

# BEWISE for an attractive and inclusive learning environment at ITU

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## Steady focus on a thriving learning environment







The ITU Strategy 2022-2025 states that an attractive and inclusive study and work environment is a prerequisite for students and staff to thrive and excel together. Faculty members play a central role and constitute the core asset of ITU. They facilitate research-based teaching and learning activities, but to meet the strategic goals of ITU, ensure high quality we have also listened to students.

To sustain a thriving study environment, we must consider several factors and convert intentions into mindsets and actions. **BEWISE** is a thematic frame of reference for sparking conversations between teachers, students, staff, and management about what an inclusive and thriving study environment is or could be. It categorizes six strategic drivers that are relatable and easy to recall helping us reflect on values and guide our behavior across ITU.



Visibility of our communication and actions enables documentation of our practices, for example, we contribute to a good study environment when we do A, B and C. But it can also lead to identification of other desired practices, e.g., we want to strengthen student feedback, so we will do X, Y, Z.

Thus, **BEWISE** helps us identify and define the many good practices that already exist at ITU and frame discussions on what we will do wiser in the future.

BALANCED LEARNING 	EMPOWERMENT 	WELLBEING 	INCLUSION 	SUPPORT 	ENGAGEMENT 
We give students the best learning experiences based on our didactical and pedagogical principles. Student-driven and teacher-driven learning activities on campus and online are proportioned to ensure high learning outcome.	We prepare students for future careers by strengthening their capabilities and resilience to manage their own learning journeys. We appreciate student voice and autonomy that positively influence the ITU environment.	We care for students' overall mental and physical health and strength to function well academically and personally. ITU embed wellbeing in the daily decision-making to ensure that we all thrive while being at ITU.	We encourage diverse, respectful, and tolerant behavior towards other fellow beings. A diverse student pool adds to an inspiring learning environment. Inclusion is reflected in interaction at all levels. Students learn and grow in ways that accommodate their needs, interests, and tempos.	We operate at different stages and processes to understand the academic, social, mental, emotional, and physical needs of faculty and students. This approach creates a responsive learning environment.	We offer challenging and life-relevant learning to boost students' inner motivation and optimal state of functioning and learning (flow). Social engagement in lectures, group work, lab activities is central to learning.
I enjoy the variety of teaching formats and learning spaces for discussions and exercises with my peers, TAs, and teachers at Campus.	I develop personally and feel able to navigate my study at ITU successfully. I can make a difference to myself and to others.	I thrive and feel comfortable being a student. I can follow the pace and demands of the courses and am often in flow.	I have friends and good relationships with peers, lecturers and staff. I feel embraced and accepted for who I am.	ITU understands student life. Faculty and staff reach out to offer their help when they can and is responsive to my needs and requests.	I feel engaged in social and educational activities and am passionate about my study.

## Balanced Learning

The central driver of a thriving learning environment is balanced learning. ITU faculty is continuously making a huge effort to conduct teaching that aligns with formal requirements and students' learning needs and skills. Part of this process is to decide what is the appropriate teaching style. Another part is finding the right proportions of online and onsite learning for getting the best teaching quality that meets the students' learning needs.

Balancing online and onsite activities with student-driven and teacher-driven teaching styles basically rely on faculty's didactical and pedagogical reflections on how they interact with their students. We call that *balanced learning*. It refers to a well-considered design that ensure appropriate workloads, high engagement and learning quality, *not* an even distribution of onsite and online learning or teaching styles. All teaching situations are unique which encourages the ITU community to continuously explore ways of teaching, working, and learning that ensures wellbeing and academic performance for both faculty and students.

The framework below can be used to identify and vary teaching styles, depending on the learning design and the skills of the students. It shows four types of teacher-student interaction and their varying forms, roles, values, and logics. The left hemisphere is mainly teacher-facilitated learning, whereas the right hemisphere brings more student autonomy and practice-based learning outcomes. It can be used to help faculty document to students what research-based teaching and learning 'the ITU way' is as well as substantiate the methods of high-quality teaching at ITU. We illustrate the variety of research-based learning styles and their different levels of teacher-student engagement:

"Teaching to learner" is a teacher-driven approach that can boost academic knowledge. Presentation of research papers helps students *develop awareness* of certain research areas. Case studies help students *remember* and *understand* the application of different theories. Teachers can also present their

own research base or research group in the course and discuss the possibilities and difficulties for their fields of interest.

The “teaching from learner” approach has *relating* students to research as a learning outcome. It means that the teacher is focused on how teaching can meet the unique learning needs and interests of the students by relating research to students’ reality. This approach increases understanding as well as research interest. Considering what are the consequences of taking a particular position of observation can also spark reflective perspective-taking. This style helps students acquire philosophy of science skills to define a precise research question, data processing and probing during a research process.

The “teaching with learner” approach organizes teaching as research collaboration to help students internalize and practice research methods. This type of involvement leads to methodological mastery. The teacher reflects on what scientific and systematic work processes (design, data, analysis, assessment) to help the students learn *with* them, like TAs do in the labs. The teacher can also invite students to participate in a small-scale study or publishing focus on the joint acquisition of new knowledge. To evaluate the learning outcome in collaboration, teachers must reflect on their role as teachers as well as learners.

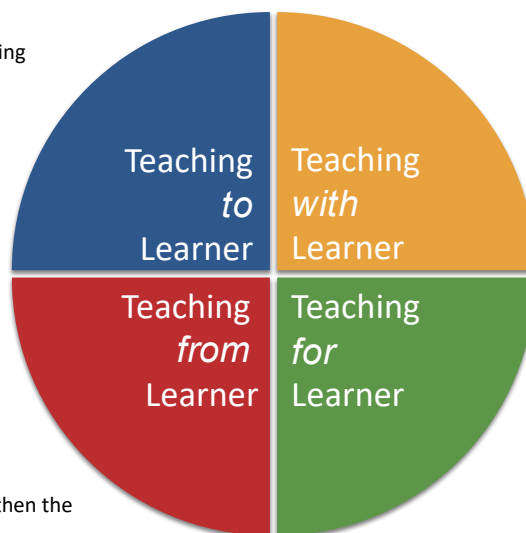
“Teaching for learner” is a student-driven approach engaging the student in a way that can truly evoke the desire for becoming a researcher. Here, the learning outcome is to *create*, so the teacher considers how to empower the student to run their own study. The labs are obvious settings for such activities. Propose projects that students can sign up for and conduct in collaboration with industry and other ITU students, TAs and / or researchers.

**“Promote & Sell” teaching style**

**Format:** lectures & talks  
**Teacher role:** active instructor pouring knowledge  
**Learner role:** passive listener  
**Value:** attention  
**Logic:** teaching as a transaction

**“Connect & Collaborate” teaching style**

**Format:** group & project work  
**Teacher role:** inclusive. Co-creating knowledge  
**Learner role:** idea generating  
**Value:** knowledge generation and innovation  
**Logic:** teaching as creative and innovative processes.



**“Listen & Learn” teaching style**

**Format:** Q & A, class dialogs  
**Teacher role:** probing and retrieving knowledge  
**Learner role:** actively reflecting  
**Value:** contextual understanding  
**Logic:** teaching as reflection. Strengthen the teacher-student relationship

**“Empower & Engage teaching style”**

**Format:** action learning. Teaching as self-engagement processes  
**Teacher role:** empowering the student  
**Learner role:** engaging in learning processes  
**Value:** responsibility & societal impact  
**Logic:** Enacting knowledge. Communal - “make a difference”.

**The teaching interaction framework<sup>1</sup>**

<sup>1</sup> Developed from Rydén, Ringberg, & Wilke, (2015) and Rydén, Ringberg, and Jacobsen (2017).

## Principles and values for using new technology in teaching

*New technology* refers to access to hardware and software in the physical classrooms and to software in the online environment. The principles are supported by infrastructure for decision-making processes and operations.

1. *Educational quality* governs the choice of technologies, not the other way around:
  - 1.a: Choice of technology is based on the acknowledgement that technology is not neutral and must strengthen the learning process rather than weaken it. In particular, Generative AI may compromise quality. Learning setups and exams using technologies must be designed in ways that systematically promote deeper learning. ITU only accepts technology-aided teaching methods compliant with the ITU's quality principles,
  - 1.b: Technology implementation must be flexible across educations to meet the very different didactic needs. The needs of one education or course must not be met at the expense of the other.
2. *Alignment*: the technology of the digital learning space and the technology of the physical learning space must support each other.
3. *Support*: We offer technical support and pedagogical advice for teachers who use new technology in teaching.
4. *Standardization*: Equipment in the physical teaching rooms should be identical, of proper quality, and easy to use to make the teachers feel safe and able to streamline their preparation
5. *Learning*: Constantly experimenting with balanced forms of learning and staying curious about the use of new technology is encouraged, provided that principle #1a is followed.
  - 5a: new technologies are an inherent part our learning environment and teaching practices. We must therefore learn the pitfalls and strengths of new technologies well and equip our students with the skills necessary for mastering in their future role as IT specialists and generalists.
6. *Mandate*: The course manager and teacher may reject students who either a) wish to use technology to participate online in the on-site teaching if this compromises the collective learning experience or b) use technologies in ways that compromises the individual learning experience or can be considered as fraud.

## Empowerment

An important purpose of education is to develop independent students and empower them for the labor market. The employability of ITU students is high, which indicates that ITU is doing this well. Industry collaborations and lab activities are teaching elements that turn students into practitioners. We empower students by providing learning experiences that gradually increases their capabilities to manage their own learning journeys and life at and after ITU. Student voice (influence on their study environment) and self-actualization needs are discovered and nurtured by letting the students play a more shaping role in learning activities and letting them test the learning value in real-life settings<sup>2</sup>.

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<sup>2</sup> Supported by the Montessori Education method developed by Maria Montessori.

## Wellbeing

Promoting academic progress through wellbeing refers to a state of overall mental and physical health and strength to function well academically, socially, and personally. It forms a valid part of the ITU quality assurance because it is the foundation of students' learning performance and of healthy relationships between fellow students, teachers, and staff. Wellbeing is considered when we review exam and evaluation methods and design courses considering the workload of students and teachers. Faculty and staff help students proactively manage stress, negative events, and mental challenges and keep focus on their studies while motivating themselves. Alignment of expectations increases understanding of the students' realities and life aspirations which affects faculty and student performance positively.

## Inclusion

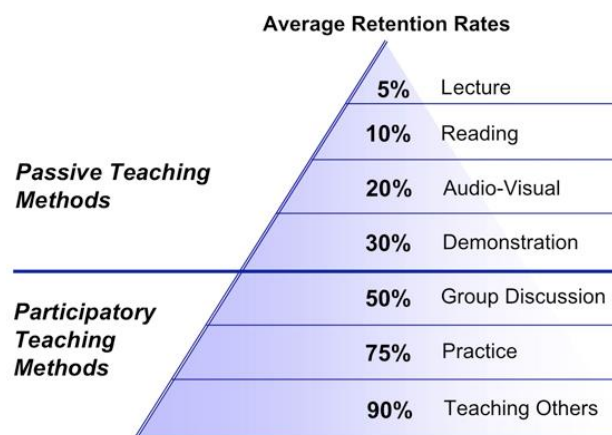
A diverse student pool at ITU contributes to an inspiring learning environment and a higher learning quality. Our community culture is therefore encouraging diverse, respectful, and tolerant behavior towards all fellow beings. Inclusion can be sensed in empathy and awareness of how our behavior affect other people in study-related activities as well as non-study related social events (at Analog, the canteen, during breaks or Scroll bar, etc.), which strengthen student relationships and the ITU community.

## Support

Feeling supported by teachers, fellow students, and staff eases the learning journey. As members of the ITU community we should be helpful to others whenever possible and not be afraid to reach out to others if we think we can help. Our supportive functions like Student Affairs and Programmes (SAP), Facility Management (FM) and the IT Department operate at different stages and processes to meet the academic, social, and physical needs of faculty and students. They continuously strive to better understand the diverse student community and study journeys to provide good administrative flexibility and support. Most students are very satisfied with the support at ITU, but we adapt support practices regularly to accommodate student needs and technology developments which adds to a thriving learning environment.

## Engagement

Important to a thriving learning environment is student engagement as it shapes identity and fulfills esteem and self-actualization needs. Flow<sup>3</sup> defines engagement as the optimal state of functioning and learning. An engaging experience occurs when students interact with the people, technology, or other materials in such a way that their concentration is focused on the task at hand, leaving little or no attention to think about irrelevant issues, and that the sense of time is distorted while completing the task. Seeking flow also induces a growth principle: students develop and fulfill their potential by continuously extending themselves beyond their perceived ability and being compelled to repeat this experience enabling continuous growth. Participatory teaching formats such as lab activities, hands-on exercises, projects or being a Teaching Assistant motivate students and increase their knowledge retention as the figure below illustrates.



\*Adapted from National Training Laboratories. Bethel, Maine

## BEWISE IN ACTION

**BEWISE** is for the entire ITU community: faculty, students, staff, and management. The study environment at ITU is so dynamic that we should keep asking ourselves if what we do is creating the intended value to our learning environment. We have examples of past solutions become present pain points. We therefore believe that awareness of the values that guide our decisions and actions and their effects on others can have a tremendous impact on the environment and culture at ITU.

From this setoff, we can propose, prioritize, and carry out relevant **BEWISE** initiatives and actions. *On the longer-term*, we will develop and apply more adequate methods for measuring how student wellbeing and performance resonate.

Pernille Rydén

Dean of Education

<sup>3</sup> Csikszentmihalyi, M. (2008). *Flow: The Psychology of Optimal Experience*. New York, NY: Harper Perennial.