

Exploring innovative assessment methods



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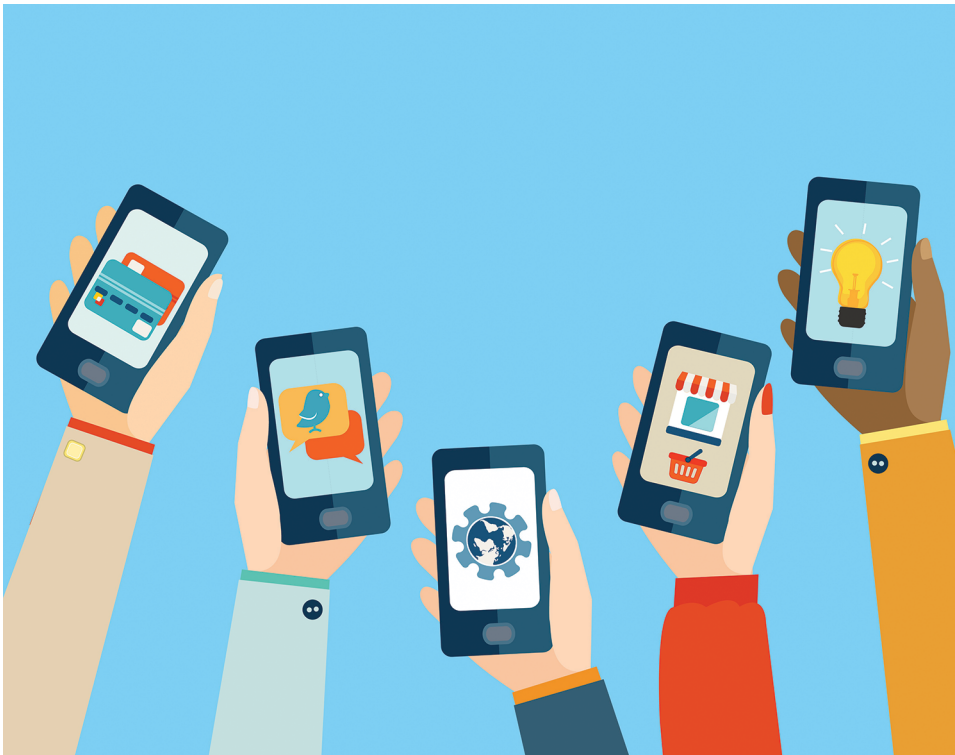
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Week 1: What is innovative assessment and why is it useful?

Introduction

Innovative approaches to assessment can help learners to demonstrate skills for society, employment and education. Mobile technology means that many learners now have direct access to handheld computing. As a result, different types of assessment can now be produced and applied.



This week you will begin by examining the purpose and benefits of innovative assessment in modern education. You will review a competency-based approach to education and compare this with traditional or constructive alignment-based approaches to education. You'll move on to investigate what skills are needed by learners in today's society and how innovative approaches to assessment might help educators to help learners demonstrate these skills. You'll also look at how innovative assessments can be used to

more closely reflect what is taught and how learning can be more closely aligned to the skills required for employment and access to higher education.

By the end of this week, you should be able to:

- describe the purpose and benefits of innovative assessment
- compare competency-based and constructive alignment-based approaches to assessment
- describe how innovative assessment can help learners demonstrate skills for society
- discuss how innovative assessment can enable learning to reflect better education and employment skills.

1 Competency versus constructive alignment-based approaches to education

Understanding the difference between competency-based and traditional or constructive-based approaches to education is useful. It will help you to develop a foundation from which to implement innovative assessments with greater understanding and certainty. So, before you begin to contemplate what innovative assessment is and how it could be useful, you must first explore competency and constructive alignment in relation to education.

Figure 1 explains some of the differences between traditional education and competency-based education. For example, you will see that one characteristic of traditional education is that the learner would learn from a text book whereas competency-based education encourages the learner to learn through active research.

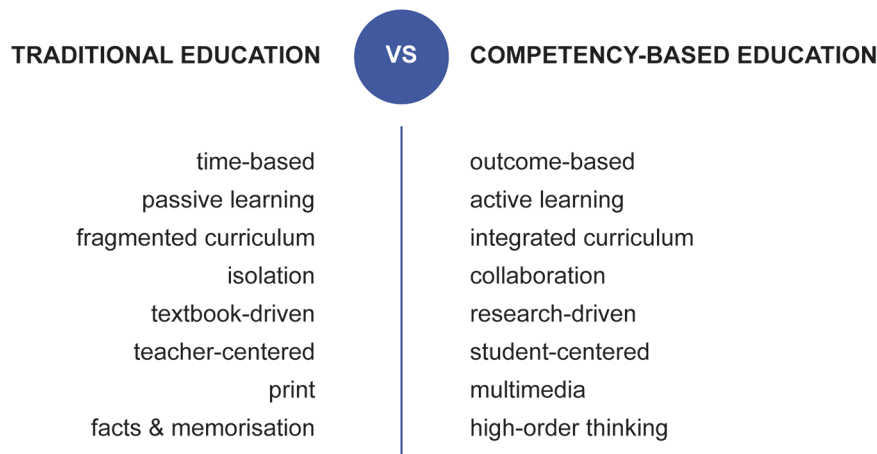


Figure 1 Traditional education vs competency-based education

1.1 Traditional education or constructively aligned curriculum

Many of the courses and programmes of study that a learner embarks upon require them to achieve learning outcomes. To achieve these learning outcomes the educator must make some deliberate attempts to impart information to a learner. This can involve using tutorials, lectures or perhaps even books to read or study notes. The focus of the constructively aligned curriculum is to help the learner acquire information about the subject. The learner is subsequently evaluated on their understanding of this information using a variety of assessment techniques including assignments, examinations, presentations or a written essay, amongst others. As a result, within a curriculum that is constructively aligned, learning and assessment should:

- have clearly defined learning outcomes

- demonstrate teaching and learning activities and methods that lead to the achievement of the defined learning outcomes
- objectively assess what learners have learned against the outcomes
- enable arriving at a grade based upon standardised assessment (assessing a learner's understanding of a subject area which results in a formal grade being given is known as 'summative assessment').

1.2 Formative and summative assessment

At this point, it is worth introducing you to **formative** and **summative** assessment types.

Formative assessments are assessments that do not contribute towards the mark or award achieved in the course of study. Nonetheless, formative assessments provide a useful opportunity to determine assessment for learning. Formative assessments can be something as simple as asking a class question and determining what they understand by the responses. It might also involve learners engaging in a group discussion regarding a topic.

In contrast, **summative assessments** are used to determine what has been learned. For example, a summative assessment could be an exam where the mark achieved determines the grade a learner is awarded in a subject. Or, an assignment submitted by a learner that contributes towards the grade achieved in the course of study.

An easy way to separate formative assessment from summative assessment is to think of it this way:

formative assessment is **for** learning

summative assessment is assessment **of** learning.

1.3 Competency-based curriculum

Figure 2 portrays some of the key aspects of a competency-based curriculum. The focus is upon the learning process and should include input measures that encompass quality control; have involvement from employers; have access to real world or residential experience where possible; develop skills to be an active citizen; and include teaching and assessment that demonstrates skills across multiple areas, e.g. how science works in the real world. Finally, the output involves assessment that demonstrates competence in preparation for future education or employment.

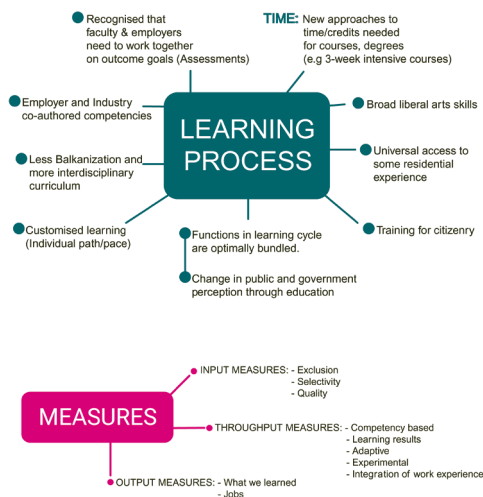


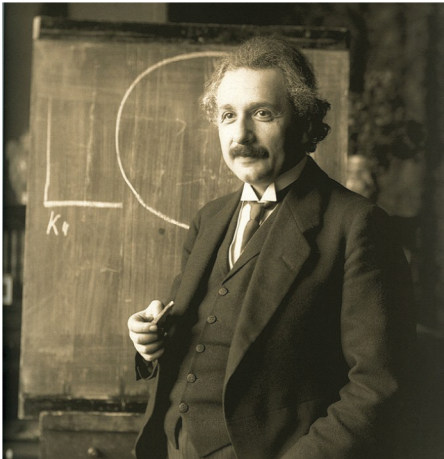
Figure 2 The key aspects of a competency-based curriculum

A competency-based curriculum focuses less on what learners need to know and more on how learners apply their knowledge, skills and attitudes to the real-world environment. As a result, a competency-based curriculum helps learners to develop specific and generic competencies required to either progress in their education or progress into employment. In a competency-based curriculum learners are required to incorporate the elements of a constructively aligned curriculum, outlined in Section 1.1, and in addition:

- build upon demonstrated mastery of subject knowledge
- demonstrate their ability to transfer learning between different environments (this can include tasks where learners are asked to demonstrate their knowledge but do not receive a final or formal grade and is known as 'formative assessment' or assessment for learning)
- complete assessments that are meaningful and relevant to the skills required in the workplace
- develop and apply skills and dispositions needed for successful employment.

2 What skills are needed in today's society?

Sir Ken Robinson challenges current education practices. He advocates a culture of creativity and awareness of multiple intelligence types. In the following activity you'll watch a video in which he asks what education actually does for learners.



*"Everybody is a genius.
But if you judge a fish by its
ability to climb a tree,
it will live its whole life
believing it is stupid"*

Albert Einstein

Figure 3 Albert Einstein's quote on intelligence

Activity 1 Sir Ken Robinson

Allow approximately 20 minutes

Watch the [video of Sir Ken Robinson \(2006\) on Ted Talks](#) from 9 minutes in to 12 minutes. Open the video in a new tab or window by holding down Ctrl (or Cmd on a Mac) when you click on the link.

The video is designed to help you think about the knowledge, skills and competencies your learners may need if they progress onto further or higher education or employment. After watching the video answer the following three questions (you will revisit your answers to these questions at a later stage and they will be saved within the course).

1. Assuming your learners will progress to university, what skills do your learners need to progress in education from now until they graduate?
2. Assuming your learners may leave the education system and not attend university, what skills will all the learners need to progress into employment?
3. Assuming your learners will progress to university, what skills do your learners need to progress into employment after they graduate?

Provide your answer...

You will return to the answers you have offered for the above questions at the end of the course. In the next section you'll look further at how the skills required today relate to what is taught.

2.1 What is taught and what skills are required?

Today, knowledge and skills in mathematics, science and English are still important, and they should be. However, the Industrial Revolution required learners with these skills because the focus of employment during this period was to expand mechanically, technically and scientifically and this required the knowledge and skills required from these subjects.

To make learning and assessment easier, where assessment of learning was concerned, learning was standardised. Additionally, academic ability in several key areas became the focus of attention – mathematics, science and English were among these subjects. This was because success and employment were predicated upon a society where 'the idea of academic ability' formed the basis for most types of learning as well as a measure of intelligence.

Currently, society offers a wider range of employment opportunities that are not exclusively focused on key areas of the education curriculum. Further, how learners are assessed on what they have learned may not be reflective of how they will demonstrate these skills in working life. So, what skills are required in today's society?

Sir Ken Robinson talks about how it is difficult to predict the skills needed for education in the future. His comments are as relevant now as they were in 2006 when the TED Talk you watched in Activity 1 was filmed. They are relevant because the current education system still values the skills and competencies that were important during the Industrial Revolution. Even today, learners are directed towards university education. For instance, The Office for National Statistics (2017) state 'in 2017, 21.7% of those who graduated before 1992 were overeducated, whereas the corresponding figure for those who graduated in 2007 or later was 34.2%'. These figures indicate that the population is becoming educated to a higher level as time progresses.

Henseke *et al.* (2018) indicate that, since 2006, in Britain generic work-based skills such as using a computer and complex problem-solving skills have increased continually whereas literacy and numeracy skills have stagnated. Further, from 1986 to 2017 jobs that required no qualification upon entry moved from 38% to 23% and jobs requiring higher level qualifications moved from 20% to 38% in the same period (Henseke *et al.*, 2018). The implication for this is that as more people become better educated the requirements to enter the workplace have changed. This is something Robinson (2006) discusses when he notes that 'a process of academic inflation' is present. Here, the prevalence of people with a certain qualification reduces its significance. This results in employers raising entry level requirements to apply for jobs. This practice is also evident at universities where entry requirements can be increased or reduced to ensure places on degree courses are not over or under-subscribed.

Table 1, from data first published in 2016, presents the difference between skills and competencies required from the work force in 2015 and 2020.

Table 1 Top 10 skills required from the work force

In 2020	In 2015
1. Complex problem solving	1. Complex problem solving

2. Critical thinking	2. Coordinating with others
3. Creativity	3. People management
4. People management	4. Critical thinking
5. Coordinating with others	5. Negotiation
6. Emotional intelligence	6. Quality control
7. Judgment and decision making	7. Service orientation
8. Service orientation	8. Judgment and decision making
9. Negotiation	9. Active listening
10. Cognitive flexibility	10. Creativity

Source: World Economic Forum (2016)

Now complete Activity 2.

Activity 2 Your own experience of education and learning

Allow approximately 20 minutes

There is no suggestion above that the education system is flawed but neither that it is perfect. Reflect on the following questions and make some notes. Click save in order to be able to view all your activity answers together at the end of the course.

- How often do you use what you learned during your GCSEs, A-levels, BTEC, degree or other formal qualification, in your job?
- Are you more likely to use the skills, competencies and dispositions you acquired during your education as opposed to the knowledge/content of the subject, itself?

Provide your answer...

Do you think the assessments you completed as part of your education:

- reflected how you learned in class?
- allowed you to demonstrate the depth and breadth of your knowledge?
- provided you with skills needed to be successful in your current career?

Provide your answer...

Standardised assessment

In order to ensure a 'level playing field' for all learners, assessment of learning was standardised. This meant all learners could be assessed against certain learning outcomes required to pass an assessment or progress onto a higher level of education. Sometimes, how learners are assessed is disconnected from the way that they are taught. Also, from time to time how learners are assessed isn't a true reflection of what they will

be required to do if they progress onto higher education or employment. For instance, if a learner acquires the information that they need to achieve the learning outcomes of the course by reading a book, would using an oral presentation to assess their understanding of the book and its contents be appropriate?

It is perfectly conceivable that it is appropriate. However, consider this:

- imagine that a learner is asked to articulate their understanding of the book or a chapter in the book as part of a presentation to a class (formative assessment)
- following this they would then be assessed on their understanding in a separate oral examination (summative assessment).

In this process, the link between how the learner will be assessed and how they learned and demonstrated that learning is more closely aligned. Further, within employment is it more likely that the learner will be required to demonstrate their understanding using verbal skills or written skills? The answer to this question may also determine if changing the assessment method to a written exam is appropriate.

It is important to remember that it is not suggested that all current methods of assessment are inappropriate. A learner learning to write an essay at A-level is acquiring an important skill. Whilst essay writing may not be required for employment it will more than likely be required for assessments at university, should they move onto a university course. Further, the ability to communicate ideas and thoughts in writing is an important skill in employment, such as writing an email.

3 What is innovative assessment and why is it useful?

Figure 4 presents the skills and competencies a learner could demonstrate alongside innovative assessment ideas that could be used to develop these skills and also help the learner develop knowledge. For example, in the bottom left quadrant, learners can demonstrate their reflection skills by using a reflective log or portfolio of evidence to show how they applied their skills and knowledge to a real world scenario.



Figure 4 Skills, competencies and innovative assessment

For the purposes of this course, the use of innovative assessment is defined as something that enables the learner to transfer knowledge, skills, competencies and dispositions between learning and assessment. The transference between learning and assessment should be, where possible, seamless. The premise behind this approach is to ensure that the learner can see a clear connection between what they are learning and how that learning will be applied in any or all of the following areas:

- the real world
- a work environment
- as they progress onto a higher level of education.

Next, you will look at innovative methods of assessment that apply across a variety of age groups and settings, through three case studies. Each case study builds on the previous. So, case study A relates to the basic use of technology for innovative assessment. Whereas case study C requires a greater level of skill. As you read and engage in the activities think about which of these examples would best suit your professional practice.

3.1 Case study A: pictures and voice

In this case study the teacher is working with children in a primary school setting. The presenter offers examples for use in lessons.

Activity 3 Mobile learning

Allow approximately 20 minutes

Watch the video from the British Council and consider the following questions:

1. In relation to formative assessment, what is the advantage of using pictures on a mobile device rather than pictures in a textbook?
2. What advantage, if any, is provided to the learners if they use their mobile device to record their voices?
3. What are the benefits of using apps?

Video content is not available in this format.

Video 1



Provide your answer...

Comment

An advantage of using pictures to teach language skills in formative assessment with a mobile device is that it allows the learners greater freedom of movement to learn socially because the device is more easily transportable than most textbooks. Additionally, some devices allow for the images to be manipulated i.e. made larger or smaller.

The voice recording app on a mobile device can allow a learner to provide evidence and practise their language skills. They can then play back the recording and compare their approach with an example and review points such as tone, speed and expression.

The purpose of the class is to help learners articulate their ideas using the English language. Therefore, the purpose of the activities is to help children develop a working knowledge of how to communicate in English. The principle of what is being demonstrated in the video – teaching English Language to non-English Speakers – can be applied to other language learning settings such as teaching French or Spanish to English speakers.

How could you use the activities outlined in this case study to teach primary school children elements of French, German or Spanish?

3.2 Case study B: creating assignments

In this case study the educator works at a distance learning institution. The video describes the steps to film a video assessment.

Activity 4 How to film an assessment

Allow approximately 30 minutes

Part 1

Watch the video from Australian online distance education and training provider, OTEN, and consider the following question:

How could you use this example to guide you to facilitate innovative assessment for learners?

Video content is not available in this format.

Video 2



Provide your answer...

Comment

The key aspects of what learners are asked to do can be replicated across a range of ages, from children (with modifications to simplify the task) to adults.

Part 2

You could consider asking a learner to create a video. In it they might demonstrate their ability to apply a skill; or the learner might record themselves having a conversation with another learner in which they explain a topic to them in their own

words. Consider whether this could be used as evidence of understanding. Write your comments in the box below.

Provide your answer...

3.3 Case study C: digital story telling

The presenter for this case study indicates that the assignment is based on the idea of a digital media essay. This is also known as digital storytelling.

Activity 5 Media essay assignment

Allow approximately 20 minutes

Watch the video and consider the following question:

What skills and competencies would the learner demonstrate if they created a digital story or digital essay?

Video content is not available in this format.

Video 3



Provide your answer...

Comment

This example is much more intricate. The case study provides an example of some advanced skills in relation to the creation of work that will be assessed as a summative

assignment. Some of the advantages of a digital story are that it can be used to help learners demonstrate their knowledge of the content of a specific area. Additionally, they can also demonstrate other skills such as their ability to use different pieces of software, managing time and resources, creative thinking and problem-solving skills and communicating verbally.

4 Summary of Week 1

This week you considered the usefulness and importance of innovative assessment techniques. As part of this you were introduced to the idea of curricula that were either constructively aligned or competency based.

Mobile technology provides an opportunity for different types of assessment to be produced. Mobile devices are essentially handheld computers and many learners have direct access to them either as owners of the technology or provided to them by an educator.

Before moving on to Week 2, consider and reflect on the following two questions:

- What ideas have you gathered that you could usefully use in your own professional practice, going forwards?
- What evidence is present in the first week of this course that adopted both constructive and competency-based alignment in a curriculum?

In Week 2, you will look at how to bring innovative assessment to your own professional practice.

Week 2: Aligning innovative assessment to your own environment

Introduction

What are examples of best practice for innovative learning and assessment? How might you use these examples in your own setting for innovative assessment?



This week will build upon the knowledge you gathered regarding competency-based and traditional curriculum learning and assessment in Week 1. It will help you to use this knowledge to think about how you might construct innovative assessments for your learners. There will be a strong focus on learning from examples of best practice. You will also be asked to use mobile technology to address some of the tasks in the rest of the course. This will give you an opportunity to experience using mobile technology in a manner that you might later ask your learners to employ.

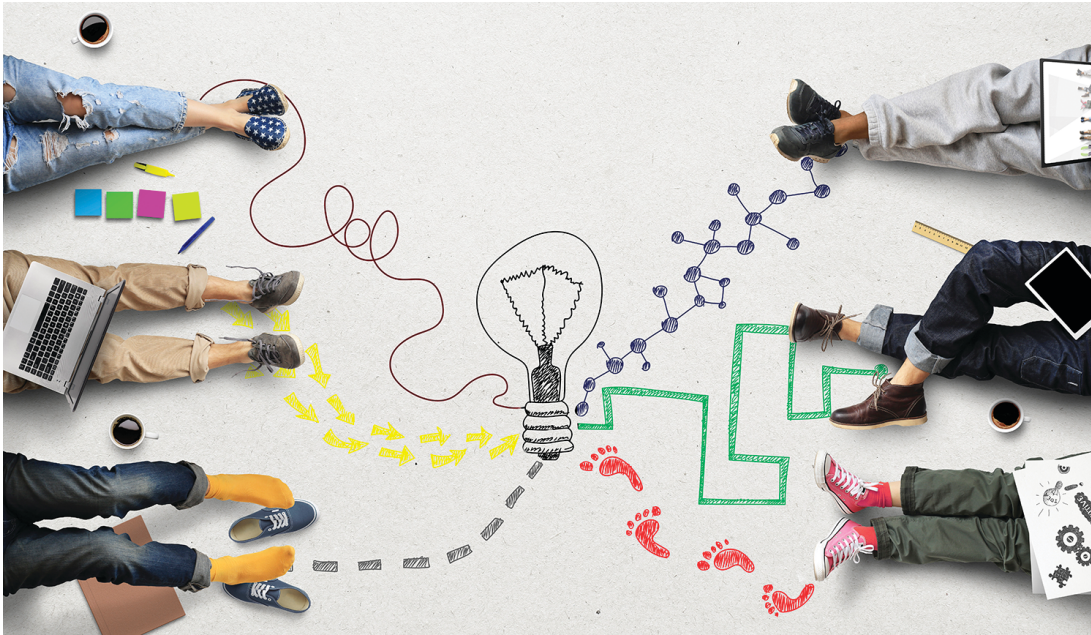
You will examine a number of case studies where innovative approaches to teaching and learning and assessment have been used to enable a wider variety of assessment outputs by learners.

By the end of this week, you should be able to:

- describe examples of best practice in innovative teaching, learning and assessment
- explore how other methods of learning and assessment can be adapted for your own circumstances and professional setting.

1 Creative swiping

'Creative swiping' is a term coined by management expert Tom Peters (1989, p. 228) and refers to the notion that, in management, a professional could borrow an idea from someone else and adapt it for their own use. In the following two activities you will be encouraged to creatively swipe ideas and thus adapt them for your own professional environment.



Activity 1 Swiping best practice

Allow approximately 30 minutes

For this activity you will be reviewing some examples of best practice.

Please access [Innovating Pedagogy 2014: Open University Innovation Report 3](#) (Sharples, et al, 2014). (Open the report in a new tab or window by holding down Ctrl (or Cmd on a Mac) when you click on the link.)

When you have accessed the report choose **two** of the following case studies to review:

- Bring your own devices: Learners use their personal tools to enhance learning in the classroom
- Dynamic assessment: Giving the learner personalised assessment to support learning
- Bricolage: Creative tinkering with resources.

Once you have chosen two case studies make some notes on the following areas. You should make your notes using a mobile device and an appropriate app such as Notes or Word. The answers you provide here will be needed when addressing Activity 4 later this week.

1. Based on the two case studies you have read what ideas could you borrow and apply in your own professional setting where assessment is concerned?
2. If you were to try and adapt these examples of best practice to enable assessment using mobile devices, what would you need to do?

Activity 2 Adapting for mobile

Allow approximately 30 minutes

Many of the examples in this activity do not involve the use of mobile devices. However, you should consider how mobile devices can be used to adapt the ideas for your own use.

Please access [Innovating Pedagogy 2019: Open University Innovation Report 7](#) (Ferguson et al, 2019). (Open the report in a new tab or window by holding down Ctrl (or Cmd on a Mac) when you click on the link.)

When you have accessed the report choose **two** of the following case studies to review:

- Action learning
- Place-based learning
- Learning through wonder

After you have chosen two case studies to review please answer the following questions. Use your mobile device to record your verbal answers to these questions. You may find apps such as Voice Memo or Voice Recorder and Audio Editor useful. Alternatively you might want to use the talk to text function.

1. Based on the two case studies you have read what ideas could you borrow and apply in your own professional setting where assessment is concerned?
2. What would you need to do to make the above assessment idea a reality for your learners?

2 The barriers and enablers to innovative assessment

Activities 1 and 2 asked you to consider examples of best practice. You also thought about what you would need to do if you were to use a mobile device to enact assessment based on what you had learned..



Completing Activities 1 and 2 would have also helped you to identify what can enable innovative assessment and act as barriers to its success. Some of the barriers to success are also some of the enablers. For example, a barrier to using mobile devices for assessment may be that a learner can't download an app on their device because it's not compatible, whereas another learner in the same class is enabled as they can download the app.

Activity 3 Barriers and enablers to assessment

Allow approximately 10 minutes

Below is a list of factors that can enable and prevent innovative assessment; the list is not exhaustive. Identify the factors which prevent a learner submitting an innovative assessment using mobile technology in this list – and any others you can think of – and then think about how you can plan to overcome those challenges. Use your mobile device to record your thoughts in text or voice:

- Learners are not permitted to use mobile devices in class.
- Learners have no experience of using mobile devices in class or for assessment.
- The capability or functionality of the device prevents the learner from creating the desired assessment output.
- The learner can access the school/college/university systems to upload content for an assignment/assessment.

- The learner can access the school/college/university systems to download content for learning.
- The learner doesn't own a mobile device.
- The screen size is too small to be able to use the device for any meaningful assessment purpose.
- There are ethical or child protection or GDPR issues in relation to submitting evidence for assessment.
- There is nowhere for the learner to charge the device if it runs out of battery power.

3 Pedagogical and technical design principles and apps

Hustinx *et al.* (2019) as part of the Tablio project, in an evaluation report titled 'Realising Classroom Differentiation and Inclusion with Tablets', described a number of examples of best practice from classrooms across Europe ranging from primary schools to secondary schools and higher education.



Figure 1 Tablio - tablets in education

The report produced a number of case studies that examined how mobile devices could be used for teaching, learning and innovative assessment. This included formative and summative assessments. Activity 4 will ask you to engage in some specific reading from the report. After completing this course, you might find it helpful to look through the report and identify case studies based on your own area of interest. Some things you may find useful are:

- The pedagogical principles, which were designed to provide guidance for educators on how to introduce different types of learning and assessment with the use of mobile devices.
- The technical design principles that explain the factors you should consider when implementing innovative assessment such as security, the use of different devices with different operating systems or the infrastructure you may need to incorporate innovative assessments into the curriculum.
- A list of applications or apps that can be downloaded and used by learners and educators on mobile devices. These apps can be used for both formative and summative assessment.

Activity 4 Tablio

Allow approximately 40 minutes

Please access the [Tablio report](#). (Open the report in a new tab or window by holding down Ctrl (or Cmd on a Mac) when you click on the link.)

Once you have accessed the report, read the following sections that can be found on pages 28–36 and make notes on a piece of paper relating to the following areas:

- Pedagogical design principles on classroom differentiation and inclusion with tablet
- The SPACIER-principles – Technical design principles on classroom differentiation and inclusion with tablets
- List of apps.

Once you have read the sections, review the notes that you made for this activity as well as Activities 1, 2 and 3 this week. Collate the information and write a summary on a sheet of paper. With your mobile device take a picture of your notes and email the picture to your own personal email account where you can save it for further reference.

4 Summary of Week 2

This week you explored examples of best practice where innovative learning and assessment were concerned. You reviewed how you could use these examples in your own setting for innovative assessment.

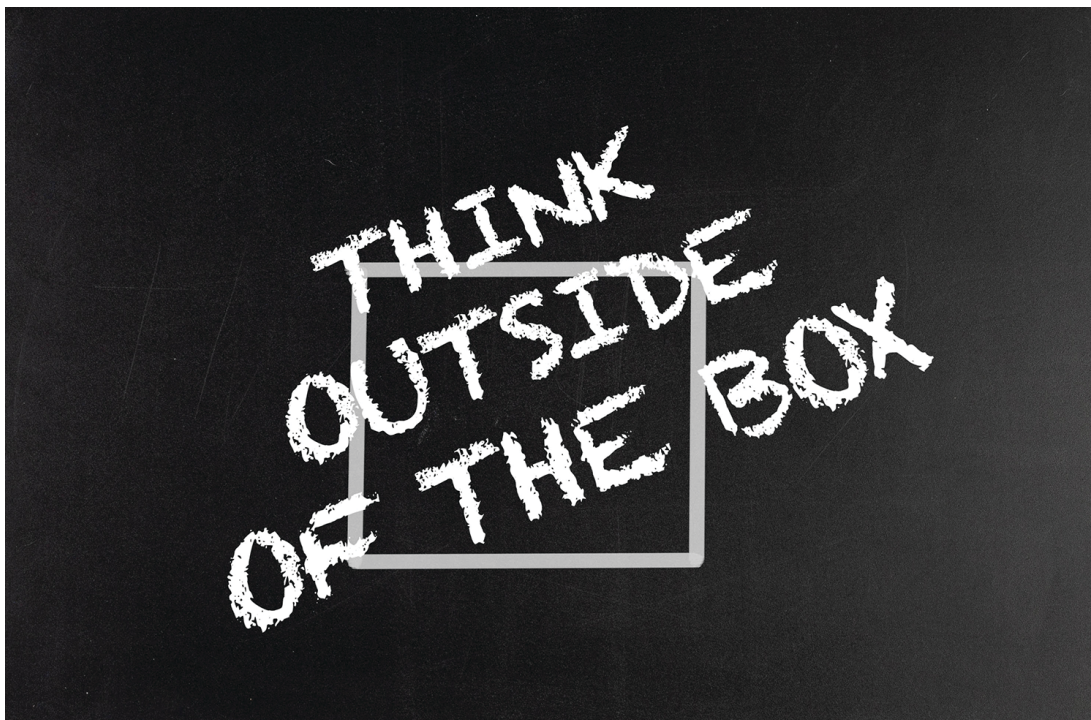
You used creative swiping to think about the barriers and enablers to innovative assessment. You reviewed some pedagogical and technical design principles and apps to create formative and summative assessments.

In Week 3 you will look at how you can take what you have learned from Weeks 1 and 2 and begin to create innovative assessments that suit the needs of your learners and that of the curriculum you teach or train others in.

Week 3: Creating an innovative assessment

Introduction

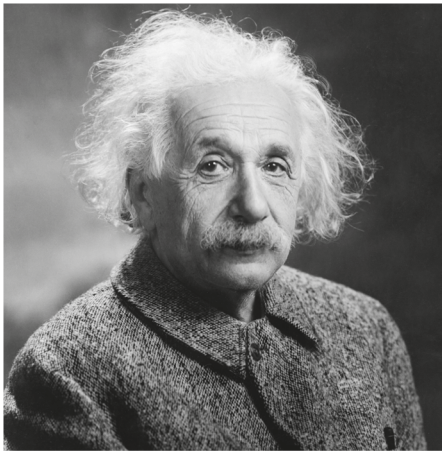
Developing an innovative assessment requires careful thought and visualisation of your ideas. This week you will use what you have learned from Weeks 1 and 2 to help you to begin this process. This week is designed to be quite practical, so you will actually start creating an innovative assessment for your learners.



By the end of this week, you should be able to:

- consider how you can learn from the past and what lessons you can use in your work
- apply useful case studies to help you to create a problem statement; write a context description; and present a recipe for a solution
- begin to create a storyboard for your idea and make your innovative assessment a reality for your learners.

1 Learning from the past



*“Insanity: doing the same thing
over and over again
and expecting different results.”*

Albert Einstein

Figure 1 Albert Einstein’s quote on insanity

When designing a techno-pedagogical innovation, there are two things to avoid: reinventing wheels and repeating mistakes. In other words, you want to learn from relevant examples of past innovations and apply the aggregated knowledge encapsulated in theoretical frameworks. Now you’re ready to take the first step towards devising an innovative assessment. That first step will be to ask:

1. Is there a problem I am currently facing where the normal method of assessment is problematic? (This problem could be that the learners are in a remote location or the planned method of assessment prevent the learners from demonstrating a variety of skills and learning outcomes)
2. What is problematic about how I plan to judge the learning outcomes that the learner will evidence?
3. Would an alternative assessment help the learners to demonstrate a wider variety of skills and/or demonstrate the achievement of learning outcomes?
4. How have other innovators attempted to address similar challenges in similar contexts, and what can I learn from these attempts?

With these questions in mind, now complete Activities 1 and 2.

Activity 1 Case study

Allow approximately 30 minutes

At this stage you will have identified a problem or challenge relating to the assessment of learning outcomes that you want to overcome. The next stage is to research how others have assessed similar topic areas.

Use Google Scholar or search the internet or, if you have access, the academic literature in an e-library for a case study of a techno-pedagogical innovation that might provide possible ways to resolve your challenge. You could also draw upon some of the examples you have seen in Weeks 1 and 2.

Write a summary of the case study you are reviewing. Your summary should use the structure of a design narrative as defined in the STARR template (you can use the template provided):

- [STARR \(Word template\)](#)

Activity 2 Design patterns

Allow approximately 50 minutes

One popular form for capturing compact blocks of design knowledge is design patterns (Goodyear, 2005; Mor and Winters, 2007). A design pattern describes a recurring problem, or design challenge, the characteristics of the context in which it occurs, and a possible method for solving the problem. Christopher Alexander, who conceived design patterns as a design language for architecture and urban planning, states:

Each pattern describes a problem that occurs over and over again in our environment, and then describes the core of the solution to that problem, in such a way that you can use this solution a million times over, without ever doing it the same way twice.

(Alexander *et al.*, 1977)

At its core, a pattern has three parts:

- a problem statement
- a context description
- a recipe for a solution.

Building upon your research from Activity 1 you should have completed the three parts of the design pattern above. The next stage is to move this design pattern onto a written format. Review the resources below to see some examples of patterns and pattern collections and then note down your design pattern in the box below or on a piece of paper. You should open the links in a new tab or window by holding down Ctrl (or Cmd on a Mac) when clicking on it. You can find more examples online.

Resources

Design patterns

- [Examples of design patterns and design principles.](#)
- The [Pedagogical Patterns project](#).
- Pachler *et al.* (2009) include [ten design patterns for formative e-assessment](#).
- Visually appealing examples from other fields are available at [UI Patterns](#) and [Interface Design Patterns](#).

Design principles

- The [Design Principles Database](#) is designed to bridge research and design in a communicable and systematic manner, by providing learning designers with a space to publish, connect, discuss and review design ideas.
- Herrington *et al.* (2009) offer [eleven design principles for mobile learning](#).
- Moreno and Mayer (2000) propose [eight principles for designing multimedia explanations](#). (Note: in this copy of the paper the two shockwave files the paper links to do not appear to be available. However, this does not detract from the paper itself.)

2 Storyboarding

By now you have defined the context and challenge of your project. You are fully equipped to start designing your innovation. Moving your innovative assessment idea from your thoughts to paper requires you to storyboard the idea.



As part of storyboarding, it is important to consider the concept of learning design. Learning design involves providing a context or a background that will support a learning experience. It involves the educator making some clear and deliberate choices about what, when, where and how to teach. It also involves giving thought to things like:

- resources a learner may require for learning
- the amount of time needed for progression
- sequence of activities.

It might also involve considering the types of technology used to enable learning and assessment.

Educators from all backgrounds such as teachers, lecturers, professional trainers or even sports coaches use learning design to structure lessons. Sometimes these are called lesson or coaching plans.

Learning design is an iterative and communicative process. In order to get the best results, you will want to share and synergise your ideas as soon as possible. This includes sharing them with yourself: externalising your ideas and making them visible is necessary for you to be able to critique, refine and even simply remember them. What you need is a representation that allows you to rapidly express the core elements of your design, manipulate them, and share them with your peers. One such representation is called a storyboard.

A storyboard represents a design **from the perspective of the user's experience**, describing the expected flow of activity. Storyboards are common in media production and software design. They have also been adopted and adapted as a tool for learning design.

There is no strict format for storyboards – the key criteria are that they are quick to produce and convey the core features of a design, arranged in the sequence the user will follow. They are not judged on their artistic merits.

Now you will produce storyboards for an innovative assessment idea you have.

Activity 3 Learning design storyboard

Allow approximately 50 minutes

For this task you should create a storyboard of the innovative assessment that you plan to use from the perspective of the user.

- Access the University of Leicester's [storyboard resources](#) (open the resources in a new tab or window by holding down Ctrl (or Cmd on a Mac) when you click on the link) then review the different story boards under the following headings:
 - Storyboard example
 - Storyboard template on www.linoit.com (opens as JPEG)
 - Develop your Storyboard: E-tivity Rubric

Once you have reviewed some of the different types of storyboards, create a template for a storyboard to help you structure your innovative assessment. To help you do this, use a pen and paper or some free apps that you can download onto a mobile device to create a storyboard of your ideas.

Use the learning design storyboard template you have developed to create the storyboard for your innovative assessment. Below is a suggested approach to the process. However, this may vary depending upon the design of the storyboard you have chosen.

1. Divide your course/activity into time units and indicate these across the top.
2. List your learning objectives along the bottom.
3. Use a different colour note to represent the assessment events.
4. Divide the 'content' into a series of discrete topics and write each in a box, using a different colour.
5. Rewrite and move the notes around until you are satisfied the content and sequence would make sense to a learner.
6. Add possible learning activities appropriate to each section using a third colour note.
7. Suggest some resources needed to support the activities.

3 Summary of Week 3

In Week 3 you began to create your own innovative assessment. You began to identify a problem that you thought an innovative assessment could help to overcome. Following this you provided a description of the context under which this problem could be resolved and following that presented a solution.

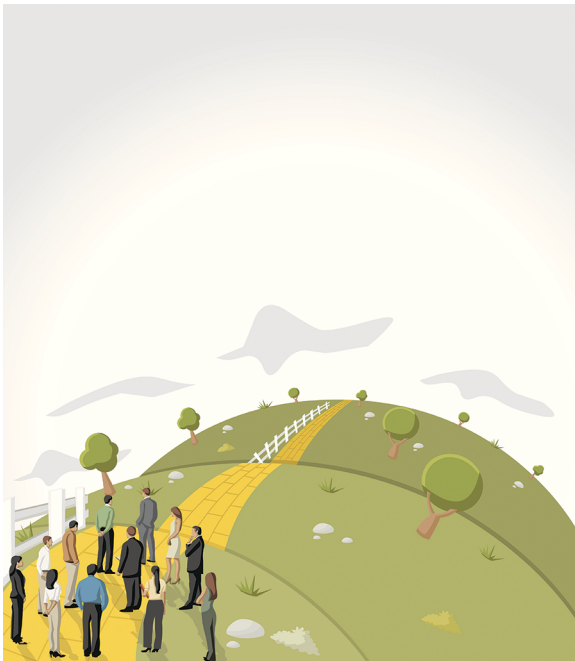
An important aspect of the process of creating an innovative assessment was to consider how this would be experienced by the learner. Therefore, you completed a storyboard of a learner who participated in the activity and considered what it would be like from their perspective.

In Week 4, you will look at aligning the activity you have created to the demands of your curriculum and then evaluating the success of the innovative assessment.

Week 4: Implement and evaluate your innovative assessment

Introduction

Just because you don't follow the yellow brick road does not mean that the road you are on won't lead you to the same destination.



This week you will be looking at different methods of assessment that still lead to the achievement of learning outcomes albeit with the use of different pathways. You will consider how you can align the storyboard activity that you created in Week 3 with an innovative assessment for learners. Remember, the assessment for the learner does not have to be summative – you do not have to use the assessment that you create as a determination of an overall grade. Equally, you should note that your innovative assessment can be used for the assessment of learning where it is appropriate.

By the end of this week, you should be able to:

- align a learner storyboard with an innovative assessment

- align your assessment to the curriculum
- assess where a subject lies in a national qualification framework
- evaluate your idea.

1 Aligning your assessment to the curriculum

Regardless of the subject area, what you are trying to teach your learners will, usually, be guided by clear assessment criteria. Ensuring any assessment you plan is aligned to these assessment criteria is essential to meet the needs of an awarding body.

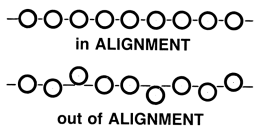


Figure 1 In alignment vs out of alignment

In order to be able to implement and evaluate the usefulness of any innovative assessment you must first consider how the assessment should be aligned with the curriculum that you are teaching. To achieve this, you must follow key elements which are often considered to be tenets when designing, creating and delivering assessments in education. These include:

- reliability (can be used as a reliable source as assessment for learning or assessment of learning)
- consistency (the application of the assessment method is consistent for all learners)
- validity (replicate the skills and knowledge required for employment or articulation onto a higher programme of study)
- authenticity (clearly reflects the skills needed for employment or higher-level study)
- holistic (encompasses a wide variety of skills and knowledge)
- learner ownership (the learners have ownership of the assessment process).

Before you proceed with the final week of the course, review the answers you gave to the questions below in Week 1.

1. Assuming your learners will progress to university, what skills do your learners need to progress in education from now until they graduate?
2. Assuming your learners may leave the education system and not attend university, what skills will all the learners need to progress into employment?
3. Assuming your learners will progress to university, what skills do your learners need to progress into employment after they graduate?

Display of content entered previously

As stated earlier, a key aspect in taking your idea of innovative assessment forward and determining its worth for a learner is to consider how the assessment can contribute towards the achievement of learning outcomes in the subject curriculum that you are

teaching. Each curriculum and subject are different with different learning outcomes and skills that learners are required to demonstrate.

It is not just a matter of the learner demonstrating knowledge and understanding. Other areas are also assessed including cognitive skills, such as integrating evidence to support an answer; or practical skills such as demonstrating an awareness of health and safety in an environment in which they may be working. They may also be required to demonstrate key skills such as their ability to interpret numerical information or use technology to access information sources.

In order to understand how your idea for assessment can be integrated into the curriculum you must consider the learning outcomes that you're trying to achieve. Again, learning outcomes will differ between different subjects. Learning outcomes that you would like your learners to achieve will strongly influence what you will ask them to do in relation to delivering an innovative assessment.

2 National qualification frameworks

A further aspect for consideration is where a subject lies in any national or regional qualification framework (NQF). For the United Kingdom – and depending on the region of the UK – the levels may have different numbers. It's important to know at what level you are providing education on the NQF because it can affect what learners are required to know and demonstrate as part of an assessment. Levels one and two focus on qualifications that are at GCSE level; level three focuses on skills equivalent to that of an A-level, and levels four, five and six relate to university or higher education.

Figure 2 presents an example of an NQF. This outlines how different qualifications are categorised. This will change depending on which country you reside in and sometimes what region of a country you are in.

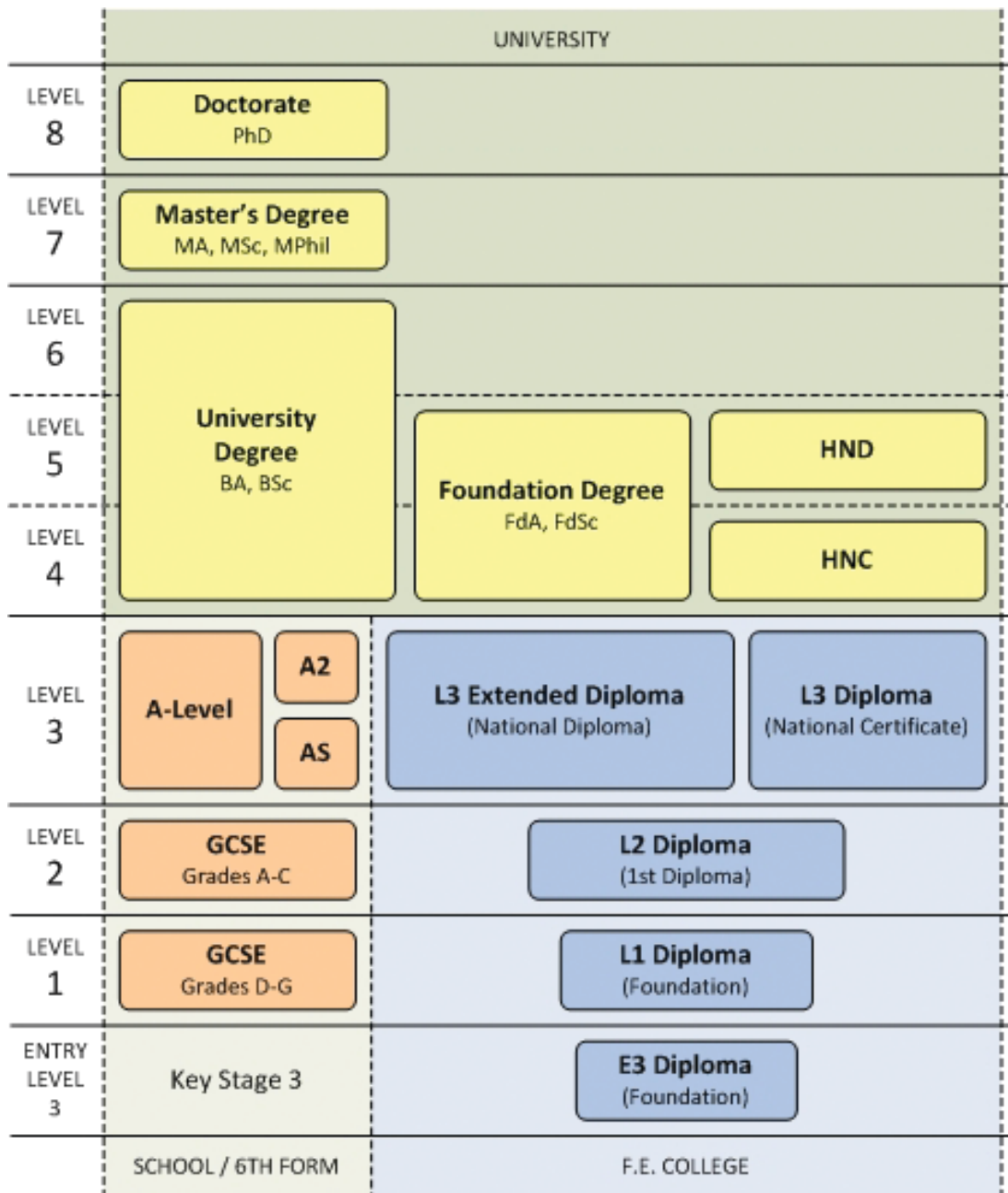


Figure 2 National qualification framework

You will now look at three different subjects from different areas of the United Kingdom National Qualification Framework (NQF). These are listed in Table 1. As part of the UK NQF, innovation solutions have been offered to overcome the challenges associated with learning outside the classroom or away from the education environment.

These examples are taken from real assessments. The assessments provided are perfectly adequate and clearly meet the standards expected. However, you are being asked to consider alternative ways of delivering these that would still achieve the same outcome. When doing so you must consider the barriers and enablers that exist in your professional setting.

For example, in 2020 the UK experienced lockdown and the closure of schools as a result of the Covid 19 pandemic. Many learners from primary, secondary further and higher education were asked to study from home. As a result, many education professionals

were required to alter (to a greater or lesser extent) how they taught and assessed learners' work.

Table 1 An example of how different subject areas on the NQF could have innovative assessments

Level on the NQF	Subject	Provider	Product	Question	Format	Alternative A	Alternative B
2	Biology	Pearson Edexcel International GCSE (Pearson BTEC, 2016)	Exam	Learners are asked to 'describe how food passes from the mouth to the stomach'	Written answer	Create a one-slide PowerPoint presentation where the learner narrates the answer to the question.	Working in groups of three, learners are invited to write a short exam paper based on questions they could receive regarding the digestive system. Learners then administer their own exam to the rest of the class and provide feedback in a question-and-answer session afterwards.
3	National Extended Certificate In Health And Social Care Unit 12: Supporting Individuals with Additional Needs	Pearson BTEC (Pearson Edexcel, 2020)	Report	Learners are asked to write a report that demonstrates current practices and procedures for providing care for children and adults with additional needs, including the support given to overcome challenges to daily living.	Typed answer	Considering ethics and child protection and GDPR issues: the learner could create a five-minute digital story that explains how they witnessed and understood these ideas in their work experience.	The learners create an instructive PowerPoint presentation that can be used to teach learners who have no knowledge of the subject 'current practices and procedures for providing care for children and adults with additional needs, including the support given to overcome

							challenges to daily living'.
5	Sport and exercise psychology	The Open University (The Open University, 2020)	Reflective account	Learners are asked to identify a situation when you experienced stress, arousal or anxiety in a sporting or other activity setting. Write an analysis of your experience using perspectives from what you have learned on the module.	Typed answer	Learner uses their mobile device to record their voice delivering a verbalised reflective account and submit a separate reference list if needed to substantiate any resources used.	Considering ethics and child protection and GDPR issues: Using a mobile device, the learner and a reflective friend engage in a short conversation about the learner's experience of stress and arousal or anxiety in a sport setting

Looking at Table 1 you can see that in the first example, a GCSE biology learner would have originally been asked to complete an exam where one of the questions related to the process of digestion as food passes from the mouth to the stomach. A written answer was required as part of the exam. Many exams were cancelled as a result of the Covid 19 pandemic. Therefore, some of the assessments were not completed. However, as a formative assessment and as a way for preparation for future exams, educators could ask a learner to produce a one-slide presentation with the learner narrating the answer over a 20 or 30 second period. This would also help the learner to demonstrate that they can:

- verbalise their thoughts
- use computer technology
- organise their time and resources
- create images or access images for use in learning.

These are just some of the skills and knowledge the learner would have demonstrated. Take a look at Table 1 again and consider the alternative assessments provided. It is worth remembering that even if the Covid 19 pandemic was not present many of these activities and their completion would still be relevant to the curriculum.

In some cases, but not all, educators can have an element of control where the creation of an assessment or summative purposes are concerned. For instance, in the second and third examples from Table 1 the educator will have more autonomy when choosing the type of assignment that the learner should submit.

In the next activity you will consider how much the innovative assessment you have planned could meet the requirements of an awarding body.

Activity 1 Using the storyboard

Allow approximately 30 minutes

Look back at the [storyboard activity](#) that you created in Week 3. Consider the following questions:

1. Your manager approaches you and asks you to explain how the innovative activity you created in Week 3 is aligned to the curriculum and how this helps the learners to achieve the learning outcomes so that they can gain the qualification. What answer do you provide to your manager's question?
2. Your manager then asks you if there is a way this assessment could be done if the learners weren't in school, the training facility or campus. Using the case studies and knowledge you gathered from Week 3 including the apps, explain to your manager how this could be done

Provide your answer...

3 Evaluating the idea

The evaluation of an innovative assessment can only really take place after it has been delivered. It is at this point when an educator can determine whether the assessment helped the learners to more clearly demonstrate their knowledge and understanding, as well as other skills required for employment and success in society.

To help improve the process and evaluate the assessment more clearly it is advisable to:

- Ask an observer to compare an older method of assessment with the new method and consider the positives and negatives for both the teacher and the learner.
- Ask an internal *and* an external assessor to review your new innovative assessment and consider if your new approach meets the key learning outcomes of the curriculum.
- Engage your learners in a discussion surrounding the assessment and its use. When having this discussion, it is important to remember that you are the professional and ultimately the final decision is yours. However, achieving some level of buy-in from your learners through an element of negotiated learning and assessment allows them to take greater ownership.
- Ask learners to rate their understanding on a scale of 1 to 10 about the topic, where one is very little understanding and 10 is substantial understanding. Ask them to rate their understanding of the topic again after they have completed the assessment. Hopefully, this should be an increase in the level of understanding.
- You may also want to ask the learners to provide a short account of what they have learned from the assessment and how it has benefited them and what could be done to help them further understand the topic. This could be incorporated into the assessment as part of asking the learners to actively reflect upon their learning.

When you receive feedback it is useful to have considered what to do with it.

Positive feedback

It can be very easy to simply accept positive feedback particularly when it is about something you have created, e.g. an innovative assessment. However, when receiving the feedback, it's worth considering if that feedback is from a reliable source. For example, if the feedback was from a learner did they actually complete the assessment? Or, if the feedback is from a peer is it possible the feedback is positive because you have asked a colleague about an assessment in a topic they are not familiar with?

Collate all the feedback you receive and try to identify themes. For example, if learners found the assessment useful was it also possibly too easy and didn't help them to develop their skills the way you thought it might have or should have?

Positive feedback can also be useful and reliable and accurate. However, not every learner will have the same experience with your innovative assessment. So, there may be different aspects that learners found useful and it may be worth exploring what specifically they liked.

Use the feedback you have gathered to inform the assessment for its reuse in another class or in the next academic year. Keep seeking feedback and aim to perfect the assessment.

Developmental feedback

Similarly to positive feedback, developmental feedback comes with caveats. It can be easy to take negative feedback 'on the chin' and make the changes suggested. But, sometimes the changes suggested can fundamentally alter the premise behind the assessment. When receiving developmental feedback consider the source. Is it a learner who didn't like the assessment because it wasn't easy enough and the assessment was too much hard work? In such instances it's worth asking the learner, whilst the assessment was challenging what did they learn? Similarly, a colleague may see the assessment as not practical or it may be viewed as outside their comfort zone.

Developmental feedback when used alongside positive feedback can help you to paint a picture of how the assessment was received and how useful the learners found it. Sharing your findings with other interested parties such as internal or external verifiers or employers also enables you to use feedback from a variety of areas to make the assessment a reflection of a competency and constructively aligned curriculum.

4 Summary of Week 4

Now you have completed Week 4 you will have built upon the idea you developed within Week 3 in relation to an innovative assessment. When implementing the innovative assessment you have created, you will have considered how that assessment will help the learner to demonstrate their knowledge as well as key skills and competencies required for further or higher education or employment.

As part of this week you also considered using the innovative assessment you have designed and ensuring that it meets the needs of the curriculum and subject area that you teach. This involved ensuring that the assessment was reliable, valid, authentic and holistic. You also explored how you might evaluate the usefulness of innovative assessment before implementation and after students have completed the assessment and you have obtained their feedback on its usefulness.

Course summary

Throughout this course you have been introduced to the idea of a competency-based curriculum versus a constructively aligned curriculum. You explored similarities and differences between the two different types of curriculum. You considered not only the acquisition of knowledge in assessments but also how skills a learner needs to demonstrate extend beyond the classroom and into the workplace and higher levels of education. You reviewed different examples of innovative assessments from different curriculum areas. You explored examples of best practice for innovative assessments and reflected on some of the barriers and enablers to innovative assessment. You considered pedagogical and technological design principles that could be applied to innovative assessment.

You then began to use some of the knowledge that you had gathered to plan for implementing an innovative assessment, looking at the concept of learning design and the use of storyboards. As you completed the course, you considered how you could take an innovative assessment that you had designed and ensure that it was aligned to the requirements of the curriculum and subject area where you are an educator. You finished by looking at how, after implementing the innovative assessment, you could evaluate its effectiveness from a variety of different sources.

We hope that you have enjoyed this process and what you have learned will enable you to start to implement or develop your own ideas on innovative assessment in your practice.

Your answers to all the activities in which you responded to in the text boxes are provided by clicking on 'Download your answers for the documents on this course', available in the sidebar of this course.

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Tables

Table 1: from: World Economic Forum (2016). *The 10 skills you need to thrive in the fourth industrial evolution*.

<https://www.weforum.org/agenda/2016/01/the-10-skills-you-need-to-thrive-in-the-fourth-industrial-revolution/>

Audio Visual

Video 1: Teaching English: Mobile Learning.

https://www.youtube.com/watch?v=uYRxpofPCFU&feature=emb_title. Courtesy: British Council/Teaching English www.teachingenglish.org.uk <https://www.britishcouncil.org/>

Video 2: TAFE Digital How to film an Assessment TAFE Digital Western Sydney Institute https://www.youtube.com/watch?v=_qduLo-_cDo

Video 3: courtesy: CEHD <https://www.cehd.umn.edu/>
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