Cambridge Assessment International Education

Cambridge Professional Development

Module 1 Guide

Cambridge International Certificate in Teaching with Digital Technologies 6224

This guide is for centres using digital portfolios for collation of evidence and submission of portfolios.

Cambridge Pathway

For examination in 2020, 2021 and 2022 Version 3

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Cambridge International Certificate in Teaching with Digital Technologies

Module 1 Guide

The main aim of this guide is to exemplify standards for the Cambridge International Certificate in Teaching with Digital Technologies (6224)

This document contains guidance on:

- each learning outcome and related key questions
- summative assessment requirements
- how the assessment criteria are used by an examiner to grade a candidate's portfolio of evidence.

This guide must be read in conjunction with the syllabus.

Learning outcomes

For ease of reference the format below has been used for each learning outcome.

- Key words: These key words will help you identify the focus of the learning outcome.
- Principal Examiner comments: Here you will find clarification as to what candidates are expected to know and/or do to meet this learning outcome.
- Key questions: Provide the indicative knowledge and skills content for each learning outcome.
- Guidance for summative assessment: Brief guidance is provided on what candidates must submit for their evidence of practice, learning or reflection.
- Recommended resources: Recommended text and web-based resources are listed.

Assessment criteria

For each assessment criterion the following format has been used.

- Key skills: This will help you understand the key skills required for each assessment criterion.
- Principal Examiner comments: Here you will find clarification as to how candidates will be assessed and what examiners are looking for.

This guide is interactive

You can navigate through this document using the contents bar on each page. To return to this page, just click on 'Introduction'.

Learning outcomes – Unit 1

Understanding the potential of digital technologies to support learning and teaching

Learning outcome A: Analyse how a range of locally available digital technologies support existing, or allow new, learning activities.

Key words: active learning • metacognition • software • hardware • analysis • local

To meet this learning outcome, candidates need to identify digital technologies that already exist within their local area (e.g. primary school, college, university, library, other school in the area, etc.), and explore how these technologies are being used to support learning. Candidates need to link the impact of the technology used on the learning gained by the students.

As well as their own context, candidates are expected to identify digital technologies from at least one other context. For example, if candidates work in a high school that is on the same site as a primary school, the primary school would be indicative of another context.

The audit should enable Examiners to see what digital technologies are available locally and how they are used.

Candidates should approach this as a small research project. This will form the basis of their developing understanding of the digital technologies available to them and how they are used to enhance learning.

Guidance for summative assessment

Evidence of learning

1 Analyse the ways that locally available digital technologies are used to support teaching and promote learning.

3 Analyse the observed lesson and the discussion with your mentor, exploring how the key teaching and learning activities using digital technologies support teaching and learning .

Recommended resources

Selwyn,N (2011) *Education and Technology: Key Issues and Debates* Continuum

Cambridge Assessment International Education (2017) Education Brief: Digital Technologies in the Classroom https://www.cambridgeinternational.org/Images/271191-digital-technologies-in-the-classroom.pdf (Accessed 16/03/2019)

Cambridge Assessment International Education (2017) Digital technologies in the Classroom https://www.cambridgeinternational.org/Images/271191-digital-technologies-in-the-classroom.pdf (Accessed 16 March 2019)

Web-based resources

Cambridge Assessment International Education (2017). *Education Brief: Active learning*

http://www.cambridgeinternational.org/images/271174-active-learning.pdf [Accessed 16 March 2019]

Cambridge Assessment International Education (2017). *Getting started with Active Learning*

https://www.cambridge-community.org.uk/professional-development/gswal/index.html [Accessed 16 March 2019]

Cambridge Assessment International Education (2017). *Education Brief: Metacognition*

https://www.cambridgeinternational.org/Images/272307-metacognition.pdf [Accessed 16 March 2019]

Cambridge Assessment International Education (2017). *Getting started with Metacognition*

https://cambridge-community.org.uk/professional-development/gswmeta/index.html [Accessed 16 March 2019]

Cleaver, S. (2014). *Technology in the classroom: Helpful or harmful?* [online]. Available at:

https://gb.education.com/magazine/article/effective-technology-teaching-child/ [Accessed 17 July 2017].

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Learning outcomes – Unit 1

Understanding the potential of digital technologies to support learning and teaching

Learning outcome A: Key questions

KQ1 What do we mean by teaching and learning with digital technologies?

In sharing their understanding it is anticipated that, despite any similarities expressed, each candidate will have their own 'unique' understanding of the concept, which should be noted.

In recent years reference to 'digital technology in the classroom' (DTC) can be taken to mean digital processing systems that encourage active learning, knowledge construction, inquiry, and exploration on the part of the learners, and which allow for remote communication as well as data sharing to take place between teachers and/or learners in different physical classroom locations.

KQ2 What is the difference between hardware and software?

Candidates need to be familiar with the differnce between these two approaches to teaching with digital technologies. This can be consisely articulated to ensure early thinking on this topic is based on a secure understanding.

KQ3 Who uses the locally available digital technologies?

By exploring who uses digital technologies and what are available locally candidates will be exposed to new ideas and new ways of working. This will help them to understand what is available and how best to use it.

KQ4 How are the locally available digital technologies used to support teaching and promote learning?

It is important that candidates link the digital technologies used to teaching and learning. They should not focus on the functionality of the technology but on how the technology supports teaching and learning. This piece of writing needs to be evaluative and not descriptive.

KQ5 How often are the locally available digital technologies used for teaching and learning?

This is an exploratory question as candidates will invetigate the use of digital technologies in their local area.

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Learning outcomes – Unit 1

Understanding the potential of digital technologies to support learning and teaching

Learning outcome B: With reference to relevant concepts, principles and theories, explore how and why digital technologies can be used within their own practice to support teaching and promote learning.

Key words: motivation • extrinsic and intrinsic motivation • collaborative learning • constructivism

To meet this learning outcome, you should encourage candidates to explain, using relevant concepts, principles and theories, how and why available digital technologies can support teaching and promote learning in their own practice and why it is important that digital technologies are used. Candidates should choose their own class(es) to explore the possibilities of using digital technologies to support teaching and promote learning and draw on their own learning, referring to concepts, principles and theories that are relevant to teaching using digital technologies as well as general learning concepts, theories and principles. This learning outcome does not focus on what is already happening. Candidates may feel that digital technologies could be used in other curriculum areas to support teaching and promote learning.

Candidates are expected to introduce some of their reading to support points made. Reference to a minimum of two relevant theories and concepts will need to be made. This needs to link to the candidates' exploration of the potential use of digital technologies in their school context.

Candidates should link their discussion to their comments made for learning outcome A.

Guidance for summative assessment

Evidence of learning

2 Explain how students can benefit from the specific opportunities that digital technologies allow.

Recommended resources

Petty, G. (2004). *Teaching Today: A Practical Guide*. 3rd Ed. Nelson Thornes Ltd.

Picardo, J. (2017) Using Technology in the Classroom. Bloomsbury CPD Library

Web-based resources

Hobgood and Ormsby (2011) '*Inclusion in the 21st-century classroom: Differentiating with technology*.' [Online]

http://web.archive.org/web/20180125110137/http://www.learnnc.org/lp/editions/every-learner/6776
[Accessed 17 July 2018].

Constructivism as a paradigm for teaching and learning
http://www.thirteen.org/edonline/concept2class/constructivism
[Accessed 17 July 2018].

Puentedura, R. (2010) '*The SAMR Model*.' [Online]
http://hippasus.com/resources/sweden2010/SAMR_TPCK_IntroToAdvanc edPractice.pdf
[Accessed 17 July 2018].

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Learning outcomes – Unit 1

Understanding the potential of digital technologies to support learning and teaching

Learning outcome B: Key questions

KQ1 Why is it important to use digital technologies for teaching and learning in your practice?

Candidates should base their discussion on key theories of teaching and learning with digital technologies.The candidate needs to be exposed to a wide range of material so that they can select those which relate to their context.

KQ2 Which concepts, principles and theories apply to the use of digital technologies for teaching and learning in your practice?

Selecting key concepts and theories is an importatant stage as candidates will begin to deepen their understanding of key theories and concepts. By selecting from a range of theories the candidate will have critically evaluated the theories they have come into contact with.

KQ3 Which learning objectives are digital technologies particularly useful for?

Candidates should provide examples from their classroom practice where they have used digital technologies to support students meeting learning objectives.

KQ4 How have you already used digital technologies for teaching?

Candidates should reflect on their classroom experiences as a teacher to identify the teaching methods and learning activities they have used digital technologies for.

KQ5 How have your students already used digital technologies for learning?

Candidates should reflect and evidence their current use of digital technologies. At this early stage it is not a requirement that digital technologies is embedded within their teaching. It is to provide a starting point for their learning.

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Learning outcomes – Unit 1

Understanding the potential of digital technologies to support learning and teaching

Learning outcome C: Within their own school context, investigate how learning activities using digital technologies allow students to develop twenty-first-century skills.

Key words: 21st century skills • collaborative learning • learner centred • assessment for learning

To meet this learning outcome, candidates need to choose at least one 21st Century skill. For example, collaborative learning. There is no need for candidates to consider more than one, but they may do so if they wish. However, they should limit this to no more than three skills. Candidates should identify at least two learning activities using digital technologies. For example, one of these digital technologies and related learning activity might allow learners to work collaboratively and one might allow learners to take responsibility for their own learning, or both digital technologies and relevant learning activities might allow learners to work collaboratively.

This learning outcome focuses on what is being used in practice currently. Candidates are expected to introduce some of their reading to support points made. Their sources will need to be referenced correctly.

It is expected that the candidate use the experience of observing the experienced colleague to help in their identification and this will need to be referred to in their writing.

Guidance for summative assessment

Evidence of learning

3 Analyse the observed lesson and the discussion with your mentor, exploring how the key teaching and learning activities using digital technologies support teaching and learning .

Recommended resources

Atherton, P. (2018) 50 Ways to Use Technology Enhanced Learning in the Classroom: Practical strategies for teaching. Learning Matters.

Web-based resources

Neff (n.d.) 'Learning theories website.' [Online] https://jan.ucc.nau.edu/lsn/educator/edtech/learningtheorieswebsite/vygotsky.htm [Accessed 12 Jul. 18]

The future of learning [online] http://unesdoc.unesco.org/images/0024/002431/243126e.pdf [Accessed 12 July 18]

Educational technology and mobile learning www.educatorstechnology.com/ [Accessed 19 June 18]

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Learning outcomes – Unit 1

Understanding the potential of digital technologies to support learning and teaching

Learning outcome C: Key questions

KQ1 What do we mean by twenty-first-century skills?

The term twenty-first-century skills needs defining for candidates to move forward with their understanding. There are varying documents which define these. Unesco has produced definiteive statements which could be a good starting point.

KQ2 Which skills can digital technologies help develop?

Once there is an established understanding candidates can explore which of these skills digital technologies will be most suited to developing.

KQ3 Which specific type of digital tool can help develop a particular skill?

Here candidates need to move from general statements on the use of digital technology, to linking spcific tools which can be used to develop specific skills.

KQ4 How are you monitoring the development of students' skills?

Candidates need to link to assessment for learning strategies, but to define that they are looking at skill development not knowledge and understanding. If candidates have responded to the previous key questions then this will be a natural next step in their learning.

KQ5 What evidence is there that digital technologies promote learning?

A first exploration regarding measurig impact of teaching and learning strategies is asked for here. This does not need to be well defined. However candidates need to be encouraged to look at how and where they will gain evidence from.

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Learning outcomes – Unit 1

Understanding the potential of digital technologies to support learning and teaching

Learning outcome D: Evaluate digital technologies to support teaching and promote learning.

Key words: evaluation • learning aims and learning objectives • reflection

To meet this learning outcome, at least three digital technologies should be evaluated. Candidates should not only evaluate digital technologies for teaching, but should also evaluate the effectiveness of digital technologies for learning.

They should explain whether the use of a digital technology was effective or not at supporting learning and/or achieving set learning objectives and give reasons to justify their evaluation.

Candidates will refer to current concepts, theories and principles in using digital technologies in teaching and learning.

The candidate needs to explain how the digital technologies were used in their classroom practice and in what ways each digital technology helped learners to meet learning objectives.

It is expected that the candidate use the experience of observing the experienced teacher to help with their evaluations and this will need referring to in their writing.

Guidance for summative assessment

Evidence of practice

- a completed ***Module 1: Unit 1 Observation Visit Form***.
- a completed ***Module 1: Unit 1 Review of Locally available digital technologies***.
- a copy of the lesson plan for the lesson they observed.

Candidates will need to observe an experienced colleague using digital technologies. They will discuss the observed lesson with their mentor which will support their reflections.

Evidence of reflection

1 Evaluate your findings from Unit 1, exploring the key features that make digital technologies effective for teaching and learning.

Using the outcomes from the observation of the experienced teacher's lesson and their experiences as a teacher, candidates must now analyse the key features of what they think make an effective lesson using digital technologies. Because this is an analysis, views and opinions expressed must be supported with relevant theory, concepts or principles. It is recommended that at least three but no more than five key features are identified and analysed.

2 Evaluate the impact your new learning and experiences from Unit 1 have had on your practice and how this will help you to prepare for Unit 2.

After reflecting on their new learning and experiences from Unit 1 candidates must identify what they regard as the significant new learning recently developed. In doing so they must explain the impact their new learning has had on their classroom practice as they prepare for Unit 2. It is expected that the concept of active learning will strongly feature as part of the evaluation.

Recommended resources

Leask and Pachler (2013) *Learning to Teach using ICT in the Secondary School: A companion to school experience* Routledge

Pollard, A. (2008). *Readings for Reflective Teaching*. London: Continuum.c.

Web-based resources

Cambridge Assessment International Education (2017). *Getting started with Mentoring* https://www.cambridge-community.org.uk/professional-development/gswment/index.html [Accessed 19 Jun. 18

Cambridge Assessment International Education 2017). *Getting started with Reflective Practice*. https://www.cambridge-community.org.uk/professional-development/gswrp/index.html [Accessed 19 Jun. 18]

Benefits of technology in the classroom https://www.teachhub.com/benefits-technology-classroom [Accessed 16 March 2019]

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Learning outcomes – Unit 1

Understanding the potential of digital technologies to support learning and teaching

Learning outcome D: Key questions

KQ1 What do we mean by 'evaluate digital technologies to support teaching and promote learning'?

Candidates should begin by initially explaining their understanding of evaluation. This may include a discussion on what evaluation is as well as the use of digital technologies in supportng teaching and promoting learning.

KQ2 What makes a lesson using digital technologies effective?

Candidates need to link their reflection to the lesson they observed , their audit of locally used technology and their dicussion with their mentor.

KQ3 How might the digital technologies used to support teaching be different from those that promote learning?

It is important that candidates demonstrate their understanding of the connection and disconnect between technology which helps the teacher deliver and facilitate leanring and technology which supports and promotes learning.

KQ4 How do you choose which digital technology to use for which purpose?

It is important that candidates link theory to practice when exploring this key question. The candidates may have criteria already in place on which they base their choice. This will help them reflect whether these criteria are valuable in supporting teaching and learning.

KQ5 How might lessons using digital technologies differ from those that do not?

Candidates should reflect on their recent classroom experiences, and on the learning session taught by an experienced teacher they observed with their mentor, to identify the key features of what they think makes an effective lesson. Each key feature identified should be supported with a brief explanation of why it was effective. Candidates should also be encouraged to support their explanations with references to relevant theories or concepts of teaching and learning. with digital technologies.

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Learning outcomes – Unit 2

Teaching a lesson with digital technologies

Learning outcome E: Plan, prepare and teach a lesson that uses one or more digital technologies to promote learnin.

Key words: lesson plan • learning aim • learning objectives • learning outcomes • assessment for learning • formative assessment

To meet this learning outcome, it should be clear from the lesson plan and the evidence of learning that candidates plan to use at least one digital technology to promote students' learning. They should identify at least one specific learning objective from their curriculum and consider how they can use a digital technology to support the achievement of this learning objective for all learners. The chosen learning objective might be one that they have previously taught without using digital technology so that a comparison can be made.

It is expected that candidates explain why they have chosen the specific digital technology and the outcome they would like to achieve. It is important that the candidate does not merely describe the activity. Candidates need to put forward a clear rationale which can be backed up by their reading.

Guidance for summative assessment

Evidence of practice

- A completed ***Module 1: Unit 2 Lesson Plan***.

The lesson plan must have clear aims and objectives that make the purpose of the lesson apparent. It must also have a coherent structure with a clear beginning, middle section and conclusion. The beginning of the lesson should provide some evidence of how links are made with existing learning to develop new learning. The lesson plan should also evidence how the topic being taught is logically sequenced using a variety of teaching methods, student learning activities and formative assessment methods. The learning materials and resources used to support teaching and learning must also be evidenced. Immediately after the lesson has finished candidates should make brief comments, in the box provided within the plan, on what they thought went well in the lesson and what aspects require further improvement. All sections of the lesson plan must be completed. The digital technology used in the lesson needs to be evidenced clearly.

Evidence of learning

2 Explain how you planned for your lesson to be engaging, motivating and inclusive.

Candidates must initially give reasons why a lesson plan must be engaging, motivating and inclusive. They should then explain how they structured the lesson to ensure it was coherent e.g. at the start of the lesson the new learning was introduced by making links with students' existing learning; in the middle section new learning was developed and opportunities provided for it to be applied; in the conclusion the students' learning was reviewed, important learning points reinforced and checks made to make sure all the learning aims and objectives have been achieved. Wherever appropriate the explanation should be supported with relevant theory and clear links to the use of the chosen digital technology.

Recommended resources

Hattie, J (2011) *Visible Learning for Teachers: Maximising impact on Learning* Routledge

Jarvis, M. (2014). Brilliant Ideas for Using ICT in the Classroom: A very practical guide for teachers and lecturers. Routledge

Petty, G. (2004). *Teaching Today: A Practical Guide*, 3rd Edition. Nelson Thornes Ltd.

Web-based resources

Churhes, A. (2008). http://www.ccconline.org/wp-content/uploads/2013/11/Churches_2008_DgitalBloomsTaxonomyGuide.pdf (Accessed 12 Jul. 18)

Cambridge Assessment International Education (2017). *Getting started with Assessment for Learning*

https://www.cambridge-community.org.uk/professional-development/gswfl/index.html [Accessed 19 Jun. 18]

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Learning outcome E: Key questions

KQ1 What are the key aspects to consider when designing a lesson that uses digital technologies to promote learning?

Candidates should discuss why lesson planning is an important part of a teacher's role, for example, lesson plans:

- enable a teacher to think about the type of learning they wish to occur in a lesson and how dugital technologies can support this.
- ensure all required resources are prepared and available and the required technologies are available and in working order.
- provide a record of the teaching and learning strategies that students responded to positively and whether any are being over or under used

The list is not exhaustive but indicates some of the outcomes that may result from the discussion.

KQ2 How do learning objectives in a lesson that uses digital technologies differ from those in lessons that do not use digital technologies?

Candidates should discuss how learning objectives in lessons using digital technologies might be different from those where digital technologies are not used. For example, learning objectives might be more focused on skill development rather than the acquisition of knowledge.

KQ3 Does the lesson have clear learning objectives relating specifically to the use of digital technologies to promote learning?

Candidates should discuss and determine why a lesson plan must have - clear learning objectives focusing on what students will learn and how the digital technology will help with this. Learning objectives should:

- make the purpose of the lesson very clear
- inform the students of what they must learn
- ensur students participate in a 'spectrum' of learning to extend and challenge their thinking
- informs what learning must be assessed

The list is not exhaustive but indicates some of the outcomes that may result from the discussion.

KQ4 Does the lesson plan include strategies to assess whether learning has taken place?

Candidates must understand why it is important to formatively assess the students' learning at different stages in the lesson, for example:

- **at the beginning of the lesson** – to check students' understanding of previous learning so relevant links can be made to develop the required new learning
- **in the main part of the lesson** – to support and monitor the students' new learning as it is being developed, applied and consolidated
- **at the end of the lesson** – to check if all the learning objectives have been achieved and if there are still any 'gaps' in the students' learning

KQ5 Is it clear in the lesson plan which digital technologies are used for teaching and which are used for learning?

Candidates should review the digital technologies they have chosen and identify how they support teaching and how promote learning. It is important that the candidate is specific and bases their statement on theories of teaching and learning and theories of the use of digital technologies which they explored in Unit 1.

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Learning outcomes – Unit 2

Teaching a lesson with digital technologies

Learning outcome F: Demonstrate how the use of digital technologies can promote active learning and an inclusive learning environment, and how it can engage and motivate students to learn.

Key words: classroom management • facilitated learning • active learning • inclusive learning • engagement • motivation

To meet this learning outcome, it should be clear from the completed Observer Feedback Form and the evidence of reflection that the candidate used active learning strategies to engage and motivate students to learn, and that all students were supported in learning using digital technologies. If technology fails in the planned lesson and candidates cannot use it at all, they should adapt their lesson accordingly, but this would not be the lesson to submit as evidence of teaching with digital technologies. They should plan and teach another lesson, perhaps with a different technology and/or different class and arrange for this to also be observed by their experienced colleague.

Candidates should then reflect on their learning and experiences from Unit 1, and in particular their experience of observing an experienced teacher, to confirm reasons why using active learning and digital technologies motivate students to learn. They must also understand how the selection and use of digital learning resources can have an impact on how effectively students are engaged and motivated to learn. However, teachers need to be aware of how such resources can be used effectively and what are the benefits, barriers and challenges to using it.

Guidance for summative assessment

Evidence of practice

- a completed ***Module 1: Unit 2 Observer Feedback Form***
- samples of student work from the lesson, clearly showing how digital technologies promoted learning.

Pre-observation discussion

The first section must evidence what the candidate wants to develop in their teaching practice regarding the use of digital technologies. The candidate and mentor should agree a minimum of three and a maximum of five intended outcomes, which should include something 'new' the candidate wants to try out in their practice. The intended outcomes should not be too ambitious at this stage of the programme but must focus on the students' learning as well as the candidate's teaching. It's also important to stress that these are the candidate's personal learning outcomes and not the students, which are evidenced in the lesson plan.

The second section identifies the agreed focus for the observation, which must be based on the syllabus learning outcomes E, F and G.

Observation record

Mentors must provide feedback that focuses on the agreed intended learning outcomes and in particular on the teaching method or learning activity that is 'new' to the candidate's practice. The feedback must be analytical and not simply describe what the teacher and the students did in the lesson. A most important part of the feedback will be to establish if all of the students met the intended learning objectives or outcomes and how the digital technologies used enabled this.

Post-observation discussion

The candidate and mentor should preferably meet a short time after the lesson observation so they have both had time to reflect on the lesson. Their discussion should be based on what was agreed in the pre-observation meeting but the context can be widened if thought necessary. The discussion should conclude with agreement on what the candidate should be looking to develop and improve in their practice.

Evidence of learning

1 Explain how you selected and used digital technologies in your lesson.

The explanation must evidence knowledge and understanding of why candidates chose the digitial technologies used in the lesson, and must be supported with reference to appropriate theories, concepts or principles of learning and teaching.

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Learning outcomes – Unit 2

Teaching a lesson with digital technologies

Recommended resources

McKeown, S. and McGlasho, A. (2014). Brilliant Ideas for Using ICT in the Inclusive Classroom. Routledge.

Petty, G. (2004). *Teaching Today: A Practical Guide*. 3rd Ed. Nelson Thornes Ltd.

Hattie, J (2011) *Visitble Learning for Teachers: Maximising impact on Learning*, Routledge

Web-based resources

Cambridge Assessment International Education (2017). G*etting started with Active Learning*

https://www.cambridge-community.org.uk/professional-development/gswal/index.html [Accessed 12 Jul. 18]

Churches, A. (2008).

http://www.ccconline.org/wp-content/uploads/2013/11/Churches_2008_DigitalBloomsTaxonomyGuide.pdf [Accessed 12 July 18]

Cambridge Assessment International Education (2017). G*etting started with Metacognition* https://cambridge-community.org.uk/professional-development/gswmeta/index.html [Accessed 12 July 18]

Petty, G. (2017). Active Learning.

http://geoffpetty.com/for-teachers/active-learning/

Watkins, C. (2008). Learning and teaching with digital technologies. Available at: http://lab.cccb.org/en/learning-and-teaching-with-digital-technologies/[Accessed 16 March 2019].

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Learning outcome F: Key questions

KQ1 What do we mean by an inclusive learning environment?

Candidates need to explore inclusive learning and teaching and how they can facilitate the creation of these environments within their classroom.This exploration needs to be based on their understanding of the challenges, opportunities and barriers digitial technologies can present.

KQ2 What is the difference between inclusive learning and differentiation?

It is important that candidates can write securely on the difference between inclusion and differentiation. This knowledge will support them when deciding on criteria to judge the selection of digital technologies within their lesson planning.

Differentiating the students' learning is an important feature of inclusive learning because the teacher is trying to make sure that all students learn well, despite their many differences. For example, learning can be differentiated by:

- task design - involves setting different tasks for students of different abilities or setting tasks for all students that get progressively harder
- task outcome - all students undertake the same task but a variety of results is expected and acceptable
- pace - the available time is used flexibly in order to meet the students' needs
- formative assessment – carried out on an on-going basis so that teaching can be continuously adjusted according to the students' needs.

The list is not exhaustive but indicates the range of strategies teachers use to differentiate learning.

KQ3 How can the use of digital technologies help promote active learning?

The purpose of using digital technologies is to enhance learning and their use can have a significant impact on the students' learning and achievement. Candidates should review the range of digital technologies they use in their classroom practice and then consider how they are used to:

- arouse student interest and motivate them to learn
- promote student knowledge and understanding
- support diverse student needs
- enliven the learning experience

Teachers need to be aware of how digital resources and technology can be used effectively and what the benefits, barriers and challenges when using digital technologies are.

KQ4 How can the use of digital technologies help motivate learners?

Education research indicates that when students participate in active learning, rather than being passive spectators, their learning is much more effective because they engage and are motived to learn. Chickering and Gameson (1997) emphasise:

"Learning is not a spectator sport. Students do not learn much just sitting in classes listening to teachers, memorising pre-packaged assignments, and spitting out answers. They must talk about what they are learning, write reflectively about it, relate it to past experiences, and apply it to their daily lives. They must make what they learn part of themselves."

Another key factor in creating a climate for active learning is the use of pair or group work, which also provides students with opportunities to talk about what they are learning. Chickering and Gameson (1997) maintain that:

"Learning is enhanced when it is more like a team effort than a solo race. Good learning, like good work, is collaborative and social, not competitive and isolated. Working with others often increases involvement in learning. Sharing one's ideas and responding to others improves thinking and deepens understanding."

Digital technologies can play an imprtant part in ensuring learners are engaged and motivated to learn.

KQ5 How can you ensure that the technology is helping the learning to be inclusive for all students?

If a teacher only uses a limited variety of teaching and learning strategies in their classroom practice then some students may be at a disadvantage because they may not have any opportunities to learn in the way they like to learn. It has already been established that every student constructs their own personal meanings or understanding of their experiences and learns in their own 'unique' way. Therefore, when planning lessons a teacher should use a variety of teaching and learning strategies that will contribute to meeting some of the students' learning needs and make the lessons more inclusive. This includes using digital technologies.

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Learning outcomes – Unit 2

Teaching a lesson with digital technologies

Learning outcome G: Assess the effect of using digital technologies on students' learning by using appropriate formative assessment methods.

Key words: formative assessment methods • effective questioning • observation

Effective teachers know that a typical lesson never goes exactly as planned but are skilled at checking the current status of student understanding to make sure they are making the required progress in their learning. They do this by using different formative assessments methods, both planned and unplanned, throughout a lesson to enable students to show their thinking and progress in learning.

Candidates should review the formative assessment methods commonly used by teachers in their classroom practice to check the students' learning, identifying the advantages and limitations of using each method. Because questioning is used in most if not every lesson, candidates should identify strategies that can be used to make the use of student questioning more effective.

Guidance for summative assessment

Evidence of learning

3 Explore how this lesson using digital technologies differs from lessons that do not use digital technolgies.

The mentor must provide feedback on how successfully the candidate regularly checked the students' learning at different stages of the lesson using appropriate formative assessment methods.

Recommended resources

Petty, G. (2004). *Teaching Today: A Practical Guide*. 3rd Ed. Nelson Thornes Ltd.

Nelson,K (2007) *Teaching in the Digital Age: Using the internet to increase Student Engagement and Understanding* Corwin press, Inc

Web-based resources

Wiliam, D. (2012).*Embedded Formative Assessment*

https://www.youtube.com/watch?v=B3HRvFsZHoo

Digital tools for formative assessment https://www.commonsense.org/education/top-picks/top-tech-tools-for-formative-assessment

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Learning outcome G: Key questions

KQ1 What formative assessment methods are suitable for assessing the effect of using digital technologies on students' learning?

Candidates should refer to the commonly used formative assessment methods and explain how effective these may be for assessing the effect of digital technologies on the students' learning.

Each method should be analysed to identify its advantages and limitations.

KQ2 Why do you need to assess the effect of using digital technologies on students' learning?

Candidates must understand why it is important to formatively assess the students' learning at different stages in the lesson and that this needs to be linked to an assessment of the effect of digital technologies they choose.

KQ3 How can you judge the effects of using a particular technology on your students' learning?

It is important that candidates understand not only why but how to assess and evaluate the impact of their chosen technology on students' learning. This is an important skill and candidates need to be able to articulate clearly the stages and process they used to effectively reach a conclusiopn on the effect of the chosen activity and supporting technology.

KQ4 How are you going to provide feedback to students on their progress?

Candidates should now extend their learning by examining in more detail why providing formative feedback is an important part of AfL practice. They must understand that if effective feedback is going to improve learning, then a student needs to know three things:

- where they are in their learning
- where they need to go in the next steps of their learning
- how to get there, what improvements they can make

Suggestions for improvement should enable a student to know what gaps they have in their learning and what they need to do to take it forward. This means the feedback must be constructive and focus on the student's work and not the person. An AfL culture embraces the notion that everyone has areas for improvement, even the highest attaining students.

KQ5 What steps will you take if students are not achieving the learning objectives?

Candidates may have a good understanding of why and how to assess students progress, but it is important for them to understand what strategies they will put in place to ensure that learning is supported.

Contents

Learning outcomes – Unit 2

Teaching a lesson with digital technologies

Learning outcome H: Evaluate the lesson, including the use of the digital technologies, using feedback from their mentor and their own reflections to develop future practice.

Key words: observer feedback • reflective thinking • self-evaluation • learner feedback

To evaluate a lesson relying only on self-reflection is very challenging, no matter how experienced the teacher. The classroom is a very dynamic environment and it is easy for a teacher to miss important aspects of the lesson that are evident to an outside observer. That's why feedback from an experienced observer makes the evaluation process more rigorous in identifying lesson strengths and areas that require further development and how the use of digital technologies helped in this.

Candidates will find it helpful to review the key features of what makes an effective lesson that were identified in Unit 1 and then, as a result of studying this unit, clarify their up-to-date thinking. It is important to focus only on key features and in doing so establish that the primary feature or 'measure' is to decide if all the students achieved all the intended learning objectives.

Guidance for summative assessment

Evidence of practice

- a completed ***Module 1: Unit 2 Observer Feedback Form***
- samples of student work from the lesson, clearly showing how digital technologies promoted learning..

The outcomes evidenced in the post-observation discussion will result from observer feedback and the candidate's own reflections. They must be based on what was agreed in the pre-observation meeting, highlighting both strengths and areas to develop in future practice.

Evidence of reflection

1 Evaluate the effectiveness of the lesson, highlighting the digital technologies that helped to engage and motivate students to learn.

Candidates must use the lesson observation feedback from their mentor, and their own reflections, to evaluate the effectiveness of the lesson so it is drawn from valid and sound evidence. At least two but no more than four aspects of the lesson that helped to engage and motivate the students to learn using digital technologies should be highlighted. The evidence must be supported with relevant theory or information sources.

2 Evaluate the impact your new learning and experiences from Unit 2 have had on your practice and how this will help you to prepare for Unit 3.

Candidates should evidence at least two but no more than four aspects of their learning and experiences from Unit 2 that have had an impact on their use of digital technologies to support teaching and promote learning. One of the aspects evaluated should be the teaching method or learning activity using digital technologies they wanted to develop in the lesson that was 'new' to their practice. Candidates must focus on evaluating the impact this teaching method, learning activity and/or digital technology had on the students and their learning.

Recommended resources

Pollard, A. (2008). *Readings for Reflective Teaching*. London: Continuum.

Picardo, J. (2017) *Using Technology in the Classroom*. Bloomsbury CPD Library

Nelson,K (2007) *Teaching in the Digital Age: Using the internet to increase Student Engagement and Understanding* Corwin press, Inc

Web-based resources

Cambridge Assessment International Education (2017) Education Brief 4: The Cambridge learner and teacher attributes
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https://www.cambridgeinternational.org/Images/271191-digital-technologies-in-the-classroom.pdf
[Accessed 16 March 2019]

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Learning outcomes – Unit 2

Teaching a lesson with digital technologies

Learning outcome H: Key questions

KQ1 How can you evaluate the lesson to extract useful information?

Using their learning from Unit 1 and this unit, candidates should be indicating that an effective lesson:

- has clear aims and objectives/outcomes
- engages and motivates students to learn
- provides students with time and opportunities to reflect
- uses resources including digital technologies effectively
- makes regular checks on the students' learning
- provides sufficient time for a conclusion

This list is indicative of anticipated candidate responses.

KQ2 How can you evaluate the effectiveness of the digital technologies in promoting learning?

Students' progress in their learning should be continually monitored throughout a lesson, using appropriate formative assessment methods,

However, this is often the least effective part of many teachers' lessons because they leave too little time to review and check the required student learning.

Candidates have already established that teachers should not move forward in a lesson until the students' progress in their learning has been checked. This principle must also be applied when evaluating the effectiveness of the digital technologies chosen.

KQ3 How will you know if the lesson has been effective?

Candidates will need to explore concepts of impact measurement and evidence based teaching. This early exploration will help them to develop an understanding of these concepts.

KQ4 How will you gain feedback from your students and mentors?

Relying only on self-reflection to critically evaluate a lesson is very difficult. That's why observation of a lesson by an experienced mentor, and then using their feedback to evaluate the lesson, makes the process more rigorous.

Both candidates and mentors must be aware that lesson observation is a supportive process. Much of its value will be in the follow up professional discussion, where the feedback is used to critically evaluate what aspects of the lesson went well and what requires further development.

KQ5 What will you do as a result of the feedback gained?

Self-evaluation, mentor observation and any learner feedback are only beneficial if the teacher acts on the information gained. All feedback must inform planning for subsequent learning.

Contents

Learning outcomes – Unit 3

Evaluating the use of digital technologies to support teaching and learning

Learning outcome I: Select appropriate digital technologies to design learning activities specific to developing different skills.

Key words: inclusive learning • learning activities • digital competency

To meet this learning outcome, candidates should evidence that they have designed two different learning activities and selected and used at least two different digital technologies for the development of different skills in Unit 3. Selection and use of these technologies will be evidenced in candidates' evidence of practice (Teaching and learning activity log), and in their evidence of learning and reflection in Unit 3.

The learning activities referred to in the syllabus for Unit 3 should be different to the activities in the learning sessions in units 1 and 2, but can come from any other lesson where the candidate uses digital technology for a learning activity during their learning journey for Module 1.

It is important that candidates address the purpose of using a specific digital technology for each of the two different learning activities. Linked to this is the understanding whether the chosen digital technologies allow students to achieve the learning objectives.

Guidance for summative assessment

- ***Module 1: Unit 3 Teaching and Learning Activity Log***

Candidates will log two activities over a number of lessons which use digital technologies and record why theses specific activities were chosen.

- ***Module 1: Unit 3 Teaching and Learning Activity: Observer Feedback***

Observation should focus on the suitability of the digital technologies used to develop the skills determined by the learning objectives.

Evidence of learning

1 Explain the design of your two different learning activities and the benefits and challenges of using digital technologies in these two instances

2 Analyse how the challenges may be addressed and how the benefits can be developed.

Recommended resources

Kyriacou, C. (2104). *Essential Teaching Skills*. Stanley Thornes

Petty, G. (2004). *Teaching Today: A Practical Guide*, 3rd Edition. Nelson Thornes Ltd.

McKeown, S. and McGlasho, A. (2014). Brilliant Ideas for Using ICT in the Inclusive Classroom. Routledge.

Nelson,K (2007) *Teaching in the Digital Age: Using the internet to increase Student Engagement and Understanding* Corwin press, Inc

Web-based resources

Technology and Teaching: *Finding a balance* (2014) Marcinek, A. [Online],

http://www.edutopia.org/blog/technology-and-teaching-finding-balance-andrew-marcinek

Learning outcomes – Unit 3

Evaluating the use of digital technologies to support teaching and learning

Learning outcome I: Key questions

KQ1 What are the advantages and disadvantages of different ways of evaluating the effectiveness of a particular digital technology in supporting teaching and learning?

Exploring a variety of ways to evaluate the effectiveness of digital technologies will ensure the candidate can draw on a number of sources to reach their conclusions.

KQ2 Are the two learning activities chosen starters, main activities or plenary activities?

Though this requires a descriptive response, the candidate would be wise to evidence two different activities for two diffeent purposes. This will help them evidence the range of digital technologies they are exploring.

KQ3 How did you choose which digital technologies to use for each learning activity?

The candidate must link theory to their practice. The concepts and theories explored in unit 1 and unit 2 will need to be evidenced here as they will form the basis of the candidates' selection rationale.

KQ4 Is the purpose of using specific digital tools for each learning activity clear?

The purpose will link to concepts and theories of using digital technology in teaching and learning. Concepts and theories of developing 21st Century skills and digital competency will also need to be discussed.

KQ5 Do the chosen digital technologies allow students to achieve the learning objectives?

The candidate will have a well developed understanding of how to craft learning objectives effectively. It is important that these are referred to with their evaluation of the effectiveness of the digital activity in meeting these learning objectives.

Contents

Learning outcome J: Use feedback from colleagues and students to identify strengths and areas for further development when designing learning activities using digital technologies.

Key words: managing lessons • active learning strategies • differentiation • formative assessment • learner feedback

To meet this learning outcome, candidates should use the feedback from discussions with colleagues, including their mentor about their practice after the observation of learning activities using digital technologies. Observations should include those of the lesson in Unit 2 and then teaching and learning activities for Unit 3. Many observations might take place over the course of the Module, so for submission candidates should choose those that best meet the evidence requirements for Unit 3 (to identify strengths and areas for further development in professional practice). Feedback should also be gained from learners to inform a candidate's reflections. Candidates can ask learners after a learning activity what helped them learn and how the activity might be improved to be more effective for learning or whether the digital technology helped them to learn better and why.

Learners' feedback can be gained from the lesson taught in Unit 2 and the two learning activities in Unit 3 as well as from other learning activities using digital technologies.

Guidance for summative assessment

Evidence of practice

- ***Module 1: Unit 3 Teaching and Learning Activity: Observer Feedback***

A mentor will observer these activities being used and discuss their use with the candidate.

Evidence of reflection (800 words)

This learning outcome is evidenced in the evidence of reflection in Unit 3.

1 Evaluate the impact that the feedback from colleagues and students has had on your practice.

2 Evaluate your thinking and practice in using digital technologies for teaching and learning, hopw it i has developed during the programme and how it might develop further.

Recommended resources

Nelson,K (2007) *Teaching in the Digital Age: Using the internet to increase Student Engagement and Understanding* Corwin press, Inc.

Web-based resources

Kolb, D. (1984) *Experiential learning: experience as the source of learning and development*. [Online] [Accesed 12 Jul. 18]

https://www.researchgate.net/publication/235701029_Experiential_Learning_Experience_As_The_Source_Of_Learning_And_Development

Contents

Learning outcome J: Key questions

KQ1 Why is it important to have feedback from colleagues and students?

Candidates will explore the importance of feedback on their practice.Gaining feedback from colleagues can give critical insights into their learning and teaching practice and their use of digital technologies. Peer observation can encourage collegiality and group reflection which will promote improvements.

Gaining feedback from students is equally important. Considerable research evidence suggests that student evaluations provide a reliable, valid assessment of teaching effectiveness, particularly if they reflect the views of many students in several courses of teaching.

KQ2 How are you going to gain feedback from colleagues?

Ways of gaining feedback will vary for each candidate. Peer observation,peer reflection and focus groups or small group discussions are some methods. Sharing lesson resources for comment and identifying opportunities for adjustment to practice can also be achieved in a variety of ways.

KQ3 How are you going to gain feedback from students?

Again this will vary dependent on the candidate's context. But there are a number of ways to gain student feedback which could be employed:

- student interviews
- written reflections
- exit slips on content, digital technologies used, learning environment or lesson structure.

KQ4 Which students are you going to gain feedback from?

This may seem a straightforward question,but the candidate needs to gather feedback from a wide range of students. The best way to ensure this happens is to use two or three differnet feedback methods.

KQ5 How are you going to analyse the feedback so that it can inform future planning?

Candidates need to demonstrate a clear link between their evaluation of the feedback gained from colleagues and students to the development of their future practice. This should focus on their use of digital technologies for teaching and learning.

Learning outcomes – Unit 3

Evaluating the use of digital technologies to support teaching and learning

Learning outcome K: Apply relevant concepts, principles and theories in reflecting on the benefits and challenges of using digital technologies for teaching and learning.

Key words: assessment for learning • formative feedback

To meet this learning outcome, candidates are expected to introduce some of their reading to support points made when evaluating teaching and learning using digital technologies. Their sources will need to be referenced correctly. This learning outcome is evidenced in Units 2 and 3, in particular in reference to:

- evaluating a lesson that uses digital technologies in the evidence of reflection in Unit 2
- evaluating the two learning activities using digital technologies in the evidence of reflection in Unit 3

Guidance for summative assessment

Evidence of practice

- ***Module 1: Unit 3 Teaching and Learning Activity: Observer Feedback***

The mentor must provide feedback on how successfully the candidate used digital technologies in the identified lessons.

Evidence of reflection

1 Evaluate the impact that the feedback from colleagues and students has had on your practice.

2 Evaluate your thinking and practice in using digital technologies for teaching and learning, how it has developed during the programme and how it might develop further.

Recommended resources

Black, P. and Wiliam, D. (1998). *Inside the black box: raising standards through classroom assessment*. King's College, London.

Beetham, H., & Sharpe, R. (Eds.) (2013). *Rethinking Pedagogy for a Digital Age Designing for 21st Century Learning*. New York Routledge.

Wiliam, D. (2017). *Embedded Formative Assessment: Strategies for Classroom Assessment That Drives Student Engagement and Learning*, 2nd Edition. Solution Tree Press.

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Using digital technologies to promote inclusive practices in education. https://www.nfer.ac.uk/publications/FUTL05/FUTL05.pdf [Accessed 17 July 18]

Assessment Reform Group (2002). *Assessment for Learning: 10 Principles*. https://www.aaia.org.uk/content/uploads/2010/06/Assessment-for-Learning-10-principles.pdf

Puentedura, R. (2010) 'The SAMR Model.' [Online] http://hippasus.com/resources/sweden2010/SAMR_TPCK_IntroToAdvancedPractice.pdf

[Accessed 17 July 2018].

The pros and cons of digital tools in the classroom https://www.wgu.edu/heyteach/article/pros-and-cons-digital-tools-classroom1807.htm

TPACK https://www.youtube.com/watch?v=yMQiHJsePOM

Koehler, M. , Mishra, P. (2013). *The Technological Pedagogical Content Knowledge Framework*. https://www.punyamishra.com/wp-content/uploads/2013/08/TPACK-handbookchapter-2013.pdf

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Learning outcomes – Unit 3

Evaluating the use of digital technologies to support teaching and learning

Learning outcome K: Key questions

KQ1 How important do you think it is to relate your practice of using digital technologies for teaching and learning to concepts, principles and theories?

Ubiquity, accessibility, rapid feedback and ease of use are all features of learners' daily experience with digital technologies which are changing their expectations of education.Factors such as this need to be explored and situated in the current conceptual and theoretical thinking on the use of digital technologies for teaching and learning.

KQ2 As well as more generic learning theories, what theories related to using digital technologies have informed your practice throughout the Certificate, and why?

Emerging theories that support the use of technology and help to create more authentic learning environments can be explored: connectivism, for example.The candidate will explore a range of concepts and theories and relate these to their own practice.

KQ3 What evidence have you given that supports concepts, principles and theories related to using digital technologies to support teaching and learning?

This question, if addressed , will ensure that the candidate supports their application of theory to practice with appropriate evidence.

KQ4 Why are you now going to make digital technologies an integral part of your own teaching?

Candidates should now extend their learning by examining in more detail why providing oportunities for students to learn using digital technologies is effective. They must understand that if a digital technology is going to improve learning, then they must have a deep understanding of key concepts and be a reflective practitioner.

KQ5 Why are you now going to make digital technologies an integral part of your own teaching?

Candidates must also understand that the outcomes of the evaluation of the use of digital technology for teaching and learning also outcomes inform teachers of what they must change or adjust in their future classroom practice so all students learn and achieve.

Contents

Learning outcomes – Unit 3

Evaluating the use of digital technologies to support teaching and learning

Learning outcome L: Create opportunities to collaborate with colleagues to design learning activities using digital technologies.

Key words: reflective practitioner • analysis • collaboration

To meet this learning outcome, candidates should be encouraged to work with colleagues to design learning activities using digital technologies and invite colleagues to observe learning activities using digital technologies. Candidates might also observe other colleagues as they use digital technologies. There should be at least two examples of to show how a candidate has collaborated with colleagues to create learning activities using digital technologies.

Guidance for summative assessment

Evidence of practice

- ***Module 1: Unit 3 Collaboration with colleagues***

This is an opportunity for the candidate to collaborate with colleagues to deepen their understanding and knowledge of how to desing and implement teaching and learning using digital technologies.

Recommended resources

Pollard, A. (2008). *Readings for Reflective Teaching*. London: Continuum.

Nelson,K (2007) *Teaching in the Digital Age: Using the internet to increase Student Engagement and Understanding* Corwin press, Inc

Wallace, S. (2007) *Teaching, Tutoring and Training in the Lifelong Learning*, 3rd Edition. Learning Matters

Picardo, J. (2017). *Using Technology in the Classroom.* Bloomsbury CPD Library

Web-based resources

Cambridge International Examinations (2015) Education Brief 4: The Cambridge learner and teacher attributes

http://www.cambridgeinternational.org/images/271189-the-cambridge-learner-and-teacher-attributes.pdf

Digital learning day
https://digitallearningday.org/

The Worlds Largest Lesson
http://worldslargestlesson.globalgoals.org/

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Learning outcome L: Key questions

KQ1 What criteria can be used to judge the effectiveness of a lesson?

Judging the effectiveness of a lesson is never easy. To assist a teacher in what to think about when they reflect on the lesson, or what a colleague should look for when observing the lesson, criteria in the form of a rubric can be used. Candidates can create suitable criteria by basing them on the features of an effective lesson that were identified in Unit 2 and aspects of professional practice that have been developed throughout Module 1. Because numerous features will have been identified, candidates might find it beneficial to group them under different headings, for example:

Planning – did the lesson plan:

- have clearly stated aims and objectives so the purpose of the lesson was apparent
- have a coherent structure
- show well-defined links to previous learning and the learning objectives or outcomes
- show a variety of teaching and learning activities that were mainly based on active learning approaches and included the use of a range of digital technologies.
- show teaching and learning activities that were sometimes differentiated
- show a variety of formative assessment methods that were used to support and monitor the students' learning throughout the lesson
- show a range of resources used to support both learning and teaching

Teaching – did the teacher:

- demonstrate sound subject knowledge and enthusiasm for the topic being taught
- show knowledge of the digital technologies used and understood how they supported teaching and learning.
- use mainly active learning approaches to facilitate student learning
- communicate effectively when making presentations and giving classroom instructions
- use effective questioning techniques that challenged and extended the students' learning
- provide students with opportunities to reflect, think and apply their learning
- provide support to all students to make the learning inclusive
- manage the lesson effectively so all the students were engaged and motivated to learn
- respond to any unexpected events appropriately

Learning – did the students:

- know and understand what was expected of them in the lesson
- participate in activities that were mainly based on active learning approaches
- have time to think and opportunities to apply new learning and ideas
- participate in activities that were frequently differentiated to help meet their learning needs
- participate in a range of activities where their learning was supported, challenged and extended by the teacher and their peers
- frequently contribute to the lesson using their existing learning and experiences and have opportunities to clarify any misunderstandings they had in their learning
- participate in pair and group work to support each other's learning

Assessment – did the students:

- know and understand the learning outcomes to be achieved
- have their existing learning checked before any new learning was developed
- have their learning supported and monitored throughout the lesson using suitable formative assessment methods
- have opportunities to assess their own and each other's learning
- receive formative assessment feedback that was clear, helpful and supportive
- know and understand how their learning was progressing and what they needed to do to improve their future learning
- have their future learning 'shaped' using the outcomes of formative assessment

Any criteria developed can then be used to critically evaluate lessons and the digital technologies used, in order to identify strengths and areas for further development in classroom practice.

Assessment criteria – Introduction

Assessment criteria are used to enable candidates to know what they need to do to achieve the learning outcomes. They are an indication of achievement at a certain level. They are evaluative and holistically applied to the whole portfolio.

When assessing a portfolio the examiner will first establish that each learning outcome has been evidenced to the standard required, which is FHEQ Level 4. Once they have assessed that all the learning outcomes are evidenced the examiner will use the assessment criteria to judge how well the learning outcomes have been met. To achieve an overall Pass grade all four assessment criteria need to be met. To receive an overall Distinction three criteria need to be awarded a distinction grade with the fourth awarded at least a Pass grade. Once the examiner has marked all the candidates portfolios from that Centre they will complete the ***Centre Feedback Form***. This is designed to help guide the Programme leader in developing the quality of their programme.

Candidates will be assessed for the Certificate according to the following criteria, applied to the portfolio as a whole.

Contents

Assessment criterion 1
Understanding teaching and learning with digital technologies

Distinction	Demonstrates a well-focused understanding of relevant concepts and principles with evidence of analysis of strengths and weaknesses. Applies relevant concepts and principles to own practice with evidence of critical evaluation and limitations.
Pass	Demonstrates a broad understanding of relevant concepts and principles and is able to apply these in a meaningful way to own practice.
Fail	Demonstrates inadequate or poor understanding of relevant concepts and principles. Application to own practice may be very limited, inadequate or inappropriately applied.

Key Skills:

application of theory to practice

analysis

critical evaluation

A candidate's lesson plans and observer feedbacks provide evidence of how they have applied relevant teaching and learning principles and concepts to their own practice. In a candidate's evidence of learning, the explanations and descriptions must demonstrate they have understood relevant concepts and principles of teaching and learning and using digital tehcnologies for teaching and learning by applying them to their own practice. The evidence must be supported, where appropriate, with reference to relevant theories of learning and teaching. A candidate who demonstrates in their evidence of practice and learning a broad understanding of relevant concepts and principles of teaching and learning using digital technologies, and is able to apply them in a meaningful way to their own practice will secure a pass grade for this criterion.

To be awarded a distinction grade a candidate must demonstrate in their evidence of reflection both analysis and critical evaluation of relevant concepts and principles of teaching and learning using digital technologies. The evidence must be supported with reference to relevant theories of learning and teaching using digital technologies.

Contents

Assessment criterion 2
Developing thinking and practice in teaching with digital technologies

Distinction	Evidences effective practice, with a well-focused understanding of relevant theories and principles underlying practice in teaching, and applied to own practice. Evidence of reflective evaluation of own practice, and identification of learning from experience.
Pass	Evidences effective practice, with a sound and largely accurate understanding of relevant theories and principles underlying practice in teaching. Some evidence of application of theories and principles to own practice. Some evidence of reflective evaluation.
Fail	Little or poor evidence of linking effective practice with theories and principles. Limited or inaccurate understanding of relevant theories and practice. Little evidence of application of theories to and principles to own practice.

Key skills:

effective classroom practice

application of theory to practice

reflective evaluation

In their evidence of practice a candidate's lesson plans and observer feedbacks provide evidence of effective classroom practice and how it is underpinned by an understanding of relevant theories, concepts and principles of teaching and learning using digital technologies. In their evidence of learning all explanations and descriptions must demonstrate a sound and largely accurate understanding of relevant theories and principles that underlie their teaching practice. In a candidate's evidence of reflection there must be evidence of reflective evaluation that demonstrates how they are developing their thinking and practice. The work in their evidence of learning and reflection must be supported with references to relevant theories of learning. A candidate who meets these standards will secure a pass grade for this criterion.

To be awarded a distinction grade for this criterion a candidate's lesson plans and observer feedbacks must demonstrate that their practice is not only effective but is clearly improving as a result of reflective evaluation and learning from experience. The evidence in the learning and reflective accounts that demonstrates a candidate's developing thinking and practice must be consistently supported with reference to relevant theories and principles of teaching and learning, including teaching and learning using digital technologies.

Assessment criterion 3
Analysis and discussion

Distinction	Analyses questions and issues arising from study, inquiry, discussion, and experience, in a well-focused manner, supported by relevant and useful examples drawn from valid and reliable evidence. Evidence of a range of information sources to inform analysis and discussion. Well-structured work.
Pass	Analyses questions and issues arising from study, inquiry and experience in a sound and largely appropriate manner. Some use of relevant examples drawn from sound evidence. Use of some different information sources to inform analysis and discussion. Structured approach to analysis and discussion.
Fail	Descriptive accounts, with inaccuracies and misunderstandings in places. Opinions and views expressed, but without links to evidence and/or relevant examples. Work likely to be poorly organised and structured.

Key skills:

analysis

reasoning

research

valid and reliable evidence

An analysis is a detailed examination of a question or issue that looks in depth at each constituent part from different viewpoints to determine its essential features. A discussion is a written debate that requires the skill of reasoning by providing arguments for and against ideas in order to make decisions. A candidate must demonstrate their skills of analysis and discussion in both their evidence of learning and reflection when considering questions and issues arising from their studies, inquiries or experiences. The work must be structured to make the issue or question being analysed or discussed apparent and supported with relevant examples drawn from sound evidence. Different information sources such as textbooks, web page or site, journals or articles related to teaching and learning, etc. must be used to inform analysis and discussion and referenced appropriately. A candidate who meets these standards will secure a pass grade for this criterion.

To be awarded a distinction grade for this criterion any analysis or discussion of questions and issues arising from their study, inquiry or experience must be well-focused and supported by relevant examples drawn from valid and reliable evidence. The work must be well-structured and a range of information sources used to inform analysis and discussion must be evidenced and correctly referenced.

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Assessment criterion 4
Communication and presentation

Distinction	Presents ideas, arguments and information in a well-structured and consistent manner. Professional approach to presentation of work, with opinions only given when justified and/or backed up by evidence. Academic conventions followed, with appropriate referencing to published work or other accepted sources of evidence.
Pass	Presents ideas, arguments and discussions in an orderly and generally consistent manner. Professional approach to presentation of work. Opinions may be expressed at times without evidential or other accepted support. Academic conventions mostly followed, with attempt to reference appropriately.
Fail	Work demonstrates significant weaknesses in presentation and may be poorly structured, not well organised and not presented in a professional manner. Opinions may be given at length without any attempt to provide support from other sources.

Key skills:

structure and presentation of work

academic conventions

referencing

A candidate must structure their work so that all required explanations, descriptions, analyses and evaluations are presented in an orderly and consistent manner that aids effective communication of their understanding, thinking, ideas arguments, information, etc. When opinions are expressed they should be supported with reference to relevant theories, concepts or principles of teaching and learning using digital technologies. This means a candidate must follow academic conventions and reference their work appropriately, preferably using the Harvard style of referencing. A candidate who meets these standards will secure a pass grade for this criterion.

To be awarded a distinction grade for this criterion a candidate must structure their work in a clear and consistent manner that effectively communicates their understanding, thinking, ideas arguments, information, etc. Opinions are only given when supported with reference to relevant theories, concepts or principles of teaching and learning using digital technologies. Academic conventions are consistently followed with appropriate referencing to published work or other accepted sources of evidence, preferably using the Harvard style of referencing.

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Cambridge Assessment International Education (2017) Education Brief: Digital Technologies in the Classroom https://www.cambridgeinternational.org/Images/271191-digital-technologies-in-the-classroom.pdf

Cambridge Assessment International Education (2017) *Education Brief: Metacognition* https://www.cambridgeinternational.org/Images/272307-metacognition.pdf

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Key words

21st Century Skills - comprise skills, abilities, and learning dispositions that have been identified as being required for success in 21st century society and workplaces by educators, business leaders, academics, and governmental agencies.

Active learning – based on the theory of constructivism, 'active learning' describes a classroom approach which acknowledges that learners are active in the learning process by building knowledge and understanding in response to learning opportunities provided by their thinking.

Active learning strategies – a process through which evidence, produced by a learner, is collected in a planned and systematic way and used to make a judgement about learner's learning.

Analysis – process of breaking a theory, concept, process, etc. into its constituent parts and then considers each part using arguments and evidence for and against as well as considering how these parts interrelate to one another.

Assessment - a term that covers any activity in which evidence of learning is collected in a planned and systematic way and is used to make a judgement about learning.

Assessment for Learning (Afl) – Essential teaching strategies during learning to help teachers and students evaluate progress in terms of understanding and skill acquisition, providing guidance and feedback for subsequent teaching and learning.

Classroom management - the methods and strategies sed to maintain a classroom environment that is conducive to student success and learning.

Collaboration - Groups of people working together to solve a problem or achieve a vision.

Collaborative learning – students work together in small groups or pairs on clearly defined learning tasks or activities.

Constructivism – a theory about how people learn by constructing their own unique personal meanings or understandings of their experiences and then relating their new learning with what they already know.

Digital competency - Possessing the knowledge, skills and confidence to effectively utilise digital technologies to achieve objectives.

Differentiation - is defined by the Training and Development Agency for Schools as:

'the process by which differences between learners are accommodated so that all students in a group have the best possible chance of learning'. (Bartlett, 2015)

Effective questioning – requires the use of both closed and open type questions, and different strategies, to make sure all students participate in the learning process.

Engagement - Participate or become involved in an activity.

Evaluation – a term that covers making judgements in a broad context such as the effectiveness of students' learning, a teacher's classroom practice, individual lessons, sequences of lessons, learning programmes, etc.

Extrinsic motivation – a student is motivated to learn by external factors such as rewards, social recognition, fear of punishment, etc. This kind of motivation focuses people on rewards rather than action.

Facilitated learning - A learning approach where students are encouraged to take ownership and control of their learning process and the role of the teacher changes from supplier of knowledge to facilitating the process of learning. This is done by providing learning resources and actively challenging students through systematic problem-based learning and other active learning methods

Formative assessment – is used to support and monitor the learning progress of students.

Formative assessment methods – are used to support and monitor the students' learning at different stages in a lesson so that adjustments can be made to bridge any 'gaps' in their learning.

Formative feedback – is information communicated to the student that provides guidance about their next steps in learning.

Hardware - the physical and electronic parts of a computer, rather than the instructions it follows.

Inclusive learning - recognises all students' entitlement to a learning experience that respects diversity, enables participation, removes barriers and anticipates and considers a variety of learning needs.

Intrinsic motivation – a student is motivated to learn by internal factors and the desire to do things because they enjoy doing them, such as being successful at what they do, being connected with others, having autonomy, etc.

Learner Centred - A teaching approach that puts the students at the center of learning by actively involving them in the learning process and putting the teacher in the facilitative and mentoring role.

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Key words

Learning activities - activities designed or deployed by a teacher to bring about, or create the conditions for learning.

Learning aim - a broad statement of intent indicating what the teacher must teach and the students must learn.

Learning objectives – describe what the students must, should or could learn.

Learner feedback - information given to the learner or teacher about the learner's performance relative to learning goals or outcomes.

Learning outcomes – describe what the students will be able to do as a result of their learning, they specify what learning will be assessed.

Lesson plan – a guide designed by a teacher to organise classroom learning, teaching and assessment in an individual lesson.

Local - done in, made in, or connected with a particular area.

Managing lessons – a teacher's ability to use a wide range of teaching and learning strategies to provide students with opportunities to achieve their full learning potential.

Metacognition – a term applied to a complex range of processes that contribute to a developing awareness in students of their own thinking and knowledge (Flavell 1976), it is often described as the process of 'thinking about thinking' or 'learning to learn'.

Models of learning – technique used to interpret and simplify the complex concept of learning to make it more understandable.

Motivation

"… a person's aroused desire for participation in a learning process." (Curzon, 1997:230)

Motivation – Dweck's (2006) concept of fixed and growth mindsets indicates that students with a fixed mind-set believe their ability is fixed and there is very little if anything they can do to improve it, students with a growth mind-set believe that ability and success are due to learning, which requires time and effort.

Observation - The action or process of closely observing or monitoring something or someone.

Observer feedback – feedback from observation of a teacher's lesson that's focused on the intended outcomes of the observation and is analytical in content.

Plan a sequence of lessons – process of planning several lessons that will be taught consecutively in order to create smooth transitions between lessons and make sure all the required learning objectives for a unit or block of learning can be accommodated.

Reflection – is to think systematically about an experience, activity, etc.

Reflective practitioner – is a teacher who systematically thinks about their classroom experiences in order to develop, change and improve their professional practice.

Reflective thinking – according to Dewey (2007) is:

"… an active, persistent, and careful consideration of a belief or supposed form of knowledge."

Self-evaluaton - a process whereby teachers collect the data on their own teaching effectiveness and analyse the information to consider improvement to that teaching.

Software - the programs and other operating information used by a computer.

Summative assessment – is used to evidence what a student has learned at a given point in time, usually at the end of a course or topic.

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