 2021).

### **1.2.2 Online education & social presence**

Nevertheless, pre-pandemic studies confirm that also in non-COVID situations, the toughest challenge in online education is the physical separation of the students from their lecturers, peers and the higher education institution (Delahunty et al., 2014; for a review, see Martin et al., 2020). Obviously, this is particularly a challenge in education that is fully online. In online education, there is a lack of in-person interaction and social cues (body language and detailed facial expressions). As was clearly the case in the pandemic emergence online situation, this lack of social presence reduces the sense of connection and belonging, which are crucial for enjoyment, willingness to participate, and openness to gaining a deeper understanding of the course content (Pilotti et al., 2017) – and eventually for well-being and study success (Balboni et al., 2018; Freeman et al., 2007; Kaufmann & Vallade, 2020). This is particularly pertinent for underserved students, whose experiences and views are less incorporated in the mainstream teaching, and who might be extra hesitant to expose themselves given their previous experiences of exclusion.

However, the impact of this lack of social presence also depends on the students' expectations. Obviously, students that deliberately choose a fully online program (e.g., at an open, distance university) have different goals and expectations than students who subscribe to an in-person program. In addition, some underserved students – particularly students who do not really recognize themselves in teachers, fellow students or the course content – prefer digital education programmes precisely because of the lack of personal interaction, which reduces the chances of painful social exclusion (Peacock et al., 2020; Korthals Altes, 2021).

Just like in-person education, online education can enable immersive learning experiences that are cognitively, socially and emotionally engaging. Yet, the understanding of these experiences requires a shift in approach: to recognise that traditional pedagogic practices are not readily transferable to digital education approaches, and to adopt an integrative view that highlights the specificities of the individual experiences elicited by digital technology (Delahunty et al., 2014). The contrast of Emergency Remote Teaching with online education that is designed as such is stark. The Universitat Oberta de Catalunya, which is an open university that offers education that is purely online, illustrates this difference. Instead of building their education on synchronous online lectures, their educational principles make full use of the strengths of online education:

- Faculty members design the courses, ensure their quality, and select, train and coordinate the instructors who will be *teaching* them. Also, they define the student assessment strategies, methods, and criteria.
- Course instructors monitor the students' activity individually, proactively assist and guide them, and assess their progress throughout the courses.
- Tutors guide students in their choice of their individual academic pathway and closely accompany them throughout their journey at the University.
- Students are aware that all instruction will happen online, so they have access to the technology that enables them to actively engage in the learning experience.
- Students are expected to be self-directed.
- Courses:
  - o are mainly asynchronous and have been fully developed by beginning of the term.
  - o make use of various technologies to facilitate a self-directed learning experience.
  - o contain interactive learning activities and defined learning spaces for social interaction.
  - o make advanced use of tools and components to facilitate social interaction of class and learning activities.
  - o contain regular check-ins by instructors who monitor progress and provide both group and personalized feedback.

### 1.2.3 Need for new pedagogies

Understandably, as it usually happens in the case of a crisis, in the pandemic situation people switched to a survival mode that left little room for reflection. This is not to blame anybody, as all of us were new in this emergency situation.

However, this emergency education revealed the need for rethinking what inclusive education is – and where we all are on the path towards reaching it in our educational institutions, also in our online education. Even when education moves back to offline physical spaces, it is likely that digital teaching elements will increasingly be integrated. Rather than merely shifting existing offline educational strategies and approaches to the digital context, we should rethink how we can best accomplish inclusive online education. We need to formulate a pedagogical framework for digital inclusive education

## 1.3 Outline: Why, How, What of e-Inclusion

With the increasing transition towards digital education, we should be cautious of exacerbating existing inequalities or creating new groups that are vulnerable due to the technological turn. We need to develop a pedagogical framework for digital inclusive education.

This is what we aim to do in this handbook, based on various strands of literature, combined with our own experiences in online education and empirical research carried out in the last year (qualitative interviews with students and teachers, participant observation and focus groups in the distant-learning context of the Corona pandemic'; see Korthals Altes, 2021; quantitative and qualitative studies among deaf and hard of hearing students and students with motor impairment, see Domagała-Zyśk, 2020; 2021).

After shedding light in Chapter 1 on the **Why** of developing a pedagogy for inclusive digital education, for education that is supported by digital tools (a pedagogy that is applicable to fully online, blended or hybrid forms of education), we further explore the aspects of inclusive (online) education in the next chapters. In Chapter 2 and 3, we go into the **How** and explain how we can look at education in order to make it inclusive in online settings. First, we place inclusive online education in the context of other educational models (Chapter 2). Then, we further dive into the Equity knowledge, formulating five guidelines for making education inclusive while we discuss the challenges and opportunities of online education in relation to inclusion (Chapter 3).

Readers who are only interested in the practical implementation can jump to Chapter 4. Here we describe the **What**: what teachers can do. For each of the five guidelines, we highlight the opportunities and challenges of using digital teaching, and we give practical examples. These examples can provide inspiration for teachers to start with making practical adaptations to make their course more inclusive.

## 2 How to practice e-Inclusion? Introducing the I-TPACK model

We invite teachers to *practice* e-inclusion, not to *achieve* e-inclusion. In line with others (see e.g., EASNIE, 2015; 2017; UNESCO, 2003; 2008; 2009), we see inclusive education as a continuous process, not as a definite phenomenon. The actual shape of education – and of inclusion – depends on time, place, discipline, teacher, and students. Inclusive education is in a continuous state of evolvement. This is why there is no one-size-fits-all, and there is not a checklist of determinate actions. However, we can offer guidelines for reflection and change, and background knowledge, that support teachers in developing their own inclusive approaches.

While the first chapter explained the *Why* of inclusive (online) education, this chapter dives into the *What*: the knowledge aspect. How can we understand e-inclusion?

We use the pedagogical triangle to shed light on the various elements of diversity that should be accommodated in inclusive (online) education. We then describe the various aspects of inclusion – using the famous ‘TPACK model’ that we extended with an inclusion-dimension into the ‘I-TPACK model’ – and deduce five guidelines for inclusive education.

First, we like to emphasize that inclusive education is good education for everybody. Inclusive education is education that is accessible and engaging for everybody, tapping into a diverse range of talents and meeting various needs and interests. This results in education that is enriching and edifying to all students – or rather to ‘every student’, as ‘all students’ implies a uniformity that hides the enormous diversity among student (Domagała-Zyśk, 2018) (see Figure 1).<sup>4</sup>



Figure 1 Shovelling the ramp: Clearing a path for people with special needs clears the path for everyone

<sup>4</sup> Source <https://cdi.uvm.edu/collection/giangrecoartoons>

## 2.1 Equity knowledge: Diversity and inclusion in education

In much of the literature, inclusive education is seen as education that fits the various needs of a diverse student population. However, developing inclusive education should not only focus on the diversity among the students, but requires attention for diversity and inclusion in the entire pedagogical triangle of student, teacher, and subject (Kansanen, 1999), which is placed in a broader context (see Figure 2). For, the teacher, student, and subject are embedded within society and should be seen as such.

Teaching does not involve ‘neutral’, ‘objective’, and ‘de-personalised’ mechanisms, but is influenced by the positions of individuals (students, but also the teachers themselves), of knowledge (including the hegemonic canon), and the institution (the particular university and its societal role and history).

We consider the creation of inclusive (online) education as an integral endeavour: inclusion is not seen as connected with a certain type of population with hidden, unrecognised, or special or additional needs, but is understood as involving all participants of the educational process: leaders, teachers, students. Hence, inclusion is only practiced if every person involved in the educational process feels welcomed and respected.

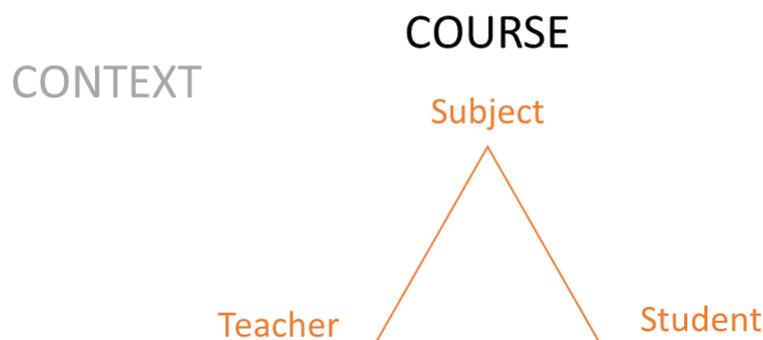


Figure 2 The pedagogical triangle

### Student

Education too often is tailored to the needs and interests of the kind of students who traditionally have made up the majority of the student body. For example, in many universities in Western countries, these have been white, native, middle-class, able-bodied, heterosexual students, without many other obligations such as care responsibilities. Other students (including students with a disability, with migration backgrounds or ethnic/racial minority identities, with a non-heterosexual orientation, of lower socioeconomic backgrounds, working students, and students with children or other care-responsibilities) often have diverging experiences, worldviews, communication styles, and resources and therefore diverging

interests and needs different conditions. Their ambitions and conditions are often overlooked or ignored. Inclusive education is more inclusive to these traditionally underrepresented students, for example through the use of diverse teaching approaches and resources.

### Teacher

Not only every student has different talents, skills, interests, perspectives, and needs, which are shaped by their social identities, but also every teacher. Although teachers, particularly in higher education, are sometimes seen as (or see themselves as) 'neutral' professionals, they are persons; who bring their bodies, communication styles, preferences, experiences, talents, and needs into the classroom. Who they are (their social identities) shape their strengths and comfort zones, as well as their implicit and explicit preferences and judgements. For instance, some teachers feel more comfortable than others in discussing sensitive topics, some teachers are more aware of what topics are sensitive topics, and some teachers find the discussion of these topics more important than others (Jabbar & Hardaker, 2013; Stout et al., 2018; Willner Brodsky et al., 2021;). Some teachers also adapt more easily to unexpected circumstances, while others like to be more in control. Not all teachers conceive their pedagogical role in the same way, some see their role in a broader way than others and feel that they are equipped to take this role.

In addition, who-they-are also shapes how teachers are judged and approached by others, including students. For example, Wekker et al. cite the instance of a colleague of colour frequently experienced being held for the teaching assistant instead of the professor (Wekker et al., 2019). Female faculty are consistently evaluated lower and are seen as less credible and professional than male faculty (Mengel et al., 2019; Mitchell and Martin, 2018).

This positionality – that who-you-are matters – for teachers requires self-reflection. Furthermore, creating inclusive education requires the teacher's commitment. Without the teacher's commitment to pursue equity and the teacher's awareness and acknowledgement of mechanisms that reproduce inequalities, and a willingness for (self-)reflection there can be no inclusive education.

### Course content

Diversity and inclusion are not only about the classroom participants, but also about the course content; the subject of the course (Wekker et al., 2019). In every discipline, and higher education in general, certain knowledge is considered as 'academic' and 'valuable', while other perspectives and approaches – from other individuals, from other regions, communicated through other media – are seen as lesser, and are often ignored and excluded (Jabbar & Hardaker, 2013; Nieto, 1999; Sabry & Bruna, 2007). When courses do include experiences and information outside of the mainstream, this knowledge is often only a sidenote or afterthought to the mainstream theory (e.g., one week with readings from outside of Europe/North-America, as a separate theme and not incorporated within the base of the course).

What is considered the canon in a certain discipline in a specific country has been shaped by historical societal developments and power structures. The academic mores, or habitus, which determine what is legitimate and thus 'academic' education, are formed by the groups who historically held positions of power in society and academia. In many Western countries, canons predominantly contain the thoughts of white, Western men, whose work is predominantly known through written texts. Knowledge and approaches outside of this knowledge framework are seen as lesser (not legitimate, not academic). For instance, knowledge based on lived experiences and open interviews is often seen as less legitimate than quantifiable outcomes, following the Western enlightenment ideal of rationality.

Inclusion of marginalized perspectives – perspectives outside of the mainstream – and serious engagement with them, makes education more inclusive. It can appeal to non-traditional students. Non-traditional students, because of their different backgrounds, positions, and experiences, often do not hold the information that is seen as general knowledge by higher education institutions and/or do not recognise themselves in the course content. Inviting and including diverse perspectives and approaches acknowledges their non-mainstream experiences and makes education more engaging for them. The following student quote illustrates this.

*Most philosophy courses I took encouraged discussion, and some professors allowed people to upload their own recommended literature. This is where I learned a lot from different perspectives and felt my own background was made relevant. (Wekker et al. 2019: 72)*

This helps a more diverse range of students to identify more with the course and perceive their own contributions to the classroom as valued and relevant. In the end, the presence of diverse topics and perspectives reduces dropout and enhances their study success of underrepresented students (Freeman et al., 2007).

In addition, the widening of topics and perspectives elevates the quality of education. Instead of the curriculum predominantly reflecting and reinforcing the worldview of one group, the curriculum enhances critical thinking and broadens perspectives when (a) diverse knowledge is included, and (b) there is more awareness of the history and position of the canon. The inclusion of diverse knowledge can challenge the established curriculum and teach students a critical perspective. Does this critical perspective lead to questions for students and teachers on the discipline and dynamics in academia *Why we have come to see a certain body of knowledge as the Main Knowledge? Who finances research in academia? Who determines the research areas, and who benefits from the outcomes? What kind of publications are stimulated? Which scholars get visa for which visits?* And arguably most important: *Who is valued in academia and why?* These reflections shine a light on the role of academia, its relevance to society, who benefits and who is left out. They also help to make science even

more societally relevant, and to make education more relevant – and hence more appealing and engaging – for more students.

The pedagogical triangle, viewed from this angle of diversity and inclusive education, is summarized in Figure 3.

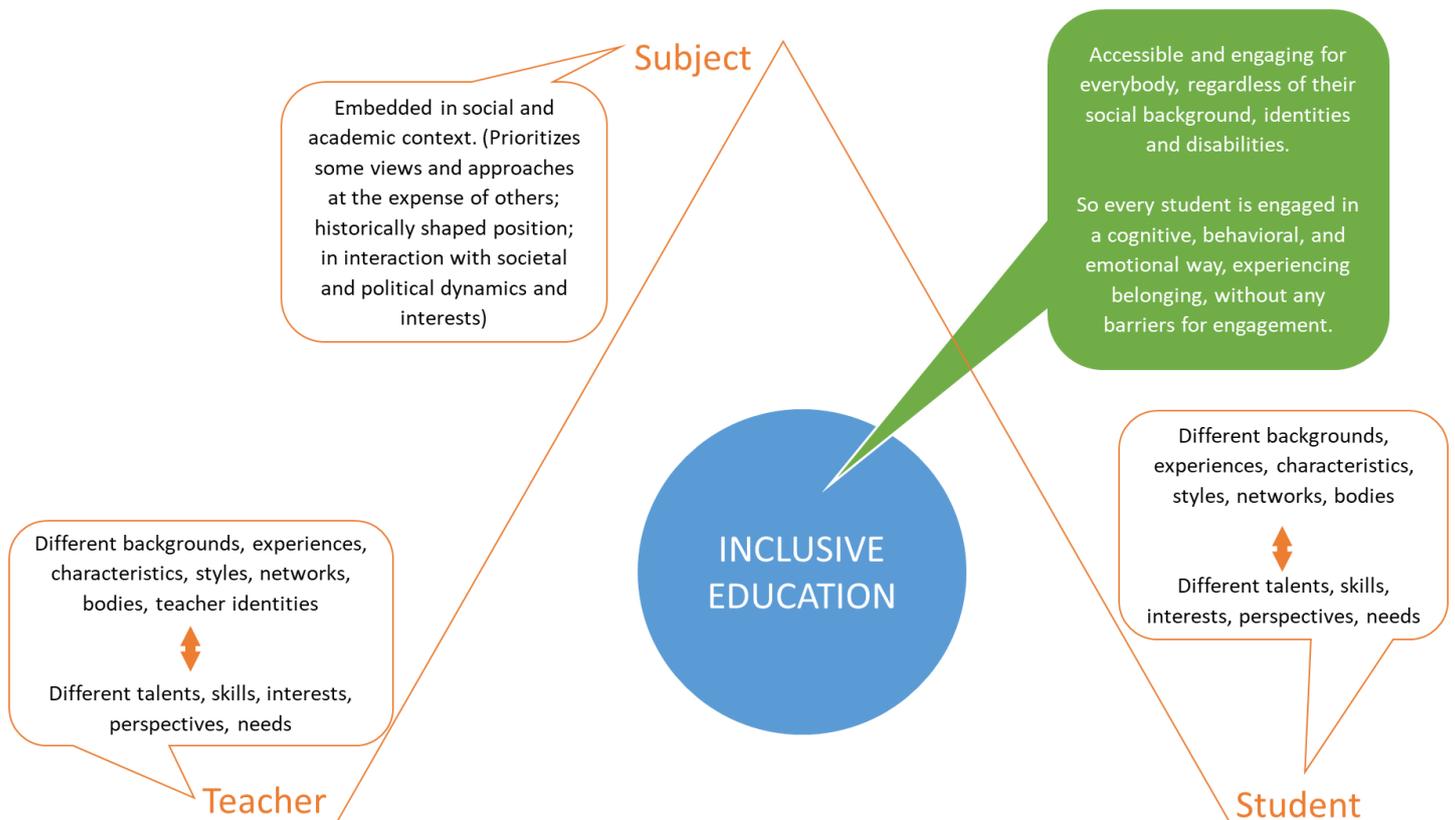


Figure 3 The pedagogical triangle through the lens of inclusive education

### Context

Our project focuses on teachers and the course level. We develop knowledge and guidelines for teachers on how they can create inclusive (online) education in their courses in the various educational areas (organized into 1) awareness, 2) knowing your students, 3) content, 4) teaching methods and evaluation, and 5) classroom climate).<sup>5</sup>

Obviously, teachers and classrooms do not exist in a vacuum. They are part of course programmes, institutes, and broader societies, which together shape overall learning goals, codes of conduct, languages and discourses, images, and financial, social and cultural

<sup>5</sup> These areas are based on areas distinguished within UDL (Burgstahler 2015, Burgstahler, Russo-Gleicher 2015) and learning goals are added. The list is then slightly regrouped to make it more concise, and slightly less oriented toward 'accessibility'.

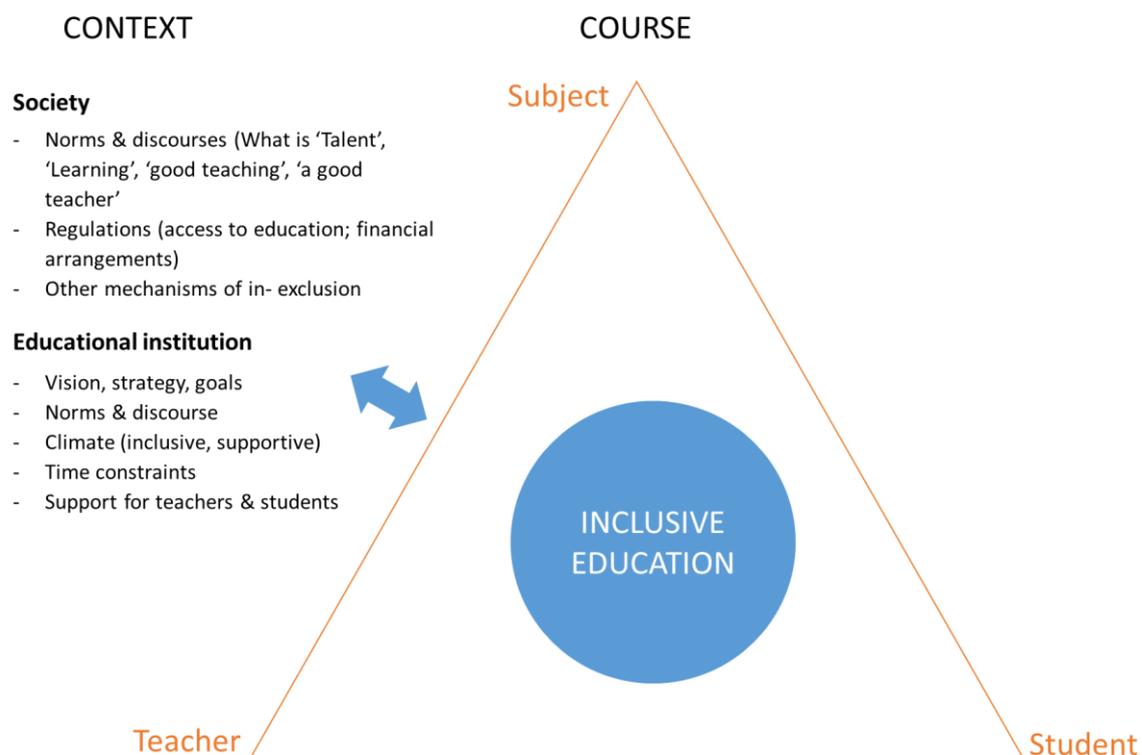
opportunities and barriers (see figure 4). All the aspects of education that are not explicated in the curriculum, but nevertheless shape the students, are called the **hidden curriculum**. These aspects include the communication styles (speaking politely to some but not to others), behaviour that is praised or punished (speaking up in certain ways at certain moments), encouragements ('you did well, for a woman'), arguments that are taken for granted ('everybody is free to follow one's own ambition') or need explanation ('I take the wishes of my parent into account when choosing a job'), jokes, food and spaces (accessibility, color of the rooms, prayer areas). These aspects all radiate specific cultural norms and worldviews, although they – to many – remain unnoticed because they are so 'normal'.

These norms also include conceptions of 'talent', 'excellence', 'quality' and are not primarily defined in the classroom but are shaped in broader society and replicated in higher education institutions' norms. This also applies to notions of 'good teaching', 'a good teacher', 'a good student' which are also shaped in society, and materialize in educational institutions' regulations, policies, training programmes, evaluation criteria, and communication and leadership styles and hence also are reflected in the staff composition. Ideas about 'valuable knowledge and skills' are shaped and reshaped within the various academic and professional disciplines. (O'Shea et al., 2016; Thomas, 2002) These conceptions all influence **which attitudes and contributions are valued**, and **whose attitudes and contributions are valued**, and hence impact who is addressed and acknowledged, whose needs and interests are met, who feels invited to participate and contribute, who feels inspired to learn, and who feels capable of educational and societal success. Educational institutions thus reproduce existing inequalities (see for example the works of Piere Bourdieu (1974; 1986) and Paolo Freire (1996), but can also in return play a role in reflecting on and changing existing inequalities.

The arrangements of higher education institutions influence the opportunities of students and teachers alike. **Financial regulations** and **physical locations** determine access to education. Evaluation criteria, sometimes in combination with a competitive climate, affect priorities of teachers and students. Time constraints too often lead to pragmatic, efficient, opportunistic approaches that leave little room for deep immersion, reflection, and real interpersonal contact. The effect of depersonalized approaches and the necessity to prioritize is seen in how higher education institutions (in many countries), have faculty members combine teaching responsibilities with research activities. Often, in these settings, **teaching is undervalued** in comparison to research endeavours. Consequently, many teachers have strong research ambitions and often have a personal profile that is strongly research oriented. They work in environments with certain images of professionalism and expertise, which traditionally have a cognitive orientation and depersonalised attitudes. Work pressure is high, teaching responsibilities fight for priority with research activities, and not all teachers in higher education have an extensive pedagogical training. This adds to the challenge of making education inclusive. The principles of inclusive education can conflict with how teachers perceive the role of education and their role as a professional, academic, and teacher. In academic settings, there is often little acknowledgment that personal characteristics – of teachers and students alike – matter in teaching and learning, and that **education is not only**

about cognitive skills, but also about social skills and personal development (see Biesta, 2020).

**Teachers have an incredibly important role** to play in providing equal access to every student, by inviting every student to learn and to recognise, use and develop every student's individual talents and learning possibilities. Nevertheless, they are only one of the little cogs in the entire social machinery affecting students and without **institutional support** from higher education institutions and broader implementation of the efforts to create inclusive and equitable environments, their efforts will have only marginal impact. In their teaching, teachers must deal with the structures of this broader context. They interact with this context, consciously or unconsciously. They can reflect on, investigate, and challenge or strengthen these broader structures.



**Figure 4 The context of the pedagogical triangle through the lens of inclusive education**

Making education inclusive requires a collaborative effort of multiple actors, both in- and outside educational institutions. Creating inclusive pathways in education for everybody equires a comprehensive and holistic strategy with partnerships, dedicated resources, structural and intentional goals, monitoring, data collection, and programs.

## 2.2 The I-TPACK model. A framework of Inclusive Online Education

As is probably clear by now, creating inclusive education does not imply that we mould everybody into the existing static and rigid system but that we change the education system. Rather than integrating individual students and teachers into an existing system, the system needs to open up and be more accessible, meaningful and engaging to more students. We also want education to contribute to the broader personal development of all students, and stimulate their critical thinking, help them understand their own roles and responsibilities, so they can contribute to an equitable society not only in the educational setting but also as citizens and future professionals. In this way, inclusive education not only leads to study success but can also be transformative and emancipatory.

Building on various theories and models, we develop a **Framework of Inclusive Online Education** based on the idea that inclusive education offers equitable access and engagement for every student. We build on the idea that teaching requires various kinds of knowledges, which is core to the TPACK model, which identifies three knowledge pillars of teaching: Technological, Pedagogical, and Content Knowledge). We add the layer of equity knowledge, or Inclusion Knowledge.

### From the TPACK model to the I-TPACK model

**The TPACK model** 'is a model that helps teachers consider how their knowledge domains intersect in order to effectively teach and engage students with technology'<sup>6</sup> (see also Mishra & Koehler, 2006). The TPACK model identifies three interrelated knowledge dimensions of teaching that underly good digital education (see Figure 5), which are:

1. Technological Knowledge (TK): Knowledge about technology and its possibilities.
2. Pedagogical Knowledge (PK): Knowledge about how to teach, including specific teaching methods.
3. Content Knowledge (CK): Specific knowledge about the subject.

The dimensions overlap, and in the overlap of the three is the 'Technological Pedagogical Content Knowledge', which is knowledge about how technology can support learning in a specific content area.

To create a model for *inclusive* online education, **the I-TPACK model**, we add the **Equity Knowledge domain** (see Figure 6). To avoid any confusion of the 'E' being associated with Electronic, we use the 'I' of Inclusion. Ultimately, the model is about the overlaps between the

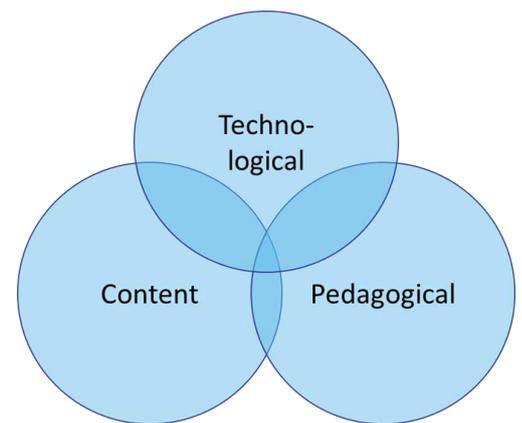


Figure 5 The TPACK model: three interrelated knowledge dimensions

<sup>6</sup> <https://www.common sense.org/education/videos/introduction-to-the-tpack-model>.

domains, the integration of the various knowledges. The Equity domain is integrated with the other three knowledges and functions as a layer. After all, making education inclusive requires understanding of how Pedagogical approaches, Technology-use, as well as the selection and presentation of Content, shape the learning processes and outcomes for every student:

1. **Equity knowledge (overall):** Knowledge about how inclusion and exclusion works and how we can create equitable education.
2. **Pedagogical knowledge & Equity:** Knowledge about how to create equity for every student through/in teaching, so every student experiences cognitive, emotional and social engagement.
3. **Content knowledge & Equity:** Knowledge about marginalised perspectives and the positionality of the canon.
4. **Technical knowledge & Equity:** Knowledge about how to use technology to enhance equity and minimise the barriers to equity in education.

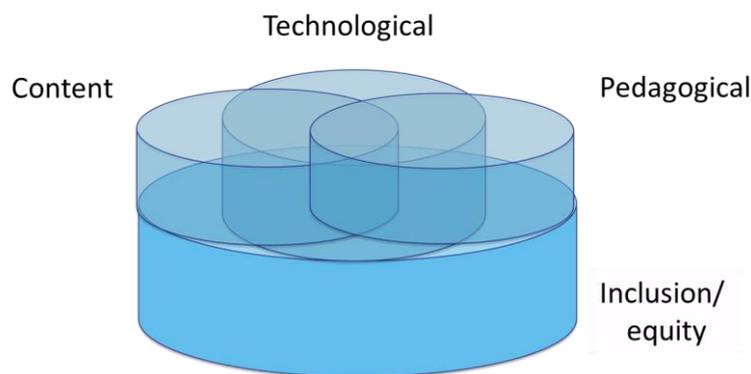


Figure 6 The I-TPACK model: with the added layer of inclusion/equity knowledge

The integrated Equity Technological Pedagogical Content Knowledge then is knowledge about

x

z  
 What the teaching looks like – its content, design and practices – is preceded by the values and attitudes of the teacher and the educational system (the *Why*). We discussed the importance of Inclusive Online Education in the previous chapter. It is also the *Why* that Equity Knowledge strongly impacts on. Because teaching is not ‘neutral’ and ‘objective’, but depends on the positions of individuals and knowledge, institutional and societal norms and habits, creating inclusive education requires a willingness and dedication of teachers to remain open to learn themselves, and to keep re-evaluating the course and the classroom dynamics. **Creating inclusive education requires awareness of how practices and approaches reproduce or challenge inequalities.** This goes hand in hand with a certain level of vulnerability for continuous self-reflection.

On the level of the practical approaches to inclusive education (the *What*), we distinguish eight educational components of teaching that are strongly interwoven (see Figure 7):<sup>7</sup>

1. Getting to know the students (the *Who*)
2. Content
3. Learning goals
4. Feedback and assessment
5. Delivery methods
6. Classroom climate and interactions
7. Organisation of the (physical/digital) teaching environment
8. Evaluation and redesign (the green, circular arrows)

In the next chapter, we will explore e-inclusion in these areas in more detail.

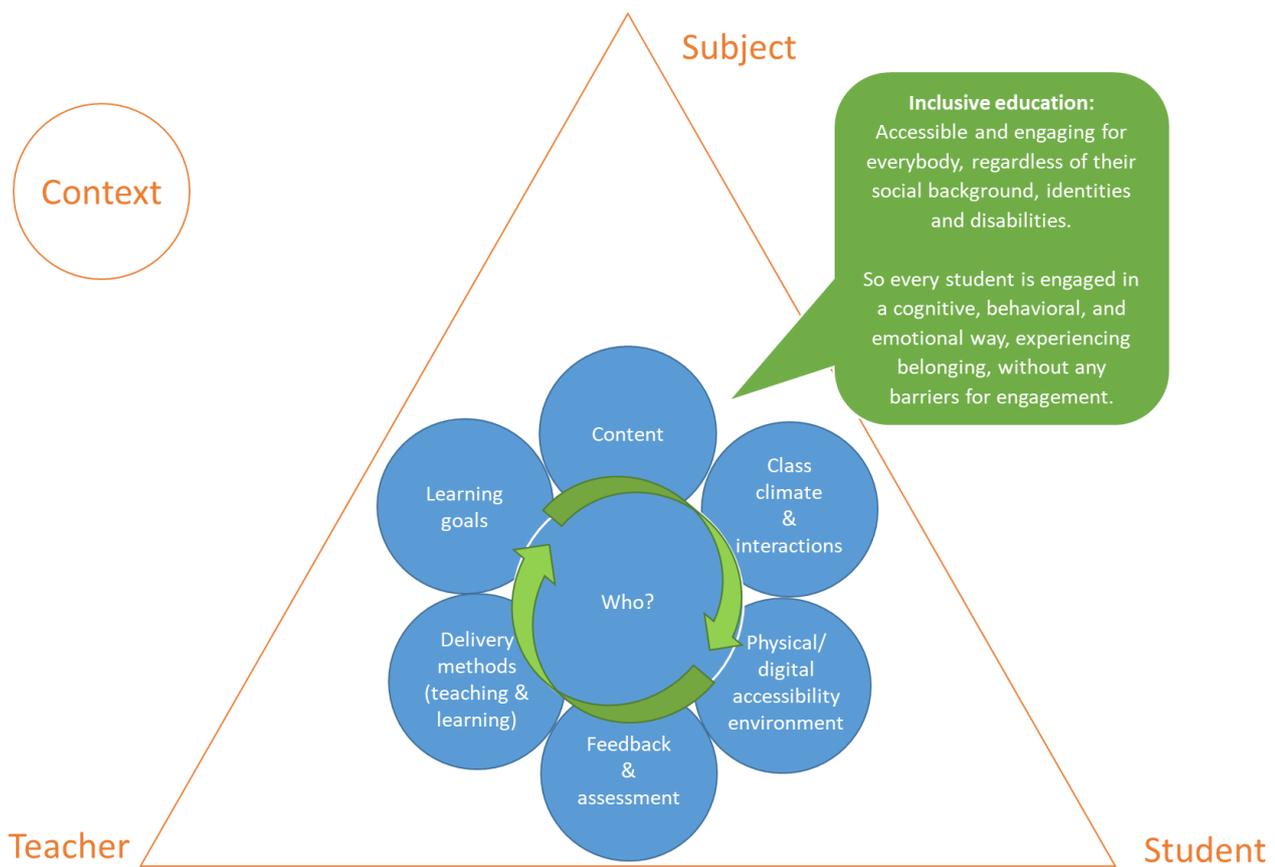


Figure 7 The eight educational areas in the Pedagogic Triangle

<sup>7</sup> These areas are based on the themes distinguished within the Constructive Alignment principle (Biggs & Tang, 2011) and UDL (Burgstahler, 2015, Burgstahler & Russo-Gleicher 2015).

### 3 What to do? Equity knowledge applied in five guidelines

Based on various strands of literature, combined with our own experiences in online education and empirical research<sup>8</sup>, we have formulated five interrelated guidelines, with suggestions for practical approaches, to create education that is accessible and engaging to every student.<sup>9</sup> (1) develop **awareness** on inclusive (online) education and learn to self-reflect throughout your career. Then during the course (2) **know the students** and adapt to the needs of the students by (3) **diversifying pedagogical practices** and by (4) **diversifying content**. This helps with creating an (5) **inclusive learning climate**, in which teachers are open for the input of students and engagement of students is facilitated by the diversified pedagogical practices and content (see Figure 8). For each guideline, we discuss the particular challenges and opportunities that digital education provides. As we understand inclusive education as a process that is in a continuous state of development, there is no one-size-fits-all checklist.

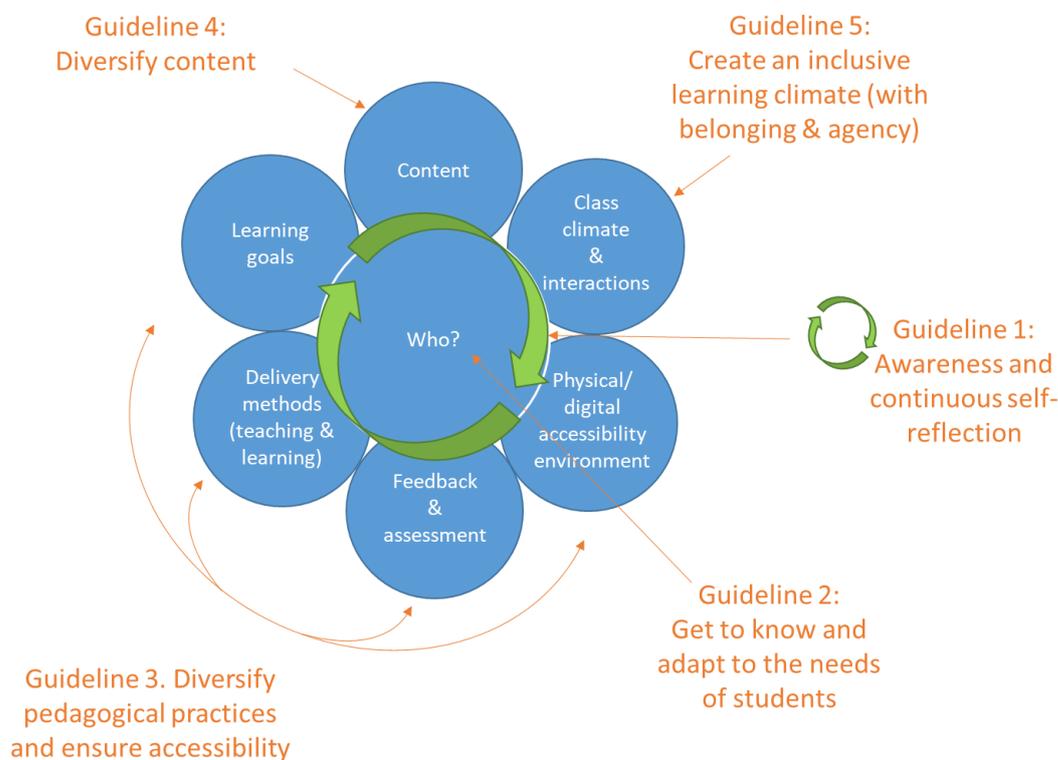


Figure 8 Equity knowledge in 5 guidelines, covering all educational aspects on course level

<sup>8</sup> Qualitative interviews with students and teachers, participant observation and focus groups in the distant-learning context of the Corona pandemic (see Korthals Altes, 2021) qualitative and quantitative studies among deaf and hard of hearing students and students with motor impairments (see Domagała-Zysk, 2020; 2021).

<sup>9</sup> These guidelines resonate with other dimensions of inclusive education, like the five dimensions presented by Salazar, Norton and Tuitt (2010) and the four main areas of the Inclusive Excellence Scorecard framework of Williams, Berger and McClendon (2005) (an evaluation model on the institutional level).

## **GUIDELINE 1. Develop awareness and continuous self-reflection**

For most teachers, creating inclusive learning – and especially in online settings – will be a process of trial and error, which is probably far from their comfort zones (as learning often is!). Like every learning process, this requires flexibility and self-reflection. This is particularly the case because creating inclusive learning requires teachers to become aware of their own positions and assumptions. It furthermore requires awareness of assumptions that are dominant in society, in the institution and in the discipline in which the teacher has been trained. Practicing inclusive education requires an increasing awareness of how dynamics of power affect the classroom (interpersonal awareness), and what role the teacher’s own position plays here (intrapersonal awareness) (see e.g., Salazar, Norton & Tuit 2010). And it does not stop at being aware: e-inclusion also entails a willingness to critically review and challenge some of these assumptions. This is a very personal process that can feel very vulnerable, particularly in an environment where the ideal of a ‘good teacher’ is still an All-Knowing, objective, neutral, distant individual.

Besides the fact that practicing e-inclusion is an ongoing learning process, continuous reflection is also needed because classroom interactions are dynamic. Students and settings are different every time. Technology evolves, and many students have much more digital expertise than their teachers. Principles for teaching evolve as well. Even disciplines, institutions, and society slowly change. Last but not least, teachers themselves develop as well, both as persons and as professionals. As no situation is the same, practicing inclusive education involves a continuous openness to the situation at hand and a willingness to keep learning and reflecting.

The good thing is that a teacher’s learning process can form a great source of inspiration for students and colleagues. Students see that there is no such thing as a faultless, perfect approach. It is good for them to see that it is acceptable to stand still and reflect in the moment or even reflect on a situation in hindsight and learn from it together (see Willner Brodksy et al., 2021).

It can be inspiring and encouraging to share experiences with colleagues, and to grow together. Teachers ‘can gain a sense of familiarity by listening to the stories told by their colleagues in response to the case,’ and when they ‘recognize that their situation is reflected in a case and they hear what their colleagues have tried in similar circumstances, they feel more confident saying or doing something they have not said or done before’ (Hughes et al., 2011: 9). Such intervision activities can strengthen the teacher team and therefore have a major impact on the overall curriculum.

Although our handbook focuses on teachers and on the course level, we want to emphasize the importance of the institutional context. As teachers are cogs in a larger machine, it is

important that teachers find and mobilize allies within their organization. Making education inclusive requires a collaborative effort of multiple actors, both in- and outside educational institutions that set structural and intentional goals, organize dedicated resources, and set up monitoring, data collection, and extracurricular intervention programs.

### 💡 **What to do?**

**Educate yourself to enhance your awareness. Reading this handbook is a great start 😊.**

- Be curious and practice self-reflection.
  - Use a questionnaire to examine your own ‘openness’ or implicit associations, such as the Multicultural Personality Questionnaire (Van der Zee et al., 2013) or the [Harvard Implicit Association test](#).
  - Reflect on yourself. Examples of reflective questions:
    - What are my own assumptions?;
    - Why do I hold particular people in high esteem?
    - Why do I feel more intended to help this person than that person?
    - Do I speak with a certain judgement about certain perspectives (politicians, methods, situations) and what norms do I radiate?
    - What factors were helpful to me during my career?;
    - What barriers did/do I encounter?
    - When and where do I feel confident and insecure? Why?
  - Reflect on your course. Examples of reflective questions:
    - How do I see my role and responsibility as a teacher?
    - What kind of attitude and I behaviour do I value in students?
    - What kind of students do I feel most/least connection with?
    - What do I expect of my students, in my (fully online, blended or hybrid) courses? Do I make this explicit? Why (not)?
    - How do I see the use of technology for teaching purposes in my (fully online, blended or hybrid) classes? How can I employ digital tools that can support my inclusive teaching?
    - Provided the equity knowledge above, what barriers could students experience in my (fully online, blended or hybrid) classes?
- Monitor and evaluate the inclusion in your courses
  - Ask for anonymous and identifiable input, in more open and more structured ways. For example, through an online discussion board, or polling tool.
- Share with colleagues! Create peer groups to discuss challenges with colleagues in a safe setting. These groups can be supervised by an expert. These sessions can have the form of Team Teacher Reflection Manual (see for a detailed description the Team Teacher Reflection Manual Baboeram, Meeuwisse & Wolff, 2021) <sup>10</sup>

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<sup>10</sup> To download from [the I-Belong project website](#)

## GUIDELINE 2. Get to know and adapt to the needs of students

In education, we want every individual to be treated with dignity, as a full-fledged, unique, sovereign participant to the learning context. Instead of integrating every person to an existing, static system, the learning context should be made responsive to the various learning needs, talents and ambitions of every student (and teacher).

Learning is optimal when the course meets the student's needs, appeals to their talents, and feels relevant to their life. This means that the teacher first needs to get to know the students, including their needs and backgrounds, and that the teaching and learning process is based on a participatory, flexible curriculum, so it can be accommodated and modified to answer to the diverse needs of the student population. This principle is the basic premise of approaches of 'personalism' and 'humanised teaching' (see for example Domagała-Zyśk, 2018; Jaeger, 2001; Krąpiec, 2008; Pacansky-Brock, Smedshammer & Vincent-Lammer, 2019; Śliwerski, 2007; 2012).

This deliberate effort to get to know the students, is particularly important in the case of underrepresented students. In the first place, because their positions, views and needs diverge from what is most standard and what teachers are most used to. Secondly, because their insecurity in participating in classrooms makes them less visible. Underrepresented students who do not know their fellow students and have experienced unfair treatment before, are more hesitant to participate and to interact in informal settings. Hence, especially in online education, especially in unsettling times like during a pandemic, many students are passive observers, not participants. Creating educational situations that are small scale and feel safer, like group projects (e.g., in digital rooms), pair work (e.g., with the use of social communicators) might be moments to engage underrepresented students in conversations and common work. This might form good starting points for forming more informal contacts (see the "Maslow over Bloom" principle, Domagała-Zysk, 2020).

### □ **Online context (challenges)**

Although getting to know the students, which requires some level of nearness, is not always easy in in-person classrooms, it seems to be even more difficult in the context of online learning environments that entirely lack in-person contact. As we will describe in more detail in the section of Guideline 4, the lack of in-person interactions and the **absence of many personal clues**, makes it **challenging to know one another, feel personal connections, and to feel safe enough to open up**, as the following quote illustrates.

*Not speaking face to face causes a certain amount of tension and lack of motivation and confidence to speak up, I have an anxiety disorder and low self-esteem, so when I*

*had to answer or give a presentation I got terribly stressed. In live classes this stress was less (Skoczyńska, 2021).*

The lack of face-to-face interactions also veils cues about identities or disabilities that would be visible in an in-person context. Although it can be pleasant when characteristics that are normally noticeable (like a hearing aid) are concealed, it can also complicate matters when other students and teachers have less understanding of one's special needs, or when students have to explicitly articulate those characteristics and needs ('I am hard of hearing'). A student with a physical disability explains:

*I started my studies at the university and my condition was obvious to everybody – I am one-handed since birth and my second hand is not working quite properly. When I was at the uni, I even did not have to ask for help – people offered to bring me books from the library, shared notes etc. They were really kind and understanding. Now I am in my flat in another town and I am totally alone with my studies. I cannot make notes – the lectures are too quick for me. Even if we work with texts, it is difficult for me to turn the page or scroll the page quickly and I cannot follow the analyses. Nobody is offering me help – there are some new courses now and people might not know I am disabled. I am considering quitting the studies. (Domagała-Zyśk, 2021)*

#### ❑ **Online context (opportunities)**

Lack of in-person contact can be experienced as an advantage. Online, classroom participants have **more autonomy in how they present themselves**. Students can feel freer to choose which aspects they articulate and which they do not articulate. For example, some deaf and hard-of-hearing students do not disclose their deafness while chatting, tweeting or posting other messages. As they admitted: "In online communication I am not perceived by others through the lenses of my disability" (Domagała-Zyśk, 2013) and another adds: "classmates respond better in-person but you don't feel judged online compared to in-person with your 2 palantypists + computer" (Skoczyńska, 2021). Being able to make an otherwise noticeable characteristic invisible in an online context can have an empowering role for some young people (although it is questionable when students need to hide parts of their identity to be treated like full-fledged people). A student who is hard of hearing explains:

*I always felt uncomfortable with my hearing aids, it felt like there were two big arrows pointed towards my ears. In online classrooms, there is less attention placed on my hearing aids. And because my fellow classmates don't know, I feel more confident in online classrooms. I was kind of surprised by myself in the beginning, that I took a lot of initiative online that I don't think I ever would have done in the physical classroom. (Korthals Altes, 2021)*

A transgender student explains:

*In-person, it was sometimes quite hard. When I went to the toilet and had a conversation with a fellow student, he was like ‘what are you doing here?’. And that made it difficult – that I had to explain everywhere: ‘Yes, I am trans, and would you please address me as a man?’ I kind of liked education online because of that... Nobody uses anything apart from ‘he’ anymore. (...) It’s just easier to put pronouns after your name and hope that people just do it right, instead of having to always explain it in the front of the entire class. (Korthals Altes, 2021)*

Furthermore, digital technologies provide **manifold ways** to collect personal information in safe and engaged ways, for example by conducting a brief survey, having students record a brief introduction video presentation, or present a visual graphic on a digital pin board (Pacansky-Brock et al., 2019).

### 💡 **What to do?**

**Identify students' aspirations, talents and needs in order to customize the teaching, to make it accessible and engaging to every student.**

- Educate yourself on the backgrounds of special needs and minority identities, and what is required to make (online/in-person) teaching inclusive and how technology can facilitate these needs.
- Have students introduce themselves to the group and the teacher (see Guideline 4)
  - offer a range of options for expression and asking questions (text, photo, video)
  - ask them for their preferred pronouns (she/her, he/him, they/them, ...) and show your own pronouns
  - use group-assignments (or breakout-rooms) so students can get to know each other in smaller groups
- Set an example by sharing personal details that illustrate that diversity and vulnerability are accepted.
- Inventorize needs, interests, knowledge, skills and talents, including digital skills and needs (in anonymous and/or named ways, in synchronous or asynchronous assignments), for example through a chat function, discussion boards like Padlet, or polling apps like Mentimeter. Without in-person contact, be (even) more open to students' special needs.
- Involve students in shaping the course, employing technology to facilitate participation and collaboration (see Guideline 4).
- Enable yourself to adapt your educational approach to these needs during the course.

## GUIDELINE 3. Diversify pedagogical practices and ensure accessibility

Clearly, the current ‘one-size-fits-all’ education, which is designed with the imaginary ‘average student’ in mind does not fit every student. If we want to make sure that every student can participate in education, regardless of their exceptional abilities or learning difficulties, identity, background, family situation, and financial situation, we need to reduce barriers for education.

This calls for diversity in educational approaches, in line with the **Universal Design for Learning framework (UDL)** (CAST, 2011; Domagała-Zyśk, 2018; Edyburn, 2010; Meyer & Rose, 2005; Meyer, Rose & Gordon, 2014; Rose & Meyer, 2002; 2006). According to this framework **all educational strategies, materials and locations should be accessible, flexible, and easy to use to every student**. Universal Design goes beyond technical adaptations and includes the design of the curriculum. An inclusive curriculum is not created with the imaginary ‘average student’ in mind, but is designed to fit every student, including those with exceptional abilities or learning difficulties, and those with demanding family or financial responsibilities.<sup>11</sup> Sometimes, this requires individual adaptations, but this is only in exceptional cases. Courses should be developed in such a way that they can be used by the largest possible group of people without the need for specific adaptations, going from one-size-fits-all to multi-faceted-shape-fits-all education. A course should be designed so it can be followed and possibly passed by every student who participates in the course. When students with special needs are admitted to a course, it is the responsibility of the educational institution not to excuse students from certain tasks, but to make courses and tasks accessible.

We elaborate on three central pedagogical components, which of course are closely aligned (see constructive alignment, Biggs & Tang, 2011):

- a) Learning goals
- b) Feedback and assessment
- c) Delivery methods: teaching and learning

### a. Learning goals

A course teaches cognitive skills and knowledge, but there are also always social and personal learning processes present, whether consciously designed or not. The way a subject is taught displays specific communication styles, ways of reasoning, values and views of the world. It shows the ‘hidden curriculum’. The ways students and teachers interact show what social interaction looks like in higher education, and whose contributions are more valued than others, and what contributions are more valued than others. Higher education also shapes the individual capabilities of the student.

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<sup>11</sup> See also Rose T. (2013). A myth of average. [TED talk](#).

This is not only an inseparable aspect of educational dynamics, but it should be included in the explicit learning goals. Inclusive courses have a wide spectrum of learning goals, which encompass all aspects of learning; not only **cognitive learning goals** (subject-related knowledge and skills), but also **social learning goals** (social interaction and getting to know explicit and implicit codes of conduct, habits and cultures) and **personal learning goals** (development of critical thinking, self-reflection, and personal growth) (see also Biesta, 2020). An example of a personal learning goal is the learning goal ‘take a critical stance towards existing literature’, which illustrates the courses preoccupation with teaching students ‘critical thinking’.

Learning goals shape the course and define the knowledge and skills that are valued. **Involve underrepresented students** in the process of formulating the learning goals can help make these goals more inclusive. Discuss how the students would meet the expectations. Ideally, a course contains goals that can possibly be achieved by every student who participates in the course. Sometimes, individual adaptations are necessary. For example, if the goal includes some type of fluency or speed, students with motor or dyslexic condition may need fluency defined in alternative ways, with less time pressure.

#### **b. Feedback and Assessment**

Although assessment is often a kind of a barrier – some students pass it and some not – inclusive **assessment should not create unnecessary barriers**. Goal of the assessment is to assess the knowledge and skills necessary for a certain course and for a future profession. However, often, the way of testing does not bring out the full knowledge and skills of students. Simple and clear instructions, precisely defined terms, maximum legibility, readability and comprehensibility are indispensable for some non-traditional students, but are beneficial for every student. Inclusive assessment is flexible and offers choice to students. Ideally, the student is able to choose *how* they can show what they know, choosing the form of assessment that enables them to bring out their knowledge and skills in the best way. The leading question is here: What may be preventing every of my students from showing their full knowledge and skills?

In line with UDL, **assessment procedures should be suitable for an as wide group as possible**. Often, for example, in the case of oral exams, deaf students are advised to do a written test, thus being outcasted from the group. Better is to prepare semester projects or final tests in at least two formats (e.g., oral or written; as a public speech or recorded film material, or an essay, poster, website, etcetera). And if the multi-form assessment is designed based on the same assessment matrix or rubrics etc, the same instrument can be used for grading. In some cases, it is necessary to provide specific support (reasonable adjustments, modifications and accommodations) to some students.

Given the broad learning goals, which include social and personal learning goals, and the importance of student engagement, **formative assessments** (feedback) have many benefits in comparison with summative assessments (grading). It enables students to better understand

and monitor their own growth. Secondly, through regular formative assessment, not only ‘products’ of learning can be evaluated, but also students’ engagement. Then, formative assessment not only assesses students’ participation but gives them clear instruction how to achieve next goals and boosts their engagement.

### c. Delivery methods (teaching & learning)

Inclusive education that is accessible and engaging to every student consists of a **variety of delivery methods**, suiting the educational setting (fully online, blended or hybrid) that appeal to a range of leaning styles, to optimally connect with the abilities, needs, talents and ambitions of every student. To accommodate to the students’ needs and development, the teaching and learning activities should be adapted along the way, in response to results and also through the input, feedback and contributions of students.

In inclusive education, students learn to engage with differences and different perspectives. In practical sense, this asks for a diverse composition of working groups. Students’ engagement with diverse perspectives can be achieved by using the VU Mixed Classroom Educational Model’s three phases: **Sensitizing, Engaging** and **Optimizing**. Meaning, students should have activities to (1) be made sensitive to existing diversities and their own positions, (2) engage with diverse perspectives and learn to deal with moments of tension, (3) integrate and combine perspectives to formulate creative solutions (see Appendix A (Ramdas et al., 2019)).

#### ❑ **Online context (challenges)**

The online education in most of the educational institutions that made a sudden shift to purely online education during the COVID pandemic, got the shape of ‘Emergency Remote Teaching’ rather than purposefully designed online education. In-person lessons were simply relocated to the online environment. However, in online education, which is less naturally engaging than in-person classes, it is not enough to simply offer content and learning materials to students. Teachers should deliberately design online opportunities for active participation and collaboration, which brings new challenges in the online education context.

Technology-use in teaching has great opportunities for diversification of teaching approaches and materials, but also brings challenges. One important point of attention is the accessibility of the technology. Teachers should try to keep barriers for access and participation as low as possible, by making materials Perceivable, Operable, Robust and Understandable (POUR)<sup>12</sup>, while keeping in mind that **students differ in technological skills and confidence, but also in the accessibility of good equipment** (laptop, software, internet connection). Teaching, particularly synchronous lectures, can be severely impacted by technical issues such as poor quality of the equipment and services (low sound or picture quality), technical problems in

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<sup>12</sup> <https://aem.cast.org/create/designing-accessibility-pour>

connections ('frozen screens'), 'black screens' (when participant do not use their cameras), additional noises (e.g., when several microphones are on) (Best, 2021).

A lack of face-to-face interaction can **complicate the social and personal learning goals** in online courses, which are incredibly important if students are to develop from young adult students into confident, independent, responsible professionals. Without face-to-face interaction, it is harder to establish personal connections that facilitate the constructive social interaction and collaboration in- and outside the classroom that help students shape their professional/academic voices. As mentioned in guideline 2: it is essential to know your students and for them to know each other to create an inclusive learning climate in which the educational quality can be elevated. The students in our research, who switched from in-person to online education during the Corona pandemic, felt it was harder to know what the teacher expected and how their contributions were received by the teacher and other students (Korthals Altes, 2021). Codes of conduct and communication styles are harder to 'read' in online settings, and consequently, they are harder to develop. The resulting reservedness hampers the students' achievement of the social and personal learning goals.

#### □ **Online context (opportunities)**

Making educational strategies, materials and locations accessible, flexible, and easy to use can greatly benefit from technology. First of all, digital education offers many opportunities **to differentiate in the forms** that information, exercises, assessment and feedback are organized. It is (relatively) easy to combine text, images and sounds, add subtitles, transfer texts to audio, and include translation tools. Online classes, for instance, give many possibilities to write, not only to speak – and this creates a great chance to participate for these students who feel uncomfortable speaking up, either due to some personal characteristics (like extreme shyness or lack of self-confidence), negative experiences with speaking up in class (like microaggressions due to an accent or use of speaking vocabulary) or speech disorders.

Online learning also enhances the possibilities for **individualized learning**. Digital teaching increases **place-flexibility**, providing access to students and teachers who are far away and/or are less mobile. The following quote of a student with motor challenges illustrates how this can broaden horizons:

*With this online pandemic education possibilities to stay at home and have the learning materials delivered online, I have the impression I can study at any university in the world. (Korach, 2020)*

Online education provides possibilities for a platform that – in combination with diversified content, assignments and assessments – gives students the possibility to shape **different learning paths or trajectories**. Depending on the course design, they can choose between various paces, various forms of participation, assignments and assessments. Furthermore, it

creates the option for students to engage with their own selection of subjects within the course content, namely those they are most interested in.

Digital asynchronous teaching methods also increase **time-flexibility**. It facilitates access for students and teachers with multiple responsibilities (work, care), with higher levels of fatigue, or who could not comply with rigid rules in in-person classrooms for other reasons. As a student with a hearing impairment states:

*When at the uni I lost a lot of time, just sitting at the lectures (I was obliged to be present) and not hearing anything, as there was no induction loop in the room. I studied the material later at home when I got notes from my assistant. Participating in the lectures for the sake of participating and not hearing a lot – it was for me a waste of time. Now I can manage my time better. (Lewandowska, 2021)*

The time efficiency, as well as the flexibility in time and space is also the reason that students choose for the distant online education at Open Universities. Most of these students are ‘adult students’ or ‘mature students’, who enter higher education when they are older and have more working experience, and who often combine their study with a near-to-fulltime job. For most of them, the social and personal learning goals are less important during this educational phase. They have already established their social and personal skills in an earlier life-phase.

### 💡 **What to do?**

**Create multifaceted-education-for-all, with reduced barriers for access, so every student can participate in education, regardless of their exceptional abilities or learning difficulties, identity, background, family situation or financial situation.**

It is important to get to know the students’ barriers and adapt to these, provide clear instructions, test and introduce technological applications in low-key ways, and diversify in (technological and online/ in-person) approaches.

- **Organisation: Make the in-person/digital teaching environment as accessible as possible:**
  - Reduce barriers for access
    - ...to physical locations for people with special needs in terms of mobility (e.g., no stairs or high doorsteps).
    - ...for people with special needs in terms of concentration, dyslexia, mental health (e.g., frequent breaks (particularly online!), allow students to switch off their cameras).
    - ...to online education for people with less-than-optimal equipment (e.g., bad WIFI, slow computer) or inconvenient home locations (e.g., shared rooms) (e.g., allow for flexibility in terms of online synchronous

- presence, allow students to switch off their cameras, be reluctant with synchronous assessments)
- ...to consume the teaching material. Provide extra facilities for people with special needs in terms of vision and hearing. In online contexts: use a good microphone/clear audio, reduce side noise, include subtitles.
  - Provide clear instructions
    - Explain your use of technology, and test and introduce technological applications in low-key ways.
    - Use language(s) that everybody understands well. Acknowledge and appreciate that students from different regions have different accents.
  - If possible: combine in-person with online education (blended and hybrid), and (also) offer asynchronous teaching to allow for flexibility in space and time.
- **Learning goals: Set inclusive, holistic learning goals that include all aspects of learning (not only cognitive, but also social and personal).**
    - Ensure that every student knows and understands the learning goals.
    - Include in the learning goals:
      - Learn to critically engage with multiple perspectives
      - Develop self-awareness about one's own positionality
      - Develop social interaction skills, sensitivity of power dynamics and subtle processes of inclusion and exclusion in interactions
    - If the goals cannot be made inclusive for every student: Adapt the learning goals to the special needs of individual students.
- ★ See for more inspiration the taxonomy of Significant Learning ([Fink, 2003](#)) and the VU Mixed Classroom Educational Model ([Ramdas et al., 2019](#)).
- **Feedback & assessment: Organize inclusive (peer-) feedback and assessment, in multiple, flexible forms.**
    - Make assessments accessible and avoid unnecessarily barriers through the assessment form
      - Ensure that every student at the offset of the course understands the assessment
      - Ensure that every student understands and can meet the technical conditions for the assessment at the moment of the assignment.
      - Make assessments as accessible as possible in terms of layout, fonts, timing, clear instructions etc.
      - Offer multiple forms of assessment (writing, verbal, video, etcetera)
      - If the assessments cannot be designed to be inclusive for every student: Adapt to the special needs of individual students or offer individual support.

- Align the assessment with the learning goals, include hereby not only the cognitive goals but also social and personal learning goals.
  - Make feedback accessible, understandable and, above all, constructive to every student.
  - Prioritize formative (feedback oriented) assessments over summative assessments (grade oriented).
  - Include (peer-) evaluation of cooperation to ensure that students take collaboration seriously, e.g., through technological tools like BuddyCheck or Feedbackfruits.
- Have anonymous grading (evaluate and grade assignments without knowing which student made the assessment), with the support of technology.
- **Teaching and learning (delivery methods): Offer student-centred, inclusive learning activities in multiple, flexible forms, in which students are co-producers (see also Guideline 4).**
  - Offer teaching that is aligned with the students' talents, needs and interests.
    - Offer activities that help students capitalize on different perspectives through Sensitizing, Engaging and Optimizing.
    - Compose working groups in such a way they are diverse (although it should be avoided that minority students are the only non-traditional student within a group)
  - Make the setup of the course dynamic, so it can be adapted to the circumstances, and make the student co-producers of the course, supported by technological tools that enable (anonymous and identifiable) collaboration.
    - Offer multiple forms of activating/participatory learning activities, supported by technological tools that enable (anonymous and identifiable) participation and collaboration, e.g., use quiz functions, survey tools like Mentimeter, or collaboration tools like GoogleDoc.
    - Offer course content in multiple forms: different media, shapes (text, audio, video) and levels of abstraction.

★ See examples of in-person and online learning activities in the documents about the VU Mixed Classroom Educational Model (Ramdas et al., 2019; Ramdas et al. 2022).<sup>13</sup> For advice on designing inclusive courses see the POUR model (Perceivable, Operable, Understandable, and Robust) developed by CAST (Centre on Accessible Educational Materials).<sup>14</sup>

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<sup>13</sup> <https://vu.nl/en/about-vu/more-about/mixed-classroom>

<sup>14</sup> <https://aem.cast.org/create/designing-accessibility-pour>

## GUIDELINE 4. Diversify content

Inclusive courses engage with perspectives of non-mainstream regions and non-mainstream thinkers. Inclusive courses also include a broad range of examples, illustrations and visuals. For instance, real-life examples are included, and contributions from a more personal perspective are invited and used.

As explained in section 2.1, engagement with marginalized perspectives and a critical reflection on the canon enriches education for every student, and makes education more inclusive and appealing to underrepresented students in particular. The widening of topics and experiences discussed in the course enhances critical thinking and broadens perspectives (Ramdas et al., 2019). First of all, diversity in perspectives widens the ‘hidden curriculum’. Diversity in perspectives signals to every student that knowledge is not only created in the West from a white male perspective, but that also other perspectives and other people count. When non-mainstream experiences and perspectives are integrated, this validates the experiences and identities of underrepresented students, increasing the relevance of the content for them. Students are motivated when the course feels relevant to their personal life or to societal issues that they find important. To make the course equally relevant to underrepresented students, it is important that a range of real-life situations are included, including for example special needs and disability. This strengthens their engagement and self-efficacy (Tuitt, 2018). Besides a greater relevance of the course for underrepresented students, students are also more likely to participate when the subject links to their interest, expertise, or experience. Including diverse perspectives and examples in courses thus leads to more active participation from a more diverse group of students, which elevated the classroom discussion to a higher level.

☐ **Online context (challenges):** Challenges in diversifying content are roughly the same in online and in-person education.

☐ **Online context (opportunities):** Online educational settings offer extended opportunities to find, access, include and engage with non-mainstream perspectives and approaches, for teachers and students alike. This, for instance, includes materials that are not based on written texts in the form of articles or books, but rely on blogs, images or film. As mentioned in Guideline 3, the online context also offers direct translation possibilities, which facilitates the inclusion of materials in various languages. The accessibility of online resources facilitates co-creation with students.

### 💡 **What to do?**

**Create diverse and inclusive content, which includes multiple perspectives and has relevance to every student.**

- Include diverse perspectives in the course material that are discussed throughout the course
  - Be aware of the origin of the bulk of the course material and be honest about the course material to students and explain why these sources were selected.
  - Actively engage with marginalised perspectives by including them in the course material as much as possible. Hereby, be aware of the historical and/or societal importance of this material during classroom discussion.
- Be open to input (and ask for input) from students who can share their worldview, expertise, experience, or source material in the course.
  - Have students contribute to the course, offering content, and take their contributions seriously. For instance, by explicitly assigning a specific space in the online learning environment where students can share their additional material.
  - Connect with experiences and worldviews of every student by giving students room to explain their view on a topic without stigmatization (before and during the course).
- Explore/explain the positionality of the canon (to yourself and to your students).
  - Reflective questions (include but are not limited to):
    - How come that we generally read literature from some kinds of authors (e.g., male, Western, white authors) and not from others in a certain discipline?
    - And that we have come see a certain approaches as THE way to research, measure or calculate a specific problem?
    - Why do we know everything about certain groups and not others (male bodies, psychology students)?
    - And what do we signal to our students when they only see white, thin, extravert, heterosexual, able-bodied, middle-class people in the visuals and textual examples?
- Use inclusive communication and images, and avoid stereotypes (see also Guideline 5). This contributes to a sense of safety necessary for students to fully engage in classrooms, which is even more important in online education due to students generally not knowing their fellow students and teachers.

★ For more inspiration: See the literature about **Inclusive Excellence**, as developed by Tuitt and others (Danowitz & Tuitt, 2011; Salazar, Norton & Tuitt 2010), **Culturally Responsive Teaching (CRT)** (Gay, 2001; Gray 2010; Ladson-Billings, 1995; Morong & Desbiens 2016; Nieto, 1999; 2000; Villegas & Lucas, 2002), and the **VU Mixed Classroom Educational Model** (Ramdas et al., 2019).

## GUIDELINE 5. Create an inclusive learning climate (with belonging & agency)

The previous guidelines are interwoven with the overarching guideline 5: create an inclusive learning climate in which every student feels safe to learn and participate. It is important that students feel they belong as a member of the learning community and where they feel their contributions matter. When students experience the classroom environment as unsafe, they are reluctant to interact and their study success will be affected negatively (Ambrose et al., 2010; Freeman et al., 2007; Marchesani & Adams, 1992; Steele & Aronson, 1995; Zumbrunn et al., 2014). To learn, students need to feel known, acknowledged and appreciated, and to play an active role in the learning process and the shaping of the classroom dynamics.

An inclusive climate is **free from microaggressions, stigmatization and stereotyping**. This requires awareness of teachers and students on how everyday interactions can (unconsciously) exclude individuals. Racism, sexism, ableism, heteronormativity, etc. are deeply engrained in our norms and practices, and thus in our hidden curriculum. For example, stereotyping and micro-aggressions can hide in well-intended expressions ('For a woman, you do great in maths!') and how seemingly neutral expressions reflect dominant positions and habits ('where did you all travel to during the summer holiday?'). Even casual references to minority identities ('female', 'black', 'Asian', 'poor', 'disabled') can trigger the underlying stereotypical images and function as self-fulfilling prophecies (Spencer, Logel and Davies, 2016). An example of this 'stereotype threat' is that when students are told that women underperform to men on a specific maths test, this lowers the actual performance of female students (Spencer, Steele & Quinn (1999) in Ramdas et al., 2019).

This example illustrates how **feelings of belonging**<sup>15</sup> influence study success. Belonging is related to having good and constructive relationships with teachers and with other students, and feeling valued and acknowledged (Tinto, 1993), calls this 'academic integration' and 'social integration'. Students that feel like they belong in the classroom, who are in a course free from microaggressions, stigmatization and stereotyping and have good contact with fellow students and teachers are likelier to successfully participate in and finish the course. Belonging is also related to being familiar with the codes of conduct (the educational habitus).

However, the aim of providing an environment in which everyone feels safe to contribute and to make mistakes, can conflict with the discomfort that comes with learning. In a diverse and inclusive learning environment, academic students are challenged while their dignity is always

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<sup>15</sup> For research supporting these claims on feeling of belonging in education or for more information on belonging in higher education, see Hoffman et al. (2002); Johnson et al. (2007); Master, Cheryan & Meltzoff (2016); Meeuwisse, Severiens & Born (2010); Thomas (2002); Freeman et al. (2007); Steele & Aronson (1995); Marchesani & Adams (1992); Zumbrunn et al. (2014); Tinto (1997); Owens & Massey (2011); Harrison et al. (2006); Spencer & Castano (2007); Spencer, Logel & Davies (2016); Spencer, Steele & Quinn (1999) and Steele & Aronson (1995).

protected. As learning is about expanding knowledge, navigating diverging perspectives, and stretching frames of reference, learning can involve uncertainty and even discomfort. Ideally, there is space for **'intellectual discomfort' while protecting 'dignity safety'**, so every classroom participant can feel 'free of any reasonable anxiety that others will treat one as having an inferior social rank to theirs' (Callan, 2020: 65). In practice, however, this balance can be complex, as intellectual debate can be personal, and stances are rarely neutral. Often, there is a hierarchy in stances. The majority position is seen as the neutral position, which does not need argumentation (e.g., 'it is good to make your own choices' or 'a good student is a student that actively participates in discussions') while other positions require legitimization (e.g., 'it is good follow the wishes of your parents' or 'it is better to not speak up immediately and to delay opinions'). Clearly, representing a minority position makes one vulnerable, especially when articulated by underserved individuals.

Moments of friction are inherent to classroom dynamics, particularly in settings where students engage with different perspectives. These moments of friction, where dignity and safety can be under threat, are so-called **'Hot Moments'**. A hot moment occurs, for instance, when students debate a topic and one student (unknowingly) uses a derogatory term or a student points out a stereotype which is perpetrated throughout the course material. In these moments, classroom participants feel the tensions rising. Hot moments are important **opportunities for learning**. In hot moments, students (and teachers!) learn to dissect their own perceptions of what is a neutral stance and whether in actuality this stance is based on for example a stereotype or stigmatization (which is not always the case). Nevertheless, they can be scary for teachers (and students) and can be difficult to deal with in constructive ways (see Willner Brodksy et al., 2021). However, when moments of friction are ignored, this strengthens the status quo. For education to become more inclusive, teachers and students need to learn to be more comfortable with discomfort and unexpected situations.

An inclusive climate also grants students **agency**. Activating and participatory approaches are not only important for student to learn the course content, but these approaches also validate the experiences and identities of students and strengthen their self-confidence in learning. This is particularly the case for underrepresented students, who generally less automatically connect with the mainstream norms, codes of conduct, positions and worldviews that are held evident in the educational context, with the habitus of the institution. They are raised in contexts with a different habitus, have different experiences than mainstream students (and teachers!), and lack role models. They often have shown immense amounts of perseverance to get into higher education, have a broad range of experiences, and are masters in switching between different contexts. Nevertheless, they are often seen as 'lacking' and get little affirmation. Through the hidden curriculum, the institution tries to assimilate them into the system, often without acknowledging or respecting the codes and strengths that the students already hold. Unsurprisingly, many of them have lower levels of self-confidence than traditional students (Ramos-Sánchez & Nichols, 2007).

In an inclusive classroom, teachers do not have the All-Knowing position and students, including underrepresented students, are seen as **knowledgeable participants** whose experiences, perspectives and questions are valuable contributions to the learning setting. When students actively participate and are seen as co-constructors of the classroom, or even the course, this is enriching for everyone's learning. It not only strengthens the course content (cognitive skills), but also the group dynamics and the personal development (social and personal growth). Nevertheless, being open to unexpected situations and welcome marginalized perspectives can be challenging for teachers. This can also be challenging to students themselves as well, who often expect the teacher to play this All-Knowing role.

In short, an inclusive learning climate:

- is safe for every student to express & learn;
- protects human dignity, but allows for academic discomfort;
- creates and fosters a Learning Community;
- encourages dialogue and respectful interpersonal relationships;
- has constructive interactions, and where Hot Moments function as moments of learning; and
- forms a context for optimal collaboration with students as co-creator of the learning environment so that the learning includes the experiences of every student.

#### □ **Online context (challenges):**

Creating an inclusive and safe environment can be quite challenging in in-person classrooms, let alone in online classrooms, particularly when in-person interactions are completely absent. Learning (and belonging) is strongly facilitated by Social Presence – a term that is used only in relation to online classrooms because in in-person classrooms Social Presence is a given. Social presence is defined as “the ability of learners to project themselves (i.e., their personal characteristics) socially and emotionally, thereby representing themselves as “real” people in a community of inquiry” (Garrison et al., 2003: 115). It refers to the degree to which participants feel emotionally connected to other participants, and to a willingness to help others and contribute to the group dynamics (Balboni et al., 2018).

Our research in the context of the emergency remote education during the COVID pandemic shows that establishing connection with fellow students and teachers is extremely challenging, which impacted the students' participation and engagement (Korthals Altes, 2021). The underrepresented students interviewed felt more uncomfortable in online classrooms than in offline classrooms, and often refrained from active participation in class. Although they felt they did get to know the teacher (a little bit), they felt that, in turn, the teacher did not know them. It was hard to make a good impression – or any impression at all – and they **felt they were just an anonymous crowd** to the teacher.

*I have the feeling that in online classrooms you're more of a number. Often you don't have to have your camera on. With physical classrooms the teacher really looks at you*

*and asks things directly at you. In physical classrooms you feel way more present and the teacher sees that, while in online classrooms you just feel as a number, quite anonymous. (Korthals Altes, 2021)*

They felt they hardly got to know the other students. During online interactions, often only a few other students' video-screens were visible – those of the most active students, and only of those with their camera's switched on – and the interaction was very limited and superficial, also when students were invited to interact. They were **insecure of how the teacher and their unknown fellow students would react to their contributions**, which made them avoid to actively contribute to class conversations (or even to have their cameras switched on).

*If you feel the security of the group because you know that people have liked scenarios of yours before. Then you know that when you say something and somebody doesn't agree with it, that someone will help you with the argument. In the online classes, you don't really have that. Maybe a little from the people you already know, the people you trust or have a deeper relationship with...But the decision to make an argument can only be made if you are strong enough or confident enough about what you're saying and that you know you can protect it all by yourself. (Korthals Altes, 2021)*

This points to the paradox that in online classrooms students are less known as a person but that contributions are **hyper visible**. Names are visible all the time, chat contributions are tagged, and in conference tools the active speaker pops to a central place on the screen.

Some students experience '**zoom-phobia**' that makes them avoid active participation or avoiding synchronous online classroom entirely. In her research among university students, Grygierzec (2021) found various factors that can frighten students: looking not the way they usually look when in public space; having their image recorded on a 'crazy' moment and uploaded online on social sites for a joke; showing their private space and sharing 'home-noises', like voices of family members; interrupting other people when starting speaking; being recorded when discussing their views on sensitive topics; and more. Students with motor impairment in Korach's research (2020) expressed the concern that their speech disorders or motor dysfunctions might be recorded or negatively commented upon by the group. It needs pedagogical skills to manage these fears, understand them, and to create a safe space in online education where every person feels welcomed and respected.

In addition, the students in our research often felt **insecure about the codes of conduct**, for example, how to pose a question (speak up, raise a hand on camera, raise a virtual hand or use the chat-function), which also made them hesitant to contribute. They seemed to feel less responsible for the classroom dynamics and seemed to be even less aware than in in-person classrooms that their (lack of) participation shapes the educational setting. Even though students are passive themselves, they are annoyed with the passive attitude of others:

*Maybe we should just be childish, make it mandatory to have your camera on and point at specific people to answer and that stuff. Because I notice that it are always the same three people who participate. The rest just puts their camera and mic off and is just watching online so that they get their attendance. They're not actually participating. (Korthals Altes, 2021)*

At the same time, students found their classes and the content more 'boring' and 'more of the same' and felt less motivated for their studies. Without their regular visits to the university, also their student identity became 'thinner', and the link with the university weakened. Imaginably, this is not only an effect of the switch to (emergency) online education, but also of their entire social life standing on hold during the COVID lockdown.

*I feel way less like a student because it's not a big part of my day. I just open my laptop for a while, I go to a virtual lecture and then I close it again. Afterwards I just continue on with my life. So yeah, I do not really feel like a student compared to before Corona. (Korthals Altes, 2021)*

Although these effects of the sudden switch to fully online education seem to apply to majority students as well, the negative effects of the superficial character of social connections conceivably have an aggravated effect on students who are less familiar with the educational codes and habits, feel more as an outsider, or have lower levels of self-efficacy.

Classrooms where in-person and online presences are combined, '**hybrid classrooms**', **have their own challenges**. Students who physically participate in the classroom reap the benefits of in-person social presence, which easily reduces the students who are virtually present to second-rank students. They run the risk to be lesser-known and might get less attention or a less good view of the lecturer. The following quote illustrates these worries, which made this teacher choose for virtual participation in his hybrid classroom himself. [\* Marieke, insert quote from blog]

#### □ **Online context (opportunities)**

Despite all the challenges, our research showed that for some underrepresented students, the online setting *increased* their feelings of safety. Particularly because the social relations were superficial and the classroom was **more anonymous**, the online setting reduced the chances that they experienced exclusionary incidents. Their minority traits were less visible, and some students felt safer because they acted from their home environment. (This did not however mean that they also felt more engaged and more motivated, feeling motivated to study remained a challenge for them. (Korthals Altes, 2021)).

The downsides of online education experienced during Remote Emergency Teaching, calls for a more deliberate course design with more attention for establishing Social Presence. The

aspect of community establishment and social relations has gotten explicit attention in the field of online education. The **community of inquiry model** or Col (see Arbaugh et al., 2008; Garrison et al., 1999; 2003; Garrison & Arbaugh, 2007; Garrison & Kanuka, 2004) has been used to examine the effects of a sense of presence on learning outcomes. The Col model argues that students' senses of presence. This means that students experience trust and belonging because they know each other to some extent, they feel comfortable to actively engage and express disagreement, and that they experience acknowledgement and a sense of collaboration. Strengthening presences in online education can help to establish an online learning community.<sup>16</sup>

The online context offers **multiple opportunities for participation and co-construction**. A range of technological tools exist that invite active participation, in named or anonymized form; which include survey tools, collective brainstorm platforms, online notice boards, and instruments for peer feedback. Students can vary in their forms of contribution; ranging from text to graphs, audio and video, in synchronous or asynchronous ways. The online context also facilitates co-construction. A course manual can be a dynamic document, and a literature list can easily be made a joint collaboration.

### **What to do?**

**Create an inclusive learning climate, where every student feels safe to learn and participate, where students feel they belong as a member of the learning community and where they feel their contributions matter.**

- Monitor the learning climate and be aware of creating an inclusive learning climate (see also Guideline 1);
  - Explicitly establish ground rules for interaction (for example using a discussion board to collect input, and have students vote through a polling app).
  - Be open to discomfort and unexpected situations. Learn to be vulnerable.
  - See Hot Moments as opportunities and learn to turn them into moments of learning (see Willner Brodksy et al., 2021).<sup>17</sup>
- Reduce anonymity and explore values and assumptions (see also Guideline 2);
  - Create a sense of shared identity to build cohesion
  - Formulate assignments in such a way that students can choose what kind of information they reveal, and/or do this in small groups or dyads.
  - Set an example by sharing personal details that illustrate that diversity and vulnerability are accepted.
- Include and value diverse perspectives, worldviews, inputs from students and experts in the field (see also Guideline 3 and 4);

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<sup>16</sup> See the COI survey: <http://www.thecommunityofinquiry.org/ColSurveyDraft14b1.pdf>

<sup>17</sup> <https://assets.vu.nl/d8b6f1f5-816c-005b-1dc1-e363dd7ce9a5/9672b05a-f7d6-419e-97f4-cb562de37ac1/VU%20Mixed%20Classroom%20Hot%20Moments%20in%20Class.pdf>

- Make students co-constructors of the course (through peer-to-peer initiatives, peer feedback)
  - Explicitly ask for students' input in the course and have fixed moments of feedback on the course.
- Involve guest lecturers with expertise in a marginalized perspective you do not feel apt to lecture on.
  - Communicate with colleagues and experts on different thoughts on the topic of your course
  - Be honest to your students about your expertise and experience
  - Be considerate of what lecturers you invite to lecture in your course
- Walther and Bunz formulate six practical rules to stimulate trust and performance (Walther and Bunz 2005 in Arasaratnam-Smith & Northcote 2017: 195)
  - Participants should start communicating with each other as soon as possible in the course;
  - Participants should communicate frequently with each other.
  - Participants should explicitly acknowledge they have read/seen/heard other participants' input.
  - Participants should specify how they respond to other participants' input, as silence is difficult to interpret in an online environment.
  - Participants should set and adhere to deadlines, as building trust is harder in online than offline environments.

★ For more inspiration: The VU Mixed Classroom Educational Model strongly focuses on creating an inclusive atmosphere (Ramdas et al., 2019), as does the literature about Inclusive Excellence and Culturally Responsive Teaching (see Guideline 4). The Community of Inquiry model elaborates on Social Presence in online education, see for inspiration the COI website<sup>18</sup>

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<sup>18</sup> <https://coi.athabascau.ca/>

## References

- Ambrose, S., Lovett, M., Bridges, M., DiPietro, M., & Norman, M. (2010). *How learning works: Seven research-based principles for smart teaching* (First ed.). Jossey-Bass.
- Arasaratnam-Smith, L. A., & Northcote, M. (2017). Community in Online Higher Education: Challenges and Opportunities. *Electronic Journal of e-Learning*, 15(2), 188-198.
- Arbaugh, J.B., Cleveland-Innes, M., Diaz, S.R., Garrison, D.R., Ice, P., Richardson, J.S., & Swan, K.P. (2008). Developing a community of inquiry instrument: Testing a measure of the Community of Inquiry framework using a multi-institutional sample. *Internet and Higher Education*, 11, 133–136. doi:10.1016/j.iheduc.2008.06.003
- Baboeram, P., Meeuwisse, M., & Wolff, R. (2021). Team Teacher Reflection Manual. Ibelong. <https://ibelong.eu/wp-content/uploads/sites/5/2021/04/IBelong-TTR-final-1.pdf>
- Balboni, G., Perrucci, V., Cacciamani, S., & Zumbo, B.D. (2018). Development of a scale of Sense-of-Community in university online courses. *Distance Education*, 39, 317-333. doi:10.1080/01587919.2018.1476843
- Best, L. (2021, February 14). Masters in multitasking. *Pobrano z. seehearinclusion.com/2021/02/14/masters-in-multitasking/*.
- Biesta, G. (2020). Risking ourselves in education: qualification, socialization, and subjectification revisited. *Educational Theory*, 70(1), 89-104. doi:10.1111/edth.12411
- Biggs, J., & Tang, C. (2011). *Teaching for quality learning at university: What the student does* (4<sup>th</sup> ed.). Open University.
- Bourdieu, P. (1974) The school as a conservative force: Scholastic and cultural inequalities. In J. Eggleston (Ed.), *Contemporary Research in the Sociology of Education* (pp. 32-46). Methuen.
- Bourdieu, P. (1986) *Distinction*. Routledge.
- Burgstahler, S., & Russo-Gleicher, R. J. (2015). Applying universal design to address the needs of postsecondary students on the autism spectrum. *Journal of Postsecondary Education and Disability*, 28(2), 199-212.
- Callan, E. (2020). Education in Safe and Unsafe Spaces. *Philosophical Inquiry in Education*, 24(1), 64–78. doi:10.7202/1070555ar
- CAST (2011). Universal Design for Learning Guidelines (version 2.0). CAST. <https://wvde.state.wv.us/osp/UDL/4.%20Guidelines%202.0.pdf>
- Danowitz, M.A., & Tuitt, F. (2011) Enacting inclusivity through engaged pedagogy: A higher education perspective, equity & excellence in education, 44(1), 40-56. doi:10.1080/10665684.2011.539474
- Delahunty, J., Verenikina, I., & Jones, P. (2014) Socio-emotional connections: identity, belonging and learning in online interactions. A literature review. *Faculty of Social Sciences - Papers*. 925. <https://ro.uow.edu.au/sspapers/925>

- Domagała-Zyśk E. (2013). Using technology to teach English as a foreign language to the deaf and hard of hearing. In Vilar Beltran E., Abbott Ch., & Jones J. (eds.). *Inclusive language education and digital technology* (pp. 84-102). Multilingual Matters.
- Domagała-Zyśk E. (2018). Integral development of students with special educational needs in inclusive education from a personalistic perspective. *Paedagogia Christiana*, 2(42), 181-194. doi:10.12775/PCh.2018.023
- Domagała-Zyśk E (ed.) (2020). *Zdalne uczenie się a specjalne potrzeby edukacyjne. Z doświadczeń pandemii Covid-19*. Episteme.
- Domagała-Zyśk E. (2021). Attitudes of different age groups toward people with intellectual disability during the covid-19 pandemic. *Frontiers in Psychiatry*, 12. doi:10.3389/fpsy.2021.591707
- EASNIE (2017). *Inclusive education for learners with disabilities. Study for the PETI Committee*. Odense: European Agency for Special Needs and Inclusive Education. [https://www.europarl.europa.eu/RegData/etudes/STUD/2017/596807/IPOL\\_STU\(2017\)596807\\_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2017/596807/IPOL_STU(2017)596807_EN.pdf)
- EASNIE (2015). *Agency position on inclusive education system*. Odense: European Agency for Special Needs and Inclusive Education. <https://www.european-agency.org/about-us/who-we-are/agency-position-inclusive-education-systems>
- Edyburn, D.L. (2010). Would you recognize universal design for learning if you saw it? Ten propositions for new directions for the second decade of UDL. *Learning Disability Quarterly*, 33, 33-42. doi:10.2307/25701429
- European Commission (2016). *Communication from the commission to the European parliament, the council, the European economic and social committee and the committee of the regions*. European Commission.
- Essed, P. (1984). *Alledaags Racisme*. Van Gennep.
- Fink, L.D. (2003). *What is "significant learning"?*. Jossey-Bass. [https://www.wcu.edu/WebFiles/PDFs/facultycenter\\_SignificantLearning.pdf](https://www.wcu.edu/WebFiles/PDFs/facultycenter_SignificantLearning.pdf)
- Freeman, T. M., Anderman, L. H., & Jensen, J. M. (2007). Sense of belonging in college freshmen at the classroom and campus levels. *The Journal of Experimental Education*, 75(3), 203-220. doi:10.3200/JEXE.75.3.203-220
- Freire, P. (1996). *Pedagogy of the oppressed* (revised). Continuum.
- Garrison, D. R., & Anderson, T. (2003) *E-learning in the 21st century: A framework for research and practice*. Routledge/Falmer.
- Garrison, D.R., & Arbaugh, J.B. (2007). Researching the community of inquiry framework: Review, issues, and future directions. *Internet and Higher Education*, 10, 157–172. doi:10.1016/j.iheduc.2007.04.001
- Garrison, D.R., & Kanuka, H. (2004). Blended learning: Uncovering its transformative potential in higher education. *Internet and Higher Education*, 7, 95-105. doi:10.1016/j.iheduc.2004.02.001.
- Garrison, D.R., Anderson, T., & Archer, W. (1999). Critical inquiry in a text-based environment: Computer conferencing in higher education. *The Internet and Higher Education*, 2(2-3), 87-105. doi:10.1016/S1096-7516(00)00016-6.

- Garrison, D. R., Anderson, T., & Archer, W. (2003). 'A theory of critical inquiry in online distance education'. Z.L. Berge (ed). *Handbook of distance education*, 1(4), 113-127.
- Gay, G. (2001). Preparing for culturally responsive teaching. *Journal of Teacher Education*, 53(2), 106-117. doi:10.1177/0022487102053002003
- Gray, M. (2010). *A guide for culturally responsive Teaching in Adult Prison Educational Programs*. Xlibris Corporation.
- Grygierzec W. (2021). Lęk w edukacji zdalnej. In E. Domagała-Zyśk (ed.). *Włączmy kamerki. Z doświadczeń edukacji zdalnej w szkole i na uczelni* (pp. 153-168). Episteme.
- Harrison, L. A., Stevens, C. M., Monty, A. N., & Coakley, C. A. (2006). The consequences of stereotype threat on the academic performance of White and non-White lower income college students. *Social Psychology of Education*, 9(3), 341-357. doi:10.1007/s11218-005-5456-6
- Hodges, Ch., Moore, S., Locke, B., Trust, T., & Bond, A. (2020, March 27). The difference between emergency remote teaching and online learning. *EduCause Review*. <https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and-online-learning>
- Hoffman, M., Richmond, J., Morrow, J., & Salomone, K. (2002). Investigating "sense of belonging" in first-year college students. *Journal of College Student Retention: Research, Theory & Practice*, 4(3), 227-256. doi:10.2190/DRYC-CXQ9-JQ8V-HT4V
- Hughes, B., Huston, T., & Stein, J. (2011). Using case studies to help faculty navigate difficult classroom moments. *College Teaching*, 59(1), 7-12. doi: 10.1080/87567555.2010.489076
- Jabbar, A., & Hardaker, G. (2013). The role of culturally responsive teaching for supporting ethnic diversity in British University Business Schools. *Teaching in Higher Education*, 18(3), 272-284. doi: 10.1080/13562517.2012.725221
- Jaeger W. (2001). *Paideia. Formowanie człowieka greckiego*. Fundacja Altheia.
- Johnson, D. R., Soldner, M., Leonard, J. B., Alvarez, P., Inkelas, K. K., Rowan-Kenyon, H. T., & Longerbeam, S. D. (2007). Examining sense of belonging among first-year undergraduates from different racial/ethnic groups. *Journal of College Student Development*, 48(5), 525-542. doi:10.1353/csd.2007.0054
- Kansanen, P. (1999). Teaching as teaching-studying-learning interaction. *Scandinavian Journal of Educational Research*, 43(1), 81-89. doi:10.1080/0031383990430105
- Kaufmann, R., & Vallade, J.I. (2020). Exploring connections in the online learning environment: student perceptions of rapport, climate, and loneliness. *Interactive Learning Environments*, Ahead-of-Print, 1-15 <https://doi.org/10.1080/10494820.2020.1749670>
- Knopik T., & Domagała-Zyśk E. (2022). Predictors of The Subjective Effectiveness of Emergency Remote Teaching During The First Phase of The COVID-19 Pandemic. *International Electronic Journal of Elementary Education*, 14(4), 525-538. doi:10.26822/iejee.2022.261
- Korach P. (2020). Znaczenie wsparcia społecznego dla osób z niepełnosprawnością ruchową. *czasie pandemii*. In E. Domagała-Zyśk (ed.). *Zdalne uczenie się i nauczanie a*

- specjalne potrzeby edukacyjne. Z doświadczeń pandemii Covid-19* (pp. 42-63). Episteme.
- Korthals Altes, T. (2021). *Sense of belonging and student engagement in online classrooms*. [Unpublished Masters Thesis]. Vrije Universiteit Amsterdam.
- Krąpiec M.A. (2008). *O człowieku*. TN KUL.
- Ladson-Billings, G. (1995). Toward a theory of culturally relevant pedagogy. *American Educational Research Journal*, 32(3), 465-491. doi:10.3102/00028312032003465
- Lewandowska P. (2021). Syndrom zdalnego zmęczenia wśród nie(do)słyszających uczestników edukacji zdalnej – doświadczenia międzynarodowe. In E. Domagała-Zyśk (ed.). *Włączmy kamerki. Z doświadczeń edukacji zdalnej w szkole i na uczelni* (pp. 279-302). Episteme.
- Martin, F., Sun, T., & Westine, C. D. (2020). A systematic review of research on online teaching and learning from 2009 to 2018. *Computers and Education*, 159. <https://doi.org/10.1016/j.compedu.2020.104009>
- McGuire, R. (2021, July.) Lessons Learned: A Toolkit for Post-Pandemic Higher Education with Equity and Student Care at the Center. *Every Learner Everywhere*. <https://www.everylearnereverywhere.org/resources/>
- Marchesani, L., & Adams, M. (1992). Dynamics of diversity in the teaching-learning process: A faculty development model for analysis and action. *New Directions for Teaching and Learning*, 52(52), 9-20. doi:10.1002/tl.37219925203
- Master, A., Cheryan, S., & Meltzoff, A.N. (2016). Computing whether she belongs: Stereotypes undermine girls' interest and sense of belonging in computer science. *Journal of Educational Psychology*, 108(3), 424-437. doi:10.1037/edu0000061
- Meeuwisse, M., Severiens, S.E., & Born, M. (2010). Learning environment, interaction, sense of belonging and study success in ethnically diverse student groups. *Research in Higher Education*, 51(6), 528-545. doi:10.1007/s11162-010-9168-1
- Mengel, F. Sauer mann, J., Zölitz, U (2019). Gender Bias in Teaching Evaluations, *Journal of the European Economic Association*, 17(2): 535–566, <https://doi-org.vu-nl.idm.oclc.org/10.1093/jeea/jvx057>
- Meyer, A., & Rose, D. H. (2005). The future is in the margins: The role of technology and disability in educational reform. In D. H. Rose, A. Meyer, & C. Hitchcock (Eds.). *The universally designed classroom: Accessible curriculum and digital technologies* (pp. 13-35). Harvard Education Press.
- Meyer A., Rose D.H., & Gordon D. (2014). *Universal Design for Learning: Theory and Practice*. CAST Professional Publishing.
- Mishra, P., & Koehler, M. J. (2006). Technological pedagogical content knowledge: A framework for integrating technology in teachers' knowledge. *Teachers College Record*, 108(6), 1017–1054.
- Mitchell, K., & Martin, J. (2018). Gender Bias in Student Evaluations. *Political Science & Politics*, 51(3), 648-652. doi:10.1017/S104909651800001X

- Morong G., & DesBiens, D. (2016) Culturally responsive online design: Learning at intercultural intersections. *Intercultural Education*, 27(5), 474-492. doi: 10.1080/14675986.2016.1240901
- Nieto, S. (1999). *The light in their eyes: Creating multicultural learning communities*. Trentham Books.
- Nieto, S. (2000). *Affirming diversity: The sociopolitical context of multicultural education*. Longman.
- O'Shea, S., Lysaght, P., Roberts, J., & Harwood, V. (2016). Shifting the blame in higher education - social inclusion and deficit discourses. *Higher Education Research and Development*, 35(2), 322-336. doi:10.1080/07294360.2015.1087388
- Owens, J., & Massey, D. (2011). Stereotype threat and college academic performance: A latent variables approach. *Social Science Research*, 40(1), 150–166. doi: 10.1016/j.ssresearch.2010.09.010
- Pacansky-Brock, M., Smedshammer, M., & Vincent-Layton, K. (2019). *Humanizing online teaching to equitize higher education*. *Current Issues in Higher Education*, 21(2).
- Peacock, S., Cowan, J., Irvine, L., & Williams, J. (2020). An exploration into the importance of a sense of belonging for online learners. *The International Review of Research in Open and Distributed Learning*, 21(2), 18–35. doi:10.19173/irrodl.v20i5.4539
- Pilotti, M., Anderson, S., Hardy, P., & Murphy, P. (2017). Factors related to cognitive, emotional, and behavioral engagement in the online asynchronous classroom. *International Journal of Teaching and Learning in Higher Education*, 29(1), 145–153. <http://www.isetl.org/ijtlhe/>
- Ramdas, S., Slootman, M., & van Oudenhoven-van der Zee, K. (2019). *The VU mixed classroom educational model*. Vrije Universiteit Amsterdam. [https://research.vu.nl/ws/portalfiles/portal/95377215/Ramdas\\_Slootman\\_Oudenhoven\\_vd\\_Zee\\_2019\\_Mixed\\_Classroom.pdf](https://research.vu.nl/ws/portalfiles/portal/95377215/Ramdas_Slootman_Oudenhoven_vd_Zee_2019_Mixed_Classroom.pdf)
- Ramdas, S., Das, A., Slootman, M. (2022). *The VU mixed classroom educational model in blended learning*. Vrije Universiteit Amsterdam. To download from: <https://vu.nl/en/about-vu/more-about/mixed-classroom>.
- Ramos-Sánchez, L., & Nichols, L. (2007). Self-efficacy of first-generation college students and the relationship to academic performance and college adjustment: The relationship with academic performance and college adjustment. *Journal of College Counseling*, 10(1), 6–18. doi: 10.1002/j.2161-1882.2007.tb00002
- Rose, D. H., & Meyer, A. (2002). *Teaching every student in the digital age: Universal Design for Learning*. ASCD.
- Rose, D. H., & Meyer, A. (2006). *A practical reader in Universal Design for Learning*. Harvard Education Press.
- Rodríguez-Ardura, I., & Meseguer-Artola, A. (2016). E-learning continuance: The impact of interactivity and the mediating role of imagery, presence and flow. *Information & Management*, 53(4), 504-516. doi:10.1016/j.im.2015.11.005
- Sabry, S.N., and Bruna K.R. (2007). Learning from the experience of Muslim students in American schools: Towards a proactive model of school-community cooperation. *multicultural perspectives*, 9(3), 44-50. doi:10.1080/15210960701443730

- Salazar M.C., Norton A.S., Tuitt F.A. (2010). Weaving promising practices for inclusive excellence into the higher education classroom. *To improve the Academy*, 28(1), 208-226. doi:10.1002/j.2334-4822.2010.tb00604.x
- Sánchez-Gelabert, A. (2020). Non-traditional students, university trajectories, and higher education institutions: A comparative analysis of face-to-face and online universities. *Studia Paedagogica*, 25(4), 51-72. doi:10.5817/SP2020-4-3
- Skoczyńska M. (2021). Cisza w eterze. Studenci z uszkodzeniem słuchu wobec nauczania zdalnego. In E. Domagała-Zyśk (ed.). *Włączmy kamerki. Z doświadczeń edukacji zdalnej w szkole i na uczelni* (pp. 261-278). Episteme.
- Slootman, M. (2020). *Diversiteit en ongelijkheid in het VU onderwijs in de context van Corona*. Amsterdam: Vrije Universiteit Amsterdam (policy document)
- Spencer, B., & Castano, E. (2007). Social class is dead. Long live social class! Stereotype threat among low socioeconomic status individuals. *Social Justice Research*, 20(4), 418–432. doi:10.1007/s11211-007-0047-7
- Spencer, S. J., Logel, C., & Davies, P. G. (2016). Stereotype threat. *Annual Review of Psychology*, 67(1), 415–437. doi:10.1146/annurev-psych-073115-103235
- Spencer, S. J., Steele, C. M., & Quinn, D. M. (1999). Stereotype threat and women’s math performance. *Journal of Experimental Social Psychology*, 35(1), 4–28. doi:10.1006/jesp.1998.1373
- Steele, C., & Aronson, J. (1995). Stereotype threat and the intellectual test performance of African Americans. *Journal of Personality and Social Psychology*, 69(5), 797-811. doi:10.1037/0022-3514.69.5.797
- Stout, R., Archie, C., Cross, D., & Carman, C.A. (2018). The relationship between faculty diversity and graduation rates in higher education. *Intercultural Education*, 29(3), 399-417. doi:10.1080/14675986.2018.1437997
- Sue, D.W. (2010). *Microaggressions in everyday life: Race, gender, and sexual orientation*. John Wiley & Sons.
- Thomas, L. (2002). Student retention in higher education: The role of institutional habitus. *Journal of Education Policy*, 17(4), 423-442. doi:10.1080/02680930210140257
- Tinto, V. (1993), *Leaving College: Rethinking the Causes and Cures of Student Attrition*, 2nd ed., Chicago, IL: University of Chicago Press.
- Tuitt, F., Haynes, C., & Stewart, S. (2018). Transforming the classroom at traditionally white institutions to make Black Lives Matter. *To improve the academy*, 37, 63–76. doi:10.1002/tia2.20071
- UNESCO (2009). Policy guidelines on inclusion in education. *UN Educational, Scientific and Cultural Organisation*. <https://unesdoc.unesco.org/ark:/48223/pf0000177849>
- UNESCO (2003). Overcoming exclusion through inclusive approaches in education. A challenge and a vision; Conceptual paper. *UN Educational, Scientific and Cultural Organization*. <https://unesdoc.unesco.org/ark:/48223/pf0000134785>
- UNESCO (2008). Inclusive education: the way of the future; Reference document. *UN Educational, Scientific and Cultural Organisation*. <https://unesdoc.unesco.org/ark:/48223/pf0000162787>

- Villegas, A.M., & Lucas, T. (2002). Preparing culturally responsive teachers: Rethinking the curriculum. *Journal of Teacher Education*, 53(20), 20-32.  
doi:10.1177/0022487102053001003
- Walther, J. B., Bunz, U. (2005). The rules of virtual groups: Trust, liking, and performance in computer-mediated communication. *Journal of Communication*, 55(4), 828-846.
- Wekker, G., Slootman, M. W., Icaza, R., Jansen, H., & Vazquez, R. (2016). Let's do diversity. Report of the University of Amsterdam Diversity Commission. Amsterdam: University of Amsterdam.
- Willner Brodsky, N., Slootman, M., Das, A., & Ramdas, S. (2021) *Hot moments in class*. Vrije Universiteit Amsterdam. <https://assets.vu.nl/d8b6f1f5-816c-005b-1dc1-e363dd7ce9a5/9672b05a-f7d6-419e-97f4-cb562de37ac1/VU%20Mixed%20Classroom%20Hot%20Moments%20in%20Class.pdf>
- Van der Zee, K., & Van Oudenhoven, J. (2013). Culture shock or challenge? The role of personality as a determinant of intercultural competence. *Journal of Cross-Cultural Psychology*, 44(6), 928–940. doi:10.1177/0022022113493138
- Zumbrunn, S., McKim, C., Buhs, E., & Hawley, L. R. (2014). Support, belonging, motivation, and engagement in the college classroom: A mixed method study. *Instructional Science*, 42, 661-684. doi:10.1007/s11251-014-9310-0

# Appendix A. The VU Mixed Classroom Educational Model

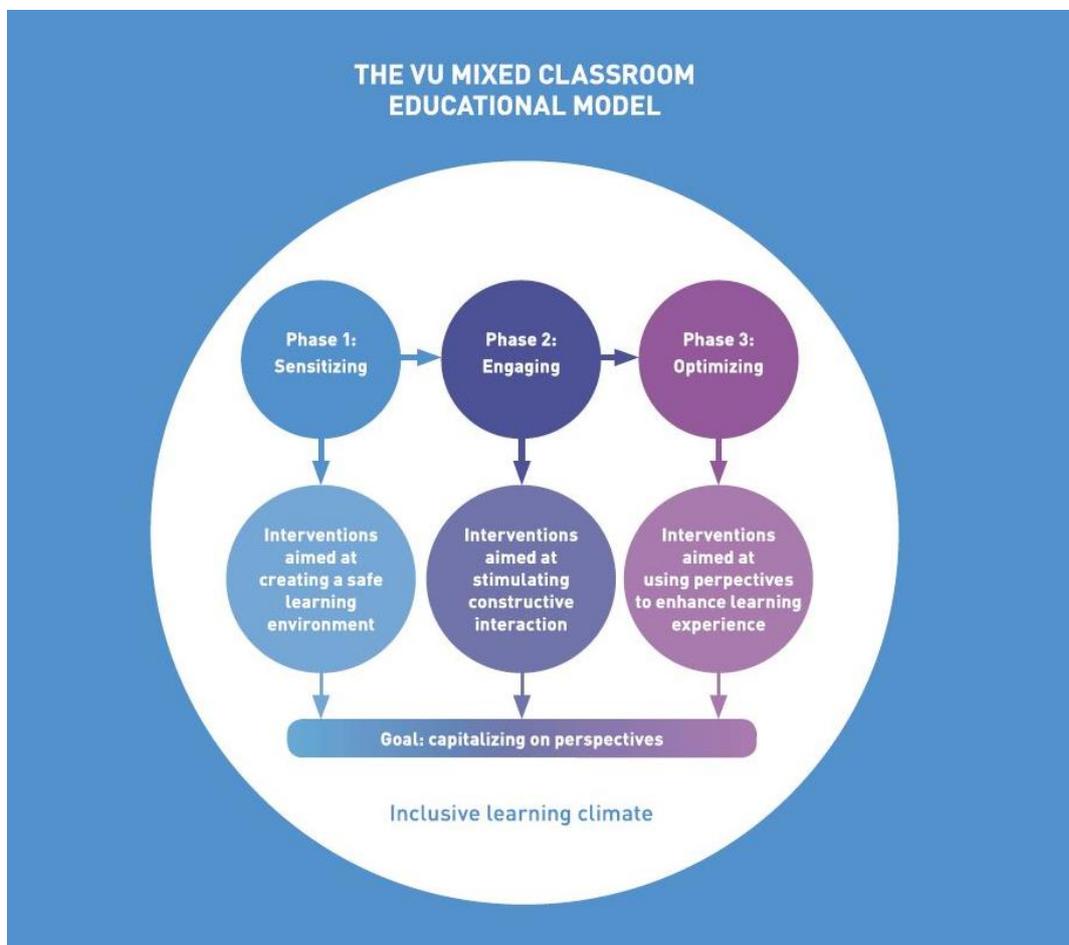
See below a schematic overview of the VU Mixed Classroom Educational Model and a table with the learning goals, strategies and examples of learning strategies per phase.

Source: Ramdas, S., Sloodman, M., & van Oudenhoven-van der Zee, K. (2019). The VU Mixed Classroom Educational Model. Amsterdam: Vrije Universiteit Amsterdam.

See more information about the VU Mixed Classroom Model: <https://vu.nl/en/about-vu/more-about/mixed-classroom>

**Figure A1. The VU Mixed Classroom Educational Model**

(Source: Ramdas ea 2019: 8)



**Figure A2. Learning goals, strategies and examples of learning strategies per phase**  
(Source: Ramdas ea 2019: 40)

Phase	Learning goals	Strategies	Learning activities
<b>1. Sensitizing</b>	<ul style="list-style-type: none"> <li>• Students are able to reflect on their own frame of reference, and demonstrate awareness of their own perspective being not necessarily a universal perspective;</li> <li>• Students are aware of, and can articulate the importance of "openness" towards other perspectives and approaches;</li> <li>• Students know what a safe learning environment entails and how they can contribute to it.</li> </ul>	<ul style="list-style-type: none"> <li>• Reduce anonymity</li> <li>• Explore values and assumptions</li> <li>• Establish ground rules for interaction and discussion</li> <li>• Monitoring learning climate</li> <li>• Induction of identities</li> </ul>	<ul style="list-style-type: none"> <li>• What shaped you?</li> <li>• Card system</li> <li>• Circle of trust</li> <li>• Exit slips</li> <li>• Personality tree/rose</li> <li>• Tiles</li> <li>• Fifty seconds</li> <li>• Buddy system</li> <li>• Getting to know you</li> <li>• Contract</li> <li>• Dotmocracy</li> <li>• From judgement to question</li> <li>• Three-step-interview</li> </ul>
<b>2. Engaging</b>	<ul style="list-style-type: none"> <li>• Students recognize and are willing to explore perspectives and approaches that differ from their own;</li> <li>• Students are able to interact with these perspectives in a constructive way;</li> <li>• Students recognize unease and tension when they arise in interactions, and have practiced dealing with them.</li> </ul>	<ul style="list-style-type: none"> <li>• Structuring interaction with other perspectives</li> <li>• Creating "in between" spaces for interaction</li> <li>• Dispelling the illusion of explanatory depth</li> <li>• Integrative conflict management</li> <li>• Reinforcing ground rules for interaction and discussion/monitoring learning climate</li> </ul>	<ul style="list-style-type: none"> <li>• Speech writing/letter writing</li> <li>• Affective response</li> <li>• Devil's advocate</li> <li>• Buzz duo's</li> <li>• Predict, Observe, Explain</li> <li>• Pro/Con grids</li> <li>• Speed date</li> <li>• Questions only/Quescussion</li> <li>• Idea line up</li> <li>• Debate</li> <li>• Rotating Chair</li> </ul>
<b>3. Optimizing</b>	<ul style="list-style-type: none"> <li>• Students actively seek and consider perspectives and approaches different to their own;</li> <li>• Students are able to switch between these perspectives and approaches;</li> <li>• Students are able to integrate and combine perspectives when analyzing problems or cases;</li> <li>• Students can demonstrate combining different perspectives to formulate creative solutions, both on individual and group level.</li> </ul>	<ul style="list-style-type: none"> <li>• Combining perspectives in a structured way</li> <li>• Switching between perspectives to stimulate cognitive flexibility</li> <li>• Reflecting on learning process</li> <li>• Rewarding students for capitalizing on perspectives</li> </ul>	<ul style="list-style-type: none"> <li>• One-minute-paper</li> <li>• Big paper</li> <li>• Think aloud</li> <li>• Jig Saw/Expert exercise</li> <li>• Student-led sessions</li> <li>• Chain notes</li> <li>• Solving the problem</li> <li>• Index card pass</li> <li>• Tag team discussion</li> <li>• World Café exercise</li> </ul>



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