



CHARM-EU (CHALLENGE-DRIVEN, ACCESSIBLE, RESEARCH-BASED AND MOBILE EUROPEAN UNIVERSITY)

Project Acronym	CHARM-EU
Grant Agreement	101017229
Project Title	CHARM-EU (Challenge-driven, Accessible, Research-Based and Mobile European University)
Coordinator	University of Barcelona
Consortium	University of Barcelona
	Trinity College Dublin
	Utrecht University
	Eötvös Loránd University Budapest
	University of Montpellier
Website	https://www.charm-eu.eu

DELIVERABLE D4.6- CHARM-EU: ASSESSMENT TECHNIQUES AND CRITERIA RESOURCES

Deliverable	D4.6	
Title of Deliverable	Assessment Techniques and Criteria Resources	
Work Package	WP4	
Leading institution	UU	
Work Package Leader	Jan Haarhuis and Sanne Van Vugt (Utrecht University)	
Dissemination Level	Public (PU)	
License	CC BY	
Document Version	V6 (FINAL)	
Due Date	June 2021	
Submission Date	01/06/2021	
Authors (Main Beneficiary)	Jan Haarhuis and Sanne Van Vugt (Utrecht University) Lubberta de Jong (Utrecht University) (Lead WP4.6), Silvia Gallagher (Trinity College Dublin) (Co-lead WP4.6)	
Other Contributors	Lubberta de Jong (Utrecht University), Patricia Cucchi (University of Montpellier), Maria Hercz (Eötvös Loránd University), Gloria Rubert Adelantado (University of Barcelona) Silvia Gallagher (Trinity College Dublin), Harold Bok (Utrecht University), Melvin van Puffelen (Utrecht University)	

CHARM-EU





DOCUMENT HISTORY

Date	Revision No	Prepared By	Description
09/10/2020	V1	Sanne van Vugt	First draft
26/01/2021	V2	Lubberta de Jong	Revised second draft
05/02/2021	V2.1	Lubberta de Jong,	Completing second draft.
		Patricia Cucchi, Sanne	Feedback provided by: Silvia Gallagher,
		van Vugt	Harold Bok, Mária Hercz and Gloria Rubert
19/2/2021	V3	Lubberta de Jong	Revising second draft. Feedback provided by: Silvia Gallagher, Sanne van Vugt, Gloria Rubert, Mária Hercz, Jake Byrne
			Illustrations: Sanne van Vugt & Vanessa Vigano
9/3/2021	V4	Lubberta de Jong	Final











CHARM-EU



CHallenge-driven Accessible Research-based Mobile European University

CHARM-EU

Assessment

Handbook













Rationale What is this Handbook for?

Aim of the Assessment Handbook

This resource contains information and pedagogical guidance to help you understand the CHARM-EU approach to assessment design. It describes the practical guidelines for implementing CHARM-EU's unique approach to assessment. This information supports the successful implementation of assessment and explains how this influences teaching and learning practices. This resource is for all CHARM-EU stakeholders that are interested or involved in assessment. It can be used by teaching & learning (T&L) professionals to design assessment practices and assess students at Module level.

How to use the Assessment Handbook?

This Handbook can be used as a practical tool for T&L professionals that seek information to design and implement assessment within their CHARM-EU Module. It can be used as a reference guide. Chapters can be read separately from each other. If you would like to read some more theory and background information about CHARM-EU assessment, we recommend reviewing the Assessment Master Document.

CHARM-EU's assessment programme

In CHARM-EU a unique and holistic approach to assessment is an essential part of the student's learning experience. Underpinned with scientific evidence an assessment programme was created, fit for purpose. This section will further outline the key features of the CHARM-EU assessment programme. Before you start reading the following sections, it's good to realize that since we wanted to create a coherent programme of assessment you will probably notice throughout this document that the focus will lie on the assessment programme as a whole rather than on Module level only.

What are the key features of our assessment programme?

In the CHARM-EU assessment programme the student's development over a longer period of time together with a focus on learning and encouraging students to set their own learning goals is key.

Module assessments

This will be done by providing students with multiple Module assessments over time. These Module assessments do not lead to a pass/fail decision in itself, but provide meaningful feedback to the student. So instead of learning for the test, students are encouraged to develop themselves. This means that a student will not be 'punished' for underperforming on a Module assessment, but rather feels encouraged to work on his or her competency gap and show later on that he or she managed to fill the competency gap. This also means that we give students time to improve and reflect on Module assessments and create follow-up opportunities for them.

Mentor advice

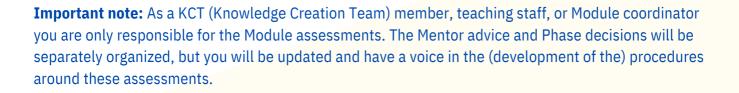
To check how the student is doing and to make sure that the student stays on track, a mentor provides an advice. In doing so, the mentor goes through the feedback the student receives during the Module assessments and how the student enacted on this (functioning as a 'flagging system'). In addition, the mentor coaches the student's learning journey. 'So instead of learning for the test, students are encouraged to develop themselves'





Phase decisions

Progress decisions, i.e., going to the next Phase or receiving the Master's degree, will only be made after each Phase (Phase decision). This will be done by a group of examiners, known as the Portfolio Assessment Committee (see section 'Putting it all together').



PHASE DECISION

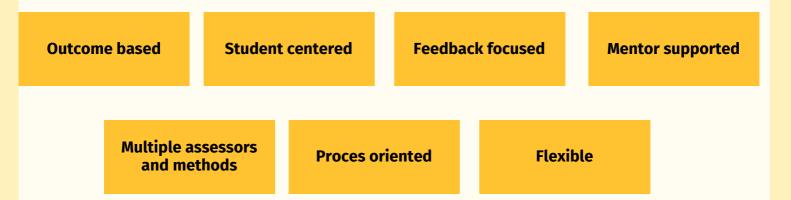
Are you interested in learning more about the theoretical background of the assessment programme? This <u>video</u> provides a clear overview. If you are interested around the scientific background of our programme we would recommend reading the following publications:

- Van Der Vleuten, C. P., Schuwirth, L. W. T., Driessen, E. W., Govaerts, M. J. B., & Heeneman, S. (2015). Twelve tips for programmatic assessment. Medical teacher, 37(7), 641-646.
- Wilkinson, T. J., & Tweed, M. J. (2018). Deconstructing programmatic assessment. Advances in medical education and practice, 9, 191.

'When we closely address them [the assessment principles], it turns out that having a summative (pass/fail exam after each Module doesn't align with the assessment princples'

But why...?

So, you might be thinking: 'this sounds very fancy and all, but also is very complicated and new, why are we going to design our assessment like this?'. Well, in our new Master's programme we have designed Educational Principles as a foundation of our programme (see Appendix 1). This led to 7 assessment principles, namely (see figure below): 1) outcome-based, 2) student-centred, 3) feedback focused, 4) mentor supported, 5) multiple assessors and methods applied, 6) process-oriented, and 7) flexible. Appendix 2 provides an overview of the alignment of the Education Principles with the Assessment principles. When we closely address them, it turns out that having a summative (pass/fail) exam after each Module doesn't align with the assessment principles. Therefore, we started looking for other approaches which better align our assessment principles, resulting in our current assessment program. For more information on the (scientific) considerations please watch our <u>CHARM EU</u> <u>Masterclass on assessment</u>.



So how does our unique and innovative CHARM-EU assessment journey look like? On the next page you will find a illustration of the Student's assessment journey.

CHARM EU

Student assessment journey





M1



Student-mentor match

A student begins the programme by attending introduction events where they are matched with a mentor

Learning activity

Student follows the Modules within the Phase





Student-mentor meetings

During the Phase a regular studentmentor meeting is scheduled on student's initiative. The mentor helps the student to reflect and assesses and directs the student's progress.









100 A

M1 M3

M2



Various Module assessments are provided to the student, these could include essays, pitches, and teamwork.



Feedback on assessments

Teachers provide meaningful feedback to students **in the e-portfolio** after each Module assessment.

Phase level decision

At the end of the Preparatory Phase a Phase level (pass/fail) decision will be made. This is done by the Portfolio Assessment Committee who will examine the student's e-portfolio.





TO NEXT PHASE

FINISH

Roles and responsibilities

Before outlining how to design your Module assessment it's good to have an idea about the different roles involved in the assessment programme. Remember that the student is in the centre of the process (student-centred), and the Module assessor fosters and aids the student's learning process by providing meaningful feedback. These roles are very likely different for both students and teachers compared with what they are used to. **Tip for Module coordinators**: highlight the roles and responsibilities to your students and teaching staff. You are an important ambassador for our CHARM EU vision!

Students

- Sets learning goals in order to progress and further develop itself
- Proactively seeks for gaps in the PLO domains
- Provides evidence for attainment of the appropriate level in the PLO domains

Module assessor

- Makes judgements about Module assessments (e.g., interviewing a student, grading a presentation or reviewing a student essay).
- In judging the Module assessment they focus on providing meaningful feedback to the student in order to help the student to develop itself.
- Can be a teacher, peer, other relevant stakeholders, and the student itself (self-assessment)
- **Tip**: Teachers or other stakeholders who are tutors (i.e., a person who is a content expert helping the student in for example a challenge) can be a very valuable Module assessor. Please note that a tutor and mentor are different roles. For a further explanation on the tutor role we would like to refer you to the Teaching & Learning handbook.
- Please note that a Module assessor not an examiner. So a Module assessor is not responsible for providing grades associated with credit points, this is the role of the Phase examiner.

Module coordinator

- Communicates with students (first contact for students about a Module) about Module content, organizational issues and questions
- Designs the Module assessments (with a team) and holds responsibility on the quality of the Module assessments.
- Is an important representative for the CHARM EU assessment vision (e.g., by supporting Module assessors in their new role)

Mentor

- Guides a student throughout the whole Master's programme
- Guides and coaches students in their learning journey through student-mentor meetings
- Assists students in formulating learning goals, documented in the e-portfolio
- Monitors progress in relation to PLO domains and provides a Mentor advice based on its impressions.
- Contacts the Portfolio Assessment Committee if needed (e.g., student has performance concerns)



- Participates as a member of the Portfolio Assessment Committee
- Gives Phase decisions resulting in a mark on a 0-100% scale (this is a pass/fail decision)
- Reviews all Module assessments within the e-portfolio after the completion of each Phase. Note: the phase examiner does not redo the Module assessment, this has been done by the Module assessor. The Phase examiner reviews the comments of the Module assessor.











Designing your Module assessments

Then the most significant question you probably want to have answered right now is: 'How can I build in the key features of the assessment programme into my Module assessments?'. In this section we will provide you with a step-by-step guide to design your Module assessment together with a checklist. Before we start with the step-by-step it's important to understand the pillars of the (assessment) programme.

How Programme Learning Outcomes are connected to Module Learning Outcomes

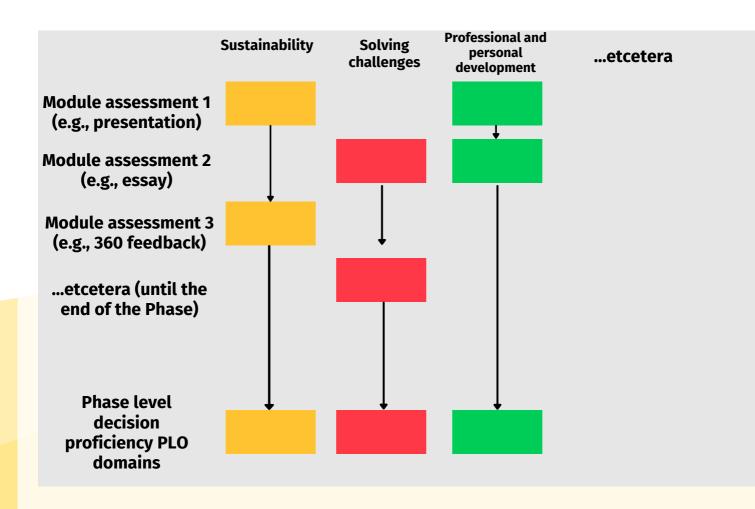
In explaining the pillars of the (assessment) programme we would like to start with the Programme Learning Outcomes (PLOs). The PLOs describes the profile of a CHARM EU graduate. At the end of the programme we want that each student fulfils these outcomes. The PLOs are outlined below.

PLO 1	Critically analyse and evaluate the concept of sustainability as it is constructed and represented within multiple disciplines and by extra-academic actors. Reflect upon these to understand the relevant ethical issues and the role of active citizenship, in particular within a European context.
PLO 2	In collaboration with extra-academic actors, investigate and evaluate complex societal challenges from diverse stakeholder and intercultural perspectives (including gender) to creatively identify, select and devise robust, adaptable, ethical solutions using a range of methodologies, theoretical frameworks and data analysis tools.
PLO 3	Rigorously assess and integrate different disciplinary and transdisciplinary knowledge and research methodologies to connect research questions, data and findings to their challenges.
PLO 4	Demonstrate expertise in the identification and application of the latest technological tools to source, analyse, handle, use and communicate complex bodies of data ethically.
PLO 5	Formulate an advanced understanding of transdisciplinarity and demonstrate expertise in the facilitative, communicative, reflexive and collaborative skills to support its practice.
PLO 6	Acquire advanced competency within a range of transversal skills such as teamwork, communication, problem solving, creative thinking, entrepreneurialism, innovation, digital skills and a life-long learning disposition.
PLO 7	Communicate effectively on complex issues that aim for behavioural change, interpreting and connecting complex challenges to diverse stakeholder, disciplinary and intercultural perspectives that encompass global and European citizenship.

This PLO profile contains various domains relevant for a CHARM-EU's graduate. These domains enable us to track the student over a longer period of time. Eventually it will be assessed whether the student has achieved all of the PLO domains on sufficient level. In this way the focus is not on cramming for tests and jumping through the assessment 'hoops' (and mostly to forget the learned material afterwards), but on longitudinal development and follow-up. The PLO domains are listed below.

1	Sustainability
2	Transdisciplinarity
3	Solving challenges
4	Collaboration
5	Communication
6	Scholarship
7	Digital skills
8	Personal & Professional Development

CHARM-EU Assessment handbook



The figure above illustrates how this works. Each assessment in a Module (left side of the visual: Module assessment 1, 2, 3, 4) is associated with PLO domains. This results for each Module assessment in an appraisal per PLO domains. After a multitude of Module assessments there is sufficient information about the student's performance to decide if the student can progress (i.e., Phase decision).

Each PLO domain is then associated with a Module Learning Outcome (MLO). Based on the MLO and the related PLO domain or domains you design your Module assessment.

STEP 1 Selecting my module assessment methods

The assessment methods you choose depend on the Module Learning Outcomes and its related PLO domain and domains. In selecting the Module assessment methods there are several components to consider. These components will be discussed in this section.

Decide the knowledge level

To decide which assessment methods are most suitable for your Module you can use <u>Miller pyramid</u> (<u>1990</u>) (see figure on the right): 1) knows, 2) knows how, 3) shows how, 4) does. The levels 'knows' and 'knows how' are on cognitive level, while the levels 'shows how' and 'does' are on behavioral level. These levels correspond to <u>Bloom's taxonomy</u>:

- Knows: remembering and understanding
- Knows how: applying and analyzing
- Shows how: evaluating and creating

The does level represents observations of the student in practice.

If an MLO is for example "The student can discuss product demands with a client by professionally leading and structuring an advisory meeting." It is most likely that this will link to level 4 "does". The assessment method should therefore support this level. An example could be to video record this advisory meeting and assess the students' communication (=PLO domain) with a rubric.



Miller's pyramid of clinical competence, retrieved from Miller (1990)

STEP 1 Selecting my module assessment methods

Who will do the module assessments?

As a next step in this process, it's important to consider what stakeholders are important in providing feedback. For the PLO domain 'Communication' for example feedback from multiple assessors (e.g., peer, self-assessment, external stakeholder, teacher) can be relevant. In this case, a 360 evaluation (i.e., feedback provided by multiple people such as peers, external stakeholder, together with a self-assessment) could be interesting.

Assessment methods

Then you can choose the assessment method that fits. In this <u>Assessment Matrix</u> you can find inspiration regarding the assessment methods. **Tip:** always be critical that you can educationally justify your choice for a particular method.

'always be critical that you can educationally justify your choice for a particular method'

STEP 2 Creating a rubric

After choosing an assessment method it is important to define what the ideal outcome of the assessment should be by creating criteria in a rubric. A rubric is a tool, that includes descriptions of levels of performance, to enable the grading and/or feedback of students' work <u>(reference)</u>. Since most assessments will cover higher levels of the pyramid of Miller and are often behavioral (collaboration, professionalism, communication etc.), defining clear criteria is important.

Because we aim a longitudinal follow-up of the student on PLO domain level, the PLO domains are central in the rubric. At the end of each Module assessment there should always be an appraisal per PLO domain accompanying the Module assessment. The level of appraisal depends on the Phase of the programme (see table 1). So, for example beginner level is as expected during the Preparatory Phase, but the same level is under expectation during the Flexible Phase.

'...the PLO domains are central in the rubric'

Because we want to make sure that we all measuring the same PLO domains and 'speak the same language' around the levels of the PLO domains within each Phase a group of experts have defined the criteria for each PLO domain and the associated level in so-called rubrics. You can find all rubrics in the e-portfolio Scorion.

In total there are five levels: pre-novice, , intermediate, advanced, and expert. For each PLO domain it will specified what we exactly mean by each level. See below

	PHASE 1 Preparatory	PHASE 2 Flexible	PHASE 3 Capstone
Under expectation	Pre-novice	Novice	Intermediate
As expected	Novice	Intermediate	Advanced
Above expectation	Intermediate	Advanced	Expert

STEP 2 Rubrics

Below you can find the rubric for PLO domain Professional and personal development.

Indicators			Levels		
	Pre-novice (below expectation at the end of Phase 1)	Novice (as expected at the end of Phase 1)	Intermediate (as expected at the end of Phase 2)	Advanced (as expected at the end of Phase 3)	Expert (above expectation at the end of Phase 3)
7.1 Demonstrates reflexive skills (PLO5)	Is not receptive for feedback, gets defensive. Does not or barely reflects on the received feedback. No concrete (SMART) learning goals are formulated.	Is somewhat receptive for feedback, but does not ask actively for feedback. Attempts to reflect, but superficial. Reflective activities do not result in concrete (SMART) learning goals/actions.	Is open for feedback and carefully asks actively for feedback. Reflects on its own actions, conscious and unconscious bias. Tries to convert it into concrete (SMART) learning goals/actions for improvement, and needs coaching in this.	Actively asks feedback and deals with this constructively. Reflects in depth, is self- aware. Independently formulates concrete (SMART) learning goals/actions for improvement. (Partly) realizes learning objectives.	Actively asks for feedback, listens actively and asks for clarity if things are not clear. Is ambitious in converting feedback into reflection on its actions and development points. Independently formulates concrete (SMART) learning goals. Is able to realize its own learning goals.
7.2 Shows skills fostering lifelong learning (PLO7) (e.g., career development, self- management, feedback literacy)	Has insufficient self-awareness and does not seem to be aware of the limits of its skills and knowledge. Is not very critical on its professional development and is insufficiently focused on improving.	Seems to be aware of the limits of its skills, knowledge, and attitude, but does not indicate them actively. Is insufficiently focused on developing professionally.	Is aware of the limits of its skills, knowledge, and attitude and attempts to indicate them. Is open to learn from its 'mistakes'.	Has insight into its own limits of its skills, knowledge, and attitude and indicates them. Is able to self-regulate it's learning process. Can put things into perspective.	Has insight into its own limits of its skills, knowledge, and attitude and is positive, critical about this. Is able to self-regulate its learning process. Shows self-confidence and is able to put things into perspective.

Frequently Asked Questions about designing assessments

What if my assessment is a knowledge test?

In the CHARM-EU programme we focus on student development rather than knowledge acquisition only. Before implementing a knowledge test on the Knows level of Miller's pyramid please consider whether this actually aligns with your MLO. If there is a strong argument for applying this, it is possible as long as you take the following guidelines into account:

- Include ways for the students to learn from the results of the test. For example, showing how they scored in comparison to their peer students, or provide them with specific feedback per question.
- Make sure that there are ways for the student to fill knowledge gaps during the Module. Options:
 - Provide options to show the learned knowledge in other Module assessments. For example, if the student has a lack of knowledge on sustainability content knowledge, the student thinks of an idea (remember: the student is in the lead!) how to fill this gap. The student proposes that he will give a short presentation to its class on sustainability or writes an essay during the next learning activity.
 - Take the knowledge test as an entry test and relate the content of the knowledge of the test to the other Module assessments. The entry test than serves as a first check to give the student guidance on what he or she has to focus on during the Module.
 - You can also think of other creative ideas and discuss this with the WP 4.6 group (contact details: see end of this document).

One assessment is more important than the other, how can I address this?

There can be assessments which are more important than others for example, a large group project. In these cases, it is reasonable that this assessment is weighted heavier than other assessments. Unfortunately, weighing, as in connecting percentages to an assessment, (i.e., 20% assessment A, 40% assessment B) would overcomplicate the holistic Phase decision-making (see: 'How do the Module assessments contribute to the Phase decision?'). However, there are ways to overcome this. Here we present some possible options:

- 1. Connect multiple Module assessments to the product. For example, within a large group project there is feedback from peers, from external stakeholder and teachers on the process. There is feedback on the end product and there is an individual assessment. Now you create more multiple assessments which together have a higher relative weight in the total of Module assessments.
- 2. Include in the student handbook that the important Module assessment should be appraised on sufficient level. If not, the student should contact the Module coordinator for an alternative assessment. If you decide on this option please contact Work Package 4.6 Assessment (see contact details at the end of this document) to check the procedure.

Should I include reflective activities in my assessments?

Yes definitely! Reflective activities are very important for the students to learn from the feedback they received. It can also help teaching staff were to put their focus on in their learning activities for the upcoming period. Please note that reflection can have many different forms (reports, video, audio, art, drawings or even short bullet points).

Tip: for inspiration on these activities we would like to refer you to the Preparatory (P1CT) Phase Knowledge Creation Team. They have presented an interesting way of making reflection a regular and continuous activity. To achieve deep reflection these resources will provide input for student-mentor meetings. Next to the reflective activities within the Modules students write reflection pieces regularly in preparation for a mentor assessment where they reflect on the feedback from all Module assessments in that Phase and define longer term learning goals.

Can I give the student the freedom to choose an assessment method?

Yes. Flexibility is one of the assessment principles and we would like to encourage you to do so. However, please take into account it remains feasible. You can consider offering multiple assessment methods to students to choose from. If you want to incorporate this, please contact Work Package 4.6 (contact details: see end of this document).

STEP 3 Clear expectations management

The first step in creating clear expectations is the rubric itself. It creates transparency to the student and the assessors (teachers, peers and so on). However, this is only a first step. It should be clear to both the teachers and the students what the different levels mean and how to fill in the rubric. Furthermore, it should be clear to both students and teachers that the focus lies on providing meaningful feedback for learning.

Tip for the Module coordinator: make sure that the rubric is in the e-portfolio beforehand for the student to consult. Also, emphasize the use and aim of the rubric in for example the student handbook or during an introductory lecture. To support this, there will be instructions attached to the rubrics in the e-portfolio on how the levels should be interpreted, what is required from the assessor and how the data will be visualized in the e-portfolio.

STEP 4

Taking the assessment

Taking the assessment is not very different from what you are used to. Teachers who are appointed to assess the student, on for example an essay, will fill in the rubric. The student is responsible for attaching the product associated with the assessment in the eportfolio and will send you as an assessor an invitation to fill in the rubric.

'A key feature in making the Module assessment a success is the the provision of meaningful and rich feedback.'

A key feature in making the Module assessment a success is the provision of meaningful and rich feedback. All teachers and students will be trained in providing (and receiving) meaningful feedback. Information on the training sessions for teachers will be provided in the upcoming months.

Frequently Asked Questions around taking the assessment

Does this increase my workload as a teacher?

Instead of an end-of-Module exam there are now multiple assessments throughout the Module. This results in the workload being distributed amongst the assessors over time. Also, not only teachers assess students, but also peers and other stakeholders now have this task. So instead of creating a peak workload at the end of the Module its now spread out over the full Module. Once all Module assessments are completed and assessed, the task of making the Phase (pass/fail) decision is up to the examiners of the Portfolio Assessment Committee. The examiners are faculty members who are appointed and have time allocated for this.

Tip: most teachers think that providing feedback will increase the workload massively. However, when there is a feedback culture in the programme this becomes day-to-day business and part of the learning activities. Please be aware of your pivotal role in creating a feedback culture in our programme!

What happens if the student performs under expectation in my assessment?

Of course, there will be students who perform under expectation. This can happen and this doesn't have major consequences. Instead of 'punishing' the student, the teacher should provide the student with specific guidance on how to improve. Then the student has the responsibility to act upon this accordingly. There can be instances where the performance is extremely low (e.g., mark on a test <40% or a significant deficiency on research skills) or that there are specific elements that cannot be compensated during the other Module assessments. If that is the case the student should contact the Module coordinator. Try to outline these specific cases to the student and redirect them if this happens to the Module coordinator.

What if a student misses a Module assessment?

Of course, it can happen that a student is ill or there is a force majeure resulting in the student to miss a Module assessment. If this is the case, the student should contact the Module coordinator and receives an alternative assessment. However, in practice this will rarely be the case since most Module assessments are Flexible. For example, collecting feedback on communication can occur in multiple instances throughout a project. If the student lacks multiple assessments, is chronically ill, or any other reason for a longer period of absence then the student should be directed to the Examinations board. They will decide on how the student will proceed.

A checklist

Have you included multiple assessor perspectives throughout your Module assessments? For example, peers can provide valuable information on collaboration, or an external stakeholder on communication. A self-assessment can be very valuable in making the learner owner of its own learning trajectory. The more perspectives the richer the information both the student and the examiner of the Phase decision receives.
Is your assessment method optimized for learning (consistent with CHARM-EU vision)?
 Is there plenty of room for narrative feedback? Does it provide guidance for the student's learning trajectory? Feedback is key in our programme. The way the assessments are designed, but also the way different stakeholders are engaged with them are massive game changers.
Have you included both group assessments and individual assessments? Only having group assessments might result in students who have concerns stay 'under the radar'.
Do you have a mix of assessment methods?
Are your Module assessments aligned with the PLOs domains to facilitate holistic and credible Phase decision-making?
Do you provide the students with opportunities to fill their competence gap (i.e., other ways to show that they achieved a certain learning goal)?
Do your Module assessments facilitate that the student is owner of its learning and assessment journey?
Have you thought of ways to create follow-up and/or alignment among the module assessments? Only seeing a student very shortly prevents assessors from providing meaningful feedback. Make sure that there is some follow-up in the larger projects. For example, having a teacher who provides feedback multiple times. In this way, the teacher can address the progression of the student. Secondly, especially in the case of knowledge tests. Make sure that the student has time to compensate an under expectations score on an assessment method.
Have you focused on assessing higher level competences (rather than only content knowledge retention)? Challenge based learning focuses rather on development of competences than knowledge (higher on the pyramid of Miller).
Have you considered the workload of your assessments? It's important to have a lot of rich information about the student, but having an assessment every day very likely results in an overload for both the students and the assessors. Try to get a good sense of the workload versus the added value of the assessment.
Have you talked to the other Modules of your Phase about assessment? (only applies to the Preparatory and Flexible Phase) Since the Modules will take place simultaneously it's good to review the assessment activities as a whole. For example, if all of the Modules incorporated 4 presentations (resulting in a total of 12 presentations), this might be a bit too much for the student. Furthermore, always keep in mind that for the Phase decision it's important that there is sufficient evidence per PLO Competency per Phase. So, communicating with the other Modules of your Phase is essential to check if all PLO Competencies are covered. Please note that this process will be supported by the facilitators and the Module Advisory Board.

The next sessions provide further contextual information about the programme. Please note that the information presented here is not the core business of Knowledge Creation Teams, teachers and Module coordinators. Your focus is on creating the Module assessments.

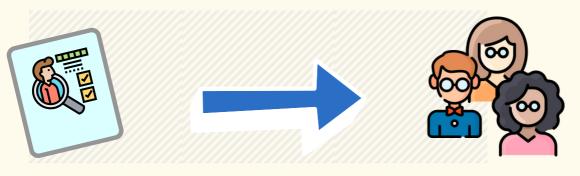
Putting it all together

How do the Module assessments contribute to the Phase decision?

Throughout the Phase the student collects multiple Module assessments. Furthermore, there is a mentor advice, here the mentor meets with the student and discusses the received feedback with the student and together they take actions to improve future performance. The mentor writes a piece regarding his or her view on the student's progression and performance (=Mentor advice). This will be included into the e-portfolio.

The Module assessments and Mentor advises form a rich and sharp picture of the student's performance. All assessment information, including the products associated with the Module assessments are uploaded in the e-portfolio. At the end of each Phase a pass/fail decision will be made together with a mark (0-100%) based on the e-portfolio. This will be done by the Portfolio Assessment Committee (PAC). The PAC consists of multiple appointed examiners trained to review the assessment information in the e-portfolio. It's not just a matter of adding up the scores on each PLO domain and averaging it, it's a holistic judgment taking all information (scores, narratives) into account together with the progress of the student. This not only results in a mark for the Phase (and subsequently the Modules). But is also provides an elaborate written justification of the decision made and feedback for the student in continuing to the next Phase or early career.

Tip for Module coordinators: in designing your Module assessments is good to take into account that all Module assessments should be finished and assessed before the end of Phase. On the last day of the Module the portfolio will be shared with the examiners of the Portfolio Assessment Committee. The result of the assessment (and subsequently the grades per Module) will be communicated during the next Phase.



Portfolio Assessment Commitee

e-portfolio

How do we get grip on the large amount of data? The e-portfolio

Having multiple Module assessments within and across Modules results in a lot of assessment data (e.g., level appraisal per PLO domain, narrative feedback). How do we get grip on the large amount of data? Well, the answer is: an e-portfolio.

In the e-portfolio all Module assessments will be collected over time. This enables:

- 1. An overview of all the assessment data.
- 2. Facilitation of logistic and administrative procedures
- 3. A quick overview of the assessment data.

The e-portfolio system we are going to use in our program is <u>Scorion</u>.

The e-portfolio is not merely an archive storing the data, it also has dashboards visualizing the data together with overviews of the narrative feedback. For example, spiderweb charts showing the average PLO domain level per Phase of the student or scatterplots, plotting each Module assessment as a data point together with an appraisal on PLO domain level (y-axis) and reference to the related narrative feedback.

For now, it's sufficient to know that all the data will be stored and comprehensively visualized in an eportfolio. There is a separate handbook and training for all relevant stakeholders on how to work with the e-portfolio.

What else should I know?

Rules and regulations

To get a full picture of the assessment program it's preferable to have knowledge on the rules and regulations. In this section we provide a summary on how summative marks will be given, regulations around remediation and repetition, and the degree award.

Marks and grades

The Phases will be marked during the high-stakes Phase decision from 0-100%. A pass mark on each Phase (thus all Modules related to that Phase) is 50% and above. The mark of the Modules of the Phase will be the overall mark obtained in the Phase itself.

Remediation and repetition

A student who does not achieve the required standard for any Module assessment or mentor advice will need to remediate the assessment activity. The student itself is in the lead for this by formulating learning goals or discussing plans with the Module coordinator. Students with a mark between 35-50% can continue their programme in the next Phase, but will get a remediation plan to solve the deficiency within a set time period. When a mark of <35% is attained the student has to resit the assessment of that Phase or part of it.

Degree award

The average mark/grade represents the academic performance of the student on a scale of 0 to 100. It is calculated on the basis of marks for the high-stakes assessments per Phase (Preparatory Phase, Flexible Phase, and Capstone Phase) and the applicable numerical results in each Phase for the Modules the student has passed within the examination programme (P1+P2+P3)/3. An average of the results of the three Phases will be used.

'Students with a mark between 35-50% can continue their programm in the next Phase, but will get a remediation plan to solve the deficiency'

A final note...

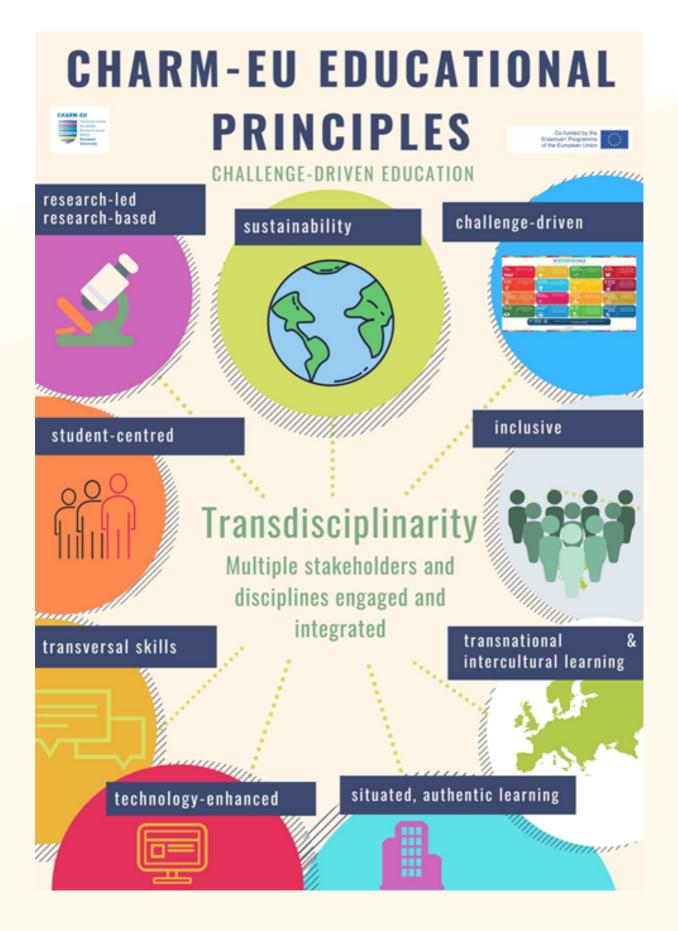
Please be aware that there is room for creative and innovative ideas around assessment. Most important is that we fulfil the broad principles of our assessment program and that the full range of assessments of the whole program align with each other. At the end we want a coherent assessment programme where the student is longitudinally monitored and development can be visualized on PLO domain level.

So, if you have a suggestion, experience a barrier, or anything else around assessment.

Don't hesitate to contact us.

Lead WP 4.6: Lubberta de Jong (l.h.dejong@uu.nl) Co-lead: Silvia Gallagher (gallags6@tcd.ie) WP 4 general: co-lead Sanne van Vugt (s.j.h.vanvugt@uu.nl)

Appendix 1



Appendix 2

This appendix provides an overview of the implications of the Educational Principles for assessment.

Educational principles	Implications for Assessment
Challenge-driven	practical, real-life assessment methods
	 feedback, facilitation, mentoring, formative assessment
	adaptivity
	a continuous approach to assessment
	 focus on student development, rather than knowledge acquisition only
	 the importance of involving industry, clients or other stakeholders in the assessment process
	self- and peer assessment strategies
Research-led, research- based	 research skills should be assessed
	 transversal skills are needed in order to perform research
	 assessment techniques and principles should be based on best practice and be research informed
Sustainability	 involving the impact of results in the field, not only within teaching and learning context.
	• the assessment must verify that the student :
	 acts in an inclusive manner, taking into account the socio-economic context and minimizing its environmental impact;
	 proposes sustainable solutions for global challenges.
	• the assessment must be sustainable by being accessible to all and in particular by minimising the environmental impact of its implementation
Technology-enhanced	and use.
recimology emilanced	 opportunities for online assessment and emerging technologies, such as simulations ("real life assessment"), artificial intelligence (adaptive learning, self-assessment, auto grading and tutorship), mixed reality, collaborative assessment
	 possibility of using learning analytics in order to foster adaptive assessment
	 assessment can be organized time and place independently
	efficient organization of assessment
	 assessment must use technology-enabled assessment tools
	 student created multimedia artefacts for assessment (e.g. digital literacy skills)
Student-centred	 assessment could be independent of time and location
Student-centred	 alignment between program learning outcomes, the students learning pathway and a mentor
	 own learning path, self-directed assessment
	 freedom in choosing an assessment method (oral, written etc.).
	 mentoring and guidance
	• self-assessment
	peer-reviewed assessment
	reflection
	 iterative formative feedback in order to reflect and improve
	assessment should be independent of the academic outcome, meaning that a project can fail but the process can still be graded positively
Situated learning	field work and internships
	external/stakeholders assessors
	collaboration with industry
	 students, as members of different communities of practice, will also be assessed by peers from those fields
Transversal skills	authentic tasks
	 importance of assessing transversal skills and development of a skills framework to do so
	 assess on a programme level through an overarching assessment approach
	 the assessor should have expertise in assessing transversal skills
	 assessing transversal skills may demand a more process-oriented assessment approach
	 monitoring of the development of transversal skills is crucial
	 portfolios and peer feedback are opportunities for assessing transversal skills
Transdisciplinarity	 assessment designed collaboratively by multiple academic teachers with different disciplines and fields of expertise
	 assessment of transdisciplinary skills such as complexity theory or System's Thinking
	 identification and integration of viewpoints (disciplinary or extra-academic) are assessed
Transnational and	 assessment on skills gained through mobility and internationalisation 'at home' activities
intercultural learning	intercultural reflections
	 utilization of assessment techniques, matching with mobility values
Inclusivity	- utilization or assessment techniques, matching with monity values
	 reliable judgement of students' capabilities
	 reducing and minimizing the influence of other factors related to inclusivity (culture, socio-economic level, ethnicity, gender, race, religion, sexual orientation, physical or mental disabilities)
	 using a variety of assessment methods and providing flexibility in how students demonstrate their knowledge
	language support for non-native speakers
	offering alternative assessment modes if necessary
	 formative assessments and feedback