Axis 7: Evaluation and eLearning in Higher Education

Theoretical part

Learning Outcomes

Knowledge	Skills	Attitudes
K7.1. Define evaluation in the HE context	S7.1. Identify the aspects of HE evaluation that are most relevant to eLearning	A.7.1. Articulate how eLearning fits into the larger context of evaluation in HE
K7.2. Identify the most common ways to evaluate eLearning in HE	S7.2. Select context-appropriate methods for evaluating eLearning	A.7.2. Share ideas about ways to evaluate eLearning
K7.3. Explain the criteria used to select evaluation methods for eLearning.	S7.3. Create an evaluation plan for eLearning	A.7.3. Collaborate with colleagues to design an eLearning evaluation plan for HE

Topic 1: Evaluation in Higher Education

In this topic, we will explore evaluation in Higher Education as eLearning is often evaluated together with more traditional approaches to teaching and learning. As such, it is vital to understand the broader context for evaluation in Higher Education before deciding how to evaluate eLearning. Topics 2 and 3 will explore the specifics of evaluating eLearning in more depth, so this first topic will provide the broader context and foundation by examining current practices in evaluation in Higher Education.

Mentimeter poll with word cloud: What does "evaluation" mean in HE?
- Group discussion of the resulting word cloud
- NOTE: can use other tools, but the word cloud is very useful for sparking discussion of broad topics such as "evaluation"

Student feedback is a core part of evaluation in Higher Education, but it is not the only way to evaluate teaching decisions and approaches. The approach you take in your own institution or teaching will be determined by the following factors:

Why Evaluate?
We evaluate teaching and learning for many reasons including:
1. Improving a module/programme
2. Enhancing student learning
3. Identifying what parts do/don't work
4. Measure student learning and engagement
5. Improve an individual teacher's practice and pedagogy
6. Required for accreditation or outside funding

Most evaluations will involve more than one of the above reasons, but rarely all. So it is important to think about **why** you want to evaluate a given module, programme, or session before deciding **when** or **what** to evaluate as your answer to this first question will narrow your choices later.

When to Evaluate?
Most of us are familiar with the end-of-module evaluation. This survey is one of the most common forms of evaluation in Higher Education, but it is far from the only opportunity to evaluate learning and teaching. While there are countless moments and ways to evaluate, they fall into two general categories:
1. **Formative Evaluation** is evaluation that takes place at any time during the design and delivery stages of a module, programme, or session. This is when a teacher checks in with students (or analytics, or marks, or some other measure) to assess how well the module is working.

2. **Summative Evaluation** is evaluation that takes place at the end of a module, programme, or session. It usually takes the form of a survey asking for student feedback on the module/programme/session as a whole as well as specific aspects.

A useful metaphor is that formative assessment is when the cook tastes the food and summative assessment is when their guests tell them what they thought after eating it.

Remember! This is not an either-or decision! You can use both types of evaluation if it seems useful or switch between the two depending on **what**, exactly, you're hoping to learn from the results.

What to Evaluate?
The question of what you hope to learn is vital when planning how to evaluate teaching and learning. It's very important to make sure that what you're evaluating fits with your decisions on **why** and **when** to evaluate. So, for example, if you're hoping to evaluate how students understand a foundational concept, you would want to evaluate them as early as possible so as to make changes in time to improve their understanding. Similarly, if you want to evaluate student impressions of a programme as a whole, you would wait until they are nearly done before asking for feedback.

Some other aspects of teaching and learning which are often evaluated in Higher Education include:
- **Student Learning** often takes the form of formal assessments including tests, essays, or projects, but can also be more informal snapshots of student learning such as polls, quizzes, or class discussions.
- **Module Content** usually includes questions about the specific topics and ideas explored in the module, the lecture outline or assignments, but can also involve guest speakers and the organisation of these topics (e.g. chronologically or thematically)
- **Specific Learning Activities** such as group work, in-class discussions, role-playing exercises, debates, and the like, but could also involve evaluating lectures or lab procedures
- **Teaching Methods** often involve comparison of lectures and discussions as ways of sharing knowledge, but could also include evaluation of feedback on assignments, scaffolding of skills, opportunities to practice the skills being studied
- **Accessibility or Inclusivity** is an evaluation of any barriers to full participation in the module, programme, or session experienced by students with different abilities, backgrounds, or skills

What about eLearning?
As mentioned above, eLearning is learning. The delivery methods and even assessment might be dramatically different, but for many administrators, the differences aren't large enough to justify a separate evaluation scheme for eLearning.

And so, most evaluation of eLearning in Higher Education takes one of the following forms:
- Exactly the same as for traditional teaching
- Adding a few eLearning questions to the standard survey
- Independent evaluation by teachers

As discussed in the next section, rubrics and procedures specifically designed for eLearning do exist, but they are usually too expensive or labour-intensive to be adopted widely across Higher Education.

Short group discussion: How does your institution/unit evaluate eLearning now? What do you think is the most important part of evaluating eLearning (add answers to Padlet)

Topic 2: Evaluating eLearning

In this topic we will explore different ways to evaluate eLearning. These methods range from formative evaluations of classroom teaching (e.g. polls or discussions or even paper-based evaluations such as CATs, or Classroom Assessment Techniques). This topic will introduce some broad categories of ways to evaluate eLearning including:
- Reviewing Student Learning
- Student Feedback
- eLearning Rubrics
- Analytics

Many of the above approaches can be used together with other approaches, but each can work as a stand-alone evaluation method, so we'll review them individually before discussing ways to bring them together in Topic 3.

1. **Reviewing Student Learning**
This approach is likely quite familiar to most teachers. Just in a classroom-based module, student learning is a powerful indicator of good course or programme design. For this evaluation approach, you might:
- **Review Student Marks** and consider the ways that marks in the eLearning modules or components relate to those in more traditional classroom-based modules. You may also use less formal learning evaluations such as:
- **Classroom Assessment Techniques (CATs)** including:
  - o **One-Minute Papers** in which students write for one minute on a topic related to the module/session, the writing is collected anonymously, and then reviewed to determine how well the student understand the topic and whether there are any common errors. These would then be discussed in the next session.
  - o **Muddiest Points** in which students are asked to write down a quick answer to the question: "What was the muddiest point in [the lecture/discussion/assignment]?" (Note: "muddiest" means "unclear" or "confusing" in this context.)
  - o [Click here for other CATs that can be used for evaluating learning in both eLearning or classroom teaching.](#)
- **Polling** is a great way to quickly check whether students understand specific points. These tools allow you ask a wide variety of questions including True/False or multiple choice questions, ranking questions, or free-response questions such as the poll at the start of this session.
- **Discussions** are an important part of eLearning and monitoring the discussion boards is a really powerful way to both engage with your students and to keep an eye on what they understand from their learning.

A key advantage of this type of evaluation is that you have very rapid results and can adjust your teaching methods appropriately to better support student learning. It can also be very empowering

for students to see that you actively value their perspective and experiences which can benefit engagement in the module or programme more broadly.

2. Student Feedback

A vital component of any evaluation plan, student feedback most often takes the form of end-of-module or end-of-programme surveys. These are often administered by the University across all modules or programmes so staff will often add their own questions or run a separate survey to get answers to questions more directly relevant to the module or their own approach to teaching. This is particularly true with eLearning as the digital platform often creates spaces for more formative surveying while the module or programme is in session as well as at the end. These surveys can be easily deployed using bespoke surveying tools, Google Forms, or Microsoft forms with results available quite quickly to whomever created the original form.

3. eLearning Rubrics

As eLearning becomes more popular, so to have the variety of rubrics specifically designed to evaluate eLearning. These rubrics offer users a way to efficiently identify aspects of eLearning such as course design, navigation, use of learning activities, communication and clarity of instruction, use and scaffolding of digital tools, etc. Some popular rubrics include:

- [Quality Matters Higher Education Rubric](#) (PDF)
- [SUNY Online Course Quality Review Rubric](#) (SUNY = State University of New York)
- [University of Ottawa Blended Learning Course Quality Rubric](#) (PDF)

These and similar rubrics and frameworks offer a structured way to review online learning and, if properly resourced, can ensure a uniform standard across an institution. However, there can be a steep learning curve to these evaluation tools and they are often linked to third-party consultants with limited materials freely available. These rubrics enable targeted evaluation of key elements of eLearning, but can be very time-consuming to use and interpret. One approach is to encourage self-evaluation of modules rather than attempt a centralised survey with detailed rubrics.

4. Analytics

One evaluation advantage of eLearning is that the majority of the teaching and learning takes place inside digital environments, particularly institutional Virtual Learning Environments (VLEs). As these platforms serve as a central repository for teaching – in the form of pre-recorded lectures, demonstrations, recordings of live sessions, guided readings, etc. – as well as for assignments and other supporting materials such as readings, documents, data sets, etc., students in eLearning modules and programmes will spend significant time navigating the platforms to access all parts of their course. This activity is captured the analytics within each VLE. These analytics can, in turn, be used to evaluated student activity and engagement in their learning.

With this data, it is possible to see how much time a student spent in the course, what activities they engaged with, what materials they accessed, how long the spent on certain activities, how

frequently they returned to specific components, how much of each instructional video they watched, etc. There is a wealth of information in this data, but it can be very time-consuming to analyse it for accurate evaluation.

Some simple ways to use analytics for evaluating eLearning include:
- **Reviewing which parts of the module saw the most traffic**
  - Can indicate interest in the topic OR unclear assignment instructions
- **Examining average viewing times for instructional videos**
  - If the majority of students stop watching after a certain time, consider recording shorting videos in future years
- **Checking usage statistics for new materials**
  - If you added a video explaining an assignment, check the viewing statistics after assignment submission to see if students actually used the materials you provided. If not, spend that time on a different part of the course next year. if yes, consider doing something similar in other classes or for other assignments.
- **Compare course engagement data with students marks**
  - If you notice a pattern between number or pattern of visits and marks, consider implementing some sort of early warning system when students stop engaging with the course as a way to possibly reach them when there's still time to recover and pass the module
  - NOTE: This is potentially problematic as students often download materials and read offline, so time spent in the course does not always map to marks.

If you chose to use data analytics, be aware of some of the potential pitfalls:
- Students do not always engage with eLearning consistently or in ways that the VLE can capture. For example, they may:
  - Students may log in at the start and download all readings only logging back in to submit completed work.
  - Students may leave the VLE open in a browser tab for days resulting in skewed data.
- Spending large amounts of time in the VLE can indicate either dedication (someone reading all the provided materials thoroughly) or confusion (someone watching the same instructional video multiple times)
- There are very serious ethical and GDPR considerations in accessing and analysing student data. Please review these with the appropriate offices at your institution before using analytics in any depth.

Topic 3: Designing an eLearning Evaluation Plan

Evaluating teaching is a core component of Higher Education and eLearning is no exception, but must be implemented carefully to be most effective. Planning an evaluation strategy – whether for a single module, a full programme, an academic unit, or the entire university – is a useful first step in ensuring effective evaluation of eLearning. This topic will explore key factors to consider when designing an eLearning evaluation plan.

These factors include both **what** and **why** you're evaluating as well as **practical constraints** that will shape **how** you evaluate the eLearning.

What and Why:
- Focus
- Goals
- Audience

Practical Constraints (How)
- Time
- Expertise
- Resources

Mentimeter poll (ranking question): Rank the listed considerations from most to least important.
- Group discussion of the responses
- Then discuss the considerations below in that order
    - NOTE: if you don't feel comfortable jumping around like that, move this poll to the end of the Topic and use the hidden slide.
- NOTE: could use Padlet, Jamboard, Google/Microsoft Forms, or even post-its and pens for this exercise

NOTE: the slides are in alphabetical order, but the notes below discuss them more thematically, starting with **what** and **why** you're evaluating.

Goals
Similarly, will the evaluation results be used to improve individual modules or teaching practices? Or will they be used to evaluate institutional offerings more broadly? Will the results be used to revise and update a programme or teaching methods? Or will they be used to secure external accreditation or funding?

Focus
Will you be evaluating a specific module, an entire programme, or modules across a unit or institution? Will you be looking at specific details —such as teaching methods or learning

design or tool usage, etc. – or a more general opinions? Make sure that the evaluation approach will capture the necessary data.

Audience

Does a teacher want to evaluate their own modules or teaching? A unit head the eLearning work done across a unit? A programme coordinator the general views of students on a programme? Do institutional leadership want to evaluate eLearning across the University? This consideration is often most important in determining how the results will be shared (e.g. how much information is included in the final results)

Now that you know **what** you want to evaluate and **why**, you can consider the **practical constraints** that will shape any evaluation plan such as:

Time

The more time you have for the evaluation and analysis, the more ambitious and complicated your plan can be. If you only have a few weeks, however, you'll have to adopt a much simpler plan regardless of other factors.

Expertise

Do you have to conduct the evaluation yourself or will another office or unit take that on? Will you be able to outsource any of the more skilled elements (e.g. analysis of analytical data from the VLE)? Will whomever is doing this work be doing it in addition to other duties or is it a primary component of their job? Is the tool (or rubric or approach) easy to use? If you're planning to use innovative evaluation approaches, you'll need to consider how long it will take people (you or others) to become proficient enough at the tools to conduct the evaluation. If the tools are time consuming to learn, you'll need to factor that time into your planning.

Resources

If you have access to people with specialised skills in surveys, data analysis, or any tools you plan to use, you can be far more ambitious in your planning even if the timeline is tight. The same applies to budget, if you're able to outsource some of the more highly-skilled elements of your plan, you'll be able to do more faster, but at a higher cost. If, however, you only have the existing resources of your unit – or, perhaps, just yourself! – you'll have to be far more strategic in planning your evaluation approach.

Conclusion

As we've seen, there are countless ways to evaluate eLearning (including student learning, surveys, rubrics, and analytics) and many important factors to consider when deciding what and how and when to evaluate eLearning. Each situation will have different priorities and considerations, so

there really isn't a one-size-fits-all approach to eLearning evaluation, but the important thing is to stop and think about all of these factors before starting the evaluation process. What you (or your institution or unit) emphasise will often make other decisions for you, so time spent planning and thinking early in the process is time well-spent!

Practical Part: Scenario Activity

Context
You have been asked to draw up a plan for evaluating eLearning at either the institutional or module level. There is already a centrally-administered end-of-module survey in place, so you may opt to add eLearning questions directly to the survey and/or may add other evaluation methods such as rubrics, analytics, etc. You must give a 5-minute presentation explaining the key aspects of your plan its rationale to senior administration.

Personas
You must design your plan from one of the following perspectives:
1. You are a module coordinator who is new to eLearning. You're a very experienced teacher, but don't have a lot of confidence with technology. This will be your first time in an eLearning environment. Both your colleagues and your Head of Department support this new eLearning module.
2. You are a module coordinator with significant eLearning experience. You teach statistical analysis and are very comfortable with technology. Your colleagues and your Head of Department do not oppose your work in eLearning.
3. You are a Head of Department teaching both individual eLearning modules and full eLearning programmes. You want to evaluate the Department's use of eLearning and to try and ensure a consistent standard. You have limited access to some central support (both budget and IT expertise).
4. You work in the office of the Vice President for Learning and Teaching. You are very experienced with survey-type student evaluations, but do not have much experience with eLearning, but have colleagues with significant technical skills who can be assigned to the project if needed.

Tasks
1. Pick the perspective for your group
2. Briefly outline the priorities for the new evaluation plan. Specifically
   a. Who is the main audience? (e.g. University administration, academic units, individual teachers, or students)?
   b. What aspects of eLearning will be evaluated? (e.g. tools, module structure, teaching methods, etc.)
   c. When will the evaluation(s) take place? (e.g. summative or formative evaluations)
   d. Who will administer the evaluation(s) and analyse results? (this can include multiple people, units depending on the evaluation methods chosen)
3. Decide what eLearning evaluation method(s) to include in your plan. You can include up to three methods (including adding questions to the existing survey)
4. Present your plan to the rest of the group with a brief presentation or briefing note

For the trainer when giving feedback:

Participants will be assessed on:

- **The quality of the plan:** Is it clearly outlined? Is it achievable? Is it appropriate for the goals selected by the team? Is it properly resourced re: staff time, expertise, and/or tools?
- **The presentation of the plan:** Did the audience (yourself and the other groups) understand the goals of the plan? Did the rationale make sense? Does it seem like the best way to evaluate the eLearning?
- **Ability to answer questions about the plan:** Did the team respond thoughtfully to criticisms? Did they have answers for any questions asked?

Resources

1. Sample end-of-module survey from University College Cork

2. SUNY Online Course Quality Review Rubric (SUNY = State University of New York)