Cambridge Assessment International Education

Cambridge Professional Development

Syllabus

Cambridge International Certificate in Teaching with Digital Technologies 6224

Cambridge International Diploma in Teaching with Digital Technologies 6225

Centres using this syllabus must use PDQ Connect for collation of evidence and the submission of ePortfolios.

For examination in 2020, 2021 and 2022 Version 3

Cambridge Pathway

Why choose Cambridge?

Cambridge Professional Development Qualifications (PDQs) provide a strong framework to support the effective continuing professional development of candidates.

They help candidates to:

- engage critically with relevant concepts, principles, theories and best practices from around the world
- apply new ideas and approaches in reflective practice in their own teaching and learning context
- formatively evaluate experiences to plan further development
- transform the quality of teaching and school leadership to improve the outcomes of students.

Cambridge PDQs are designed to be integrated into schools' professional development planning, activities and culture. They help schools to improve through cost-effective, sustainable programmes that benefit teachers and their students. They demonstrate to parents, the school community and stakeholders that the school values and nurtures staff development.

'It has encouraged experimentation of best practices and changes in teaching and leadership practices, enriched professional conversations and professional judgements of staff, and renewed interest in education among staff.'

Richard Sarpong, Head of Professional Development, International Community School, Kumasi, Ghana

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1 Introduction

Purpose of this document

This syllabus sets out the details of the Certificate and Diploma in Teaching with Digital Technologies. These are Cambridge Professional Development Qualifications (PDQs) offered by Cambridge Assessment International Education.

The syllabus will help Programme Leaders in Cambridge Professional Development Centres understand the design, structure and requirements of these qualifications. It will also help them to guide their candidates accordingly.

The syllabus focuses on the learning outcomes and related scheme of assessment. For further guidance on the design principles and features of programmes leading to these qualifications please see the resources for Cambridge Professional Development Centres.

These are available at **www.cambridgeinternational.org/pdq**

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Quality

Cambridge PDQs are benchmarked to the Framework for Higher Educational Qualifications (FHEQ) for England, Wales and Northern Ireland. Cambridge PDQ Certificates are benchmarked to FHEQ Level 4 and Diplomas to FHEQ Level 5.

This means that teachers and leaders achieving a Cambridge PDQ are well prepared for their next step in the professional development pathway and their Cambridge PDQ has value as they progress to relevant Level 6 and 7 programmes.

'Cambridge guides and supports us in implementing the programmes, and we encourage the teachers, leaders and their schools to think creatively and be innovative in their practice. The outcomes of collaborative learning have impacted positively on schools through improved learning outcomes.'

Vardhana Lakshmi, Programme Leader CfBT Education Services, India

The Cambridge teacher

Cambridge International programmes and qualifications develop not only subject knowledge and skills but also attitudes, ways of thinking and behaviours.

There are five Cambridge teacher attributes. Cambridge teachers are:

- **confident** in teaching their subject and engaging each student in learning
- **responsible** for themselves, responsive to and respectful of others
- **reflective** as learners themselves, developing their practice
- **innovative** and equipped for new and future challenges
- **engaged** intellectually, professionally and socially, ready to make a difference.

More information on the Cambridge teacher and Cambridge learner attributes can be found at:
www.cambridgeinternational.org/images/271189-the-cambridge-learner-and-teacher-attributes.pdf

Support for Cambridge Programme Leaders

Every Cambridge PDQ Centre appoints a Programme Leader who is responsible for designing and managing the programme. The Programme Leader is pivotal to the quality and success of the Cambridge PDQ programme.

The role is wide-ranging, from designing and developing the programme to liaising with mentors, school leadership and Cambridge International. Being an effective Programme Leader is about shaping and supporting professional learning to have an impact on the quality of teaching and leadership in schools. Programme Leaders evaluate their professional development learning programme as part of their commitment to professional development.

We provide a wide range of practical resources, detailed guidance and innovative support so that Programme Leaders can give their candidates the best possible preparation for Cambridge PDQs.

Support for Cambridge PDQs

Programme Leader Resources

- Syllabus
- Module Guides
- Digital Resources
- Guide to Being a Mentor
- Resource list

ePortfolio Creation Support

- Exemplar ePortfolios
- Module Guides
- Principal Examiner reports

Training

- Face-to-face workshops around the world
- Online training

Community

- Online Programme Leader Community

Find out more at **http://learning.cambridgeinternational.org/pdconnect/**

Recommended reading

There are many resources that can support candidates during their studies. Please visit the online community on PDQ Connect to access the Module Guides, which have been developed by the Principal Examiners. These guides contain the recommended reading lists, and detailed guidance for Programme Leaders to use in their programmes.

'Getting started with …' is a series of interactive resources which introduce and develop key areas of teaching and learning practice. They link what the research says with what happens in the classroom, and provide new ideas to help you and your teachers. Follow the link to access the full range of resources: **www.cambridgeinternational.org/teaching-and-learning/getting-started-with**

Syllabus overview

The Certificate and Diploma are designed to help teachers use digital technologies effectively and appropriately in supporting their students' learning. The qualifications encourage candidates to reflect critically on their own and colleagues' teaching, and to experiment with new techniques and technologies. Ultimately, they will improve their own practice, so that all their students learn more effectively.

They are for practising teachers, focusing on the development of knowledge, skills and understanding in the key aspects of teaching with digital technologies. They are inclusive and relevant to all teaching and learning contexts: from primary and secondary general education, to vocational education and training, and to further, adult and higher education. They help candidates to explore and apply new ideas in their own context, integrate new approaches in their own practice, and demonstrate their professional development as reflective practitioners. Due to the level of support required during the programme, Programme Leaders are not permitted to compile their own ePortfolio of evidence and submit it to Cambridge International as part of their own PDQ Programme.

Candidates need to:

- be a full- or part-time teacher employed in an educational institution such as a school, college, university, or adult training centre
- teach in their current school over a full academic year, for a minimum of 24 weeks and a minimum of six hours per week
- have the regular support of a mentor who understands the essential principles that underpin this qualification, and can provide helpful advice and observations
- teach a group with a minimum of six learners
- be responsible for planning, teaching and formatively assessing groups of learners.

The **Cambridge International Certificate in Teaching with Digital Technologies** is for teachers who want to:

- engage with the principles and concepts of using digital technologies to improve their effectiveness as teachers and their students' learning
- gain the knowledge, skills and understanding of how digital technologies can support an inclusive approach to teaching and learning
- use opportunities to try something new in their classroom practice
- engage with colleagues to improve professional knowledge and practice
- develop a reflective approach to the development of their professional practice
- progress their teaching career.

The **Cambridge International Diploma in Teaching with Digital Technologies** is for teachers who want to:

- critically engage with the principles and concepts of using digital technologies to improve their effectiveness as teachers and their students' learning
- gain further knowledge, skills and understanding of how digital technologies can support inclusive approaches to teaching and learning
- use opportunities to adopt different digital technologies to improve own practice and students' learning
- collaborate with colleagues to improve professional knowledge and practice
- develop their reflective practice skills to evaluate and improve their classroom practice
- improve their classroom practice using the process of practitioner inquiry
- progress their teaching career.

Two essential principles underpin the design of the qualifications: effective teaching and effective professional development. Research indicates that effective teaching is the most significant positive factor contributing to students' development. The quality of a school or school system depends on the quality of its teachers and their teaching.

The characteristics of effective teachers include:

- knowing their curriculum area well
- understanding their students and meeting their needs as individuals
- encouraging students to engage actively in their own learning
- ensuring formative assessment is embedded in classroom practice
- making connections, for example, to students' experiences, the real world, and wider contexts
- using a variety of teaching strategies and activities appropriately
- being reflective and creative practitioners engaged in continuous professional learning
- being collaborative and supporting colleagues, school and community.

Research indicates that effective teacher professional development:

- is integrated into the everyday life of the school and the teacher
- considers teachers' prior knowledge and experience
- offers opportunities for reflection and learning from experience
- encourages and supports innovation and collaboration
- helps teachers to develop, and critically engage with, their own theories of learning
- enriches teachers' learning through critical engagement with the theories of others
- is sustained over time and supported by people with expertise.

The Certificate and Diploma are designed to provide for such professional development. The programme involves a spiral of professional learning, each stage being a cycle of experiential learning and reflective practice following on from the previous cycle and leading on to the next. Areas of learning are revisited systematically within the programme so that the candidate can engage with these in more depth and detail, and acquire related knowledge and skills.

The spiral of professional learning in a Cambridge PDQ programme depends particularly on three processes:

- observation
- reflection
- learning with and from mentors.

These processes work together. It is crucial that learners receive feedback from being observed to inform their continuous reflection on their learning experiences. Observation and reflection are much more effective with the support of a mentor.

The mentor develops a learning relationship with the candidate, supporting them during their work-based learning to make the most of the learning experience and to achieve the Cambridge qualification. The mentor understands the essential principles of the Cambridge PDQ, and provides helpful advice to their candidate, sharing their own experiences and knowledge.

'A good aspect of the programme is that my mentor and I would discuss my lesson and I would reflect during this discussion.'

Yu Wei, has been a teacher of mathematics for three years and currently teaches A Level students at ULink College of Shanghai, China

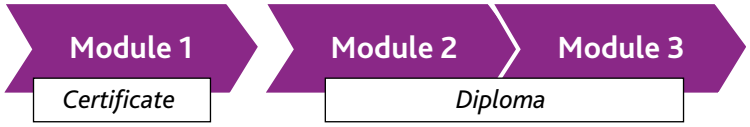
Language requirements

To take part in the Certificate or Diploma programme candidates are required to have sufficient competence in English. All candidates should have English language competence comparable to **Level B2** in the **Common European Framework of Reference for Languages (CEFR)**. This framework is provided by the Council for Europe. Further details can be found on the Council's website at **http://coe.int/t/dg4/education/elp-reg/cefr grids EN.asp**

We recommend a minimum requirement of 5.5 on the International English Language Testing System. See **www.ielts.org/** for more details.

What is the qualification structure

Module 1 can be taken on its own as the Certificate. Candidates can then progress to Modules 2 and 3 to complete the Diploma.

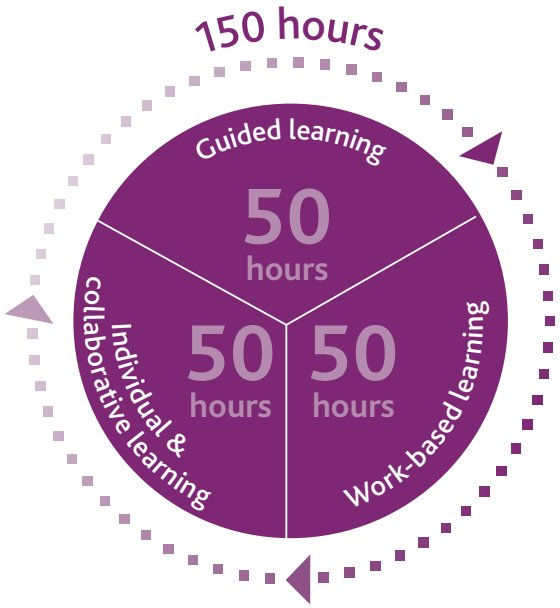


The table below shows what is involved in each module.

Learning hours in preparation	150
Recommended programme duration	4 months
Assessment	Portfolio of evidence of practice, learning and reflection
Evidence length	3600 words with work-based records

What does the Certificate or Diploma involve?

A typical Certificate or Diploma programme run by a Cambridge Professional Development Centre consists of a broad balance of activities, appropriate to the needs and circumstances of teachers and their schools. The programme is planned by the centre's programme leader and team as a coherent sequence of learning over time, with a variety of elements.



Centres must provide at least 50 hours of guided learning for each module. Candidates should integrate as much preparation time as possible into their day-to-day practice. They should allow time for background reading and discussion with their colleagues, to enrich their reflective practice.

During each stage of the programme, candidates explore a number of key questions and engage in a series of activities closely related to their everyday professional work. These activities and related reflections produce evidence for assessment.

There is an important role for a mentor to play in supporting this learning. Through discussion and their questioning skills, mentors encourage candidates to reflect on their learning and on what it means for their approaches to teaching. They also help candidates to demonstrate through examples and accounts of practice that they are:

- acquiring new skills
- learning how to use their new skills and knowledge
- linking changes in classroom practice to improvements in student outcomes.

How are the Certificate and Diploma assessed?

Candidates are assessed through an ePortfolio of evidence, submitted to a team of Cambridge International examiners using Cambridge PDQ Connect, an online platform. In their portfolio, candidates demonstrate their knowledge, skills and understanding in the context of their own work. Portfolio evidence includes:

- observing a colleague's classroom practice
- planning, teaching, learning and assessment materials that arise naturally out of the teaching process
- feedback from mentor, colleagues, students and others
- the teacher's own reflections on their learning and practice.

'Cambridge PDQs help us in getting trained teachers who can cater to 21st century learners; teachers familiar with international standards of teaching and learning; teachers relating their teaching practise based on international research and theories of teaching and learning.'

Dr Vandana Lulla, Director/Principal, Podar International School, India

Evidence requirements

In the portfolio candidates will use the relevant Cambridge International templates to gather, organise and present their evidence to satisfy the assessment criteria. Access to the online platform, PDQ Connect will be provided by the Programme Leader.

In the introduction to the portfolio, candidates provide background information about their professional experience and role, and the context in which they teach. This is their opportunity to indicate significant influences on their work and professional development. Although the introduction is not formally assessed or judged, it does help the examiner to understand the teaching context and interpret the subsequent assessment evidence. Please note, however, that a curriculum vitae is not required.

With written evidence, candidates should keep to the word limits and respond to the prompts in templates succinctly. The prompts indicate how to focus and shape explanations, reflections and other evidence. Candidates must also follow Cambridge International's rules for the format and size of digital evidence, such as images.

Candidates' reflections should provide references for other people's ideas and experiences, whether these are in the form of academic publications, or posts to online discussion forums or blogs. All sources must be clearly referenced.

The Programme Leader can provide further guidance on academic honesty.

Reflective journal

Candidates will maintain a reflective journal throughout their programme of learning. By keeping a journal, candidates will more effectively evaluate their practice and develop reflective skills which will underpin their professional development.

For further support on reflective practice see:
www.cambridgeinternational.org/teaching-and-learning/getting-started-with/

'Teachers who have completed a Cambridge PDQ have a greater awareness of students being at the centre of learning and thus facilitating their independence.'

Jon Murray-Walker, Headmaster, Greensteds International School, Kenya

'The teachers have become more reflective of their practice and are able to evaluate their lessons in an effective manner. As a result they are able to conduct active and engaging lessons, thereby improving the teaching and learning process.'

Loh Ghee Juan, Cambridge PDQ Programme Leader, Ipoh International School, Malaysia

2 Certificate in Teaching with Digital Technologies

Introduction to the Certificate

Aims

In the Certificate, candidates will have the opportunity to:

- understand principles, concepts and issues concerning the use of digital technologies to support learning, and apply these in their own practice
- consider how and why digital technologies may be used to support their students' learning and the challenges involved
- develop their ability to find and select appropriate digital technologies and related activities to support specific learning goals, and to engage and enthuse students
- improve their ability to plan, execute and evaluate teaching episodes that use digital technologies
- develop their reflective practice skills to help them evaluate and develop their own practice in using digital technologies
- learn collaboratively, supported by their colleagues.

Candidates can work towards the Certificate at their own pace, depending on their priorities and circumstances. Certification provides an international quality mark, enhancing their professional profile, and opening pathways for their further professional and career development.

Structure

The Certificate comprises three units related to practice which together form Module 1: Exploring teaching and learning with digital technologies.

Unit 1	Understanding the potential of digital technologies to support learning and teaching
Unit 2	Teaching a lesson with digital technologies
Unit 3	Evaluating the use of digital technologies to support teaching and learning

Each unit is set out in terms of its learning outcomes, key questions, assessment approach and evidence requirements. Assessment criteria appear at the end of this section.

- Each **learning outcome** is a statement that defines the expected goal of a curriculum, in terms of demonstrable skills or knowledge that will be acquired by the candidate.
- The **key questions** show professional learning related to each learning outcome. These questions will support the candidate as they explore the knowledge required to meet the learning outcome.
- The **assessment approach and evidence requirements** explain how candidates can show that they have achieved the learning outcomes.
- The **assessment criteria** are used by Cambridge International examiners in their judgements on the quality of the evidence presented. They specify what the candidate is expected to do in order to demonstrate that they have achieved a learning outcome.

Module 1 Exploring teaching and learning with digital technologies

Unit 1 Understanding the potential of digital technologies to support learning and teaching

Candidates will survey existing practice in their own and in colleagues' classrooms to develop a personal and local picture of using digital technologies in teaching. They will also survey the various technological tools available to them and to their students. They will then start relating these to specific learning objectives for their students, so that they can achieve the following learning outcomes for themselves.

Learning outcomes

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

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.

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

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

Learning outcomes and key questions

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

- What do we mean by teaching and learning with digital technologies?
- What is the difference between hardware and software?
- Who uses the locally available digital technologies?
- How are the locally available digital technologies used to support teaching and promote learning?
- How often are the locally available digital technologies used for teaching and learning?

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.

- Why is it important to use digital technologies for teaching and learning in your practice?
- Which concepts, principles and theories apply to the use of digital technologies for teaching and learning in your practice?
- Which learning objectives are digital technologies particularly useful for?
- How have you already used digital technologies for teaching?
- How have your students already used digital technologies for learning?

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

- What do we mean by twenty-first-century skills?
- Which skills can digital technologies help develop?
- Which specific type of digital tool can help develop a particular skill?
- How are you monitoring the development of students' skills?
- What evidence is there that digital technologies promote learning?

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

- What do we mean by 'evaluate digital technologies to support teaching and promote learning'?
- What makes a lesson using digital technologies effective?
- How might the digital technologies used to support teaching be different from those that promote learning?
- How do you choose which digital technology to use for which purpose?
- How might lessons using digital technologies differ from those that do not?

The role of the mentor in Unit 1

The mentor, with the candidate, will observe a lesson delivered by a teacher who is experienced in using digital technologies in the classroom. The mentor will hold a post-observation discussion with the candidate to support their learning on what makes an effective lesson. This discussion will provide the basis of the candidate's evidence of reflection.

Assessment

Candidates will:

- explore what digital technologies are available locally and analyse how they are used to enhance existing, or allow new, learning activities
- within their own school context, identify appropriate digital technologies and related activities that can develop their students' ability to:
  - work collaboratively
  - find things out and construct knowledge
  - take responsibility for their own learning
  - solve real-world problems and make things happen
  - share information and communicate effectively with others
  - review, adapt, revise and evaluate work as it progresses
- identify and observe an experienced teacher as they teach a lesson using digital technologies
- either before or after observing the experienced teacher's lesson, discuss with that teacher their views on using digital technologies
- discuss with their mentor how the teacher used digital technologies to support learning, and the key features of an effective lesson.

In the portfolio, candidates must submit the following.

Evidence of practice – This includes:

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

Evidence of learning (800 words)

1 Analyse the ways that locally available digital technologies are used to support teaching and promote learning.
2 Explain how students can benefit from the specific opportunities that digital technologies allow.
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.

Evidence of reflection (400 words)

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

Unit 2 Teaching a lesson with digital technologies

Candidates will explore the practice of teaching lessons with digital technologies, from planning through to evaluation. They will engage with associated concepts and principles, so that they can achieve the following learning outcomes.

Learning outcomes

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

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.

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

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

Learning outcomes and key questions

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

- What are the key aspects to consider when designing a lesson that uses digital technologies to promote learning?
- How do learning objectives in a lesson that uses digital technologies differ from those in lessons that do not use digital technologies?
- Does the lesson have clear learning objectives relating specifically to the use of digital technologies to promote learning?
- Does the lesson plan include strategies to assess whether learning has taken place?
- Is it clear in the lesson plan which digital technologies are used for teaching and which are used for learning?

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.

- What do we mean by an inclusive learning environment?
- What is the difference between inclusive learning and differentiation?
- How can the use of digital technologies help promote active learning?
- How can the use of digital technologies help motivate learners?
- How can you ensure that the technology is helping the learning to be inclusive for all students?

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

- What formative assessment methods are suitable for assessing the effect of using digital technologies on students' learning?
- Why do you need to assess the effect of using digital technologies on students' learning?
- How can you judge the effects of using a particular technology on your students' learning?
- How are you going to provide feedback to students on their progress?
- What steps will you take if students are not achieving the learning objectives?

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.

- How can you evaluate the lesson to extract useful information?
- How can you evaluate the effectiveness of the digital technologies in promoting learning?
- How will you know if the lesson has been effective?
- How will you gain feedback from your students and mentor?
- What will you do as a result of the feedback gained?

The role of the mentor in Unit 2

The mentor will lead a discussion before the taught lesson and then observe the candidate delivering the lesson. During the post-observation discussion, the mentor will give feedback to the candidate on the observed lesson and help the candidate to reflect on how effective the lesson was in supporting the students in meeting the stated outcomes. The mentor will help the candidate identify key strengths and areas for improvement in their teaching practice.

Assessment

Candidates will:

- plan, prepare, teach and evaluate a lesson
- arrange for the lesson to be observed by their mentor to provide formative feedback for reflective practice.

In the portfolio, candidates must submit the following.

Evidence of practice – This includes:

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

Evidence of learning (600 words)

1 Explain how you selected and used digital technologies in your lesson.
2 Explain how you planned for your lesson to be engaging, motivating and inclusive.
3 Explore how this lesson using digital technologies differs from lessons that do not use digital technologies.

Evidence of reflection (600 words)

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

Unit 3 Evaluating the use of digital technologies to support teaching and learning

Candidates will build on their learning from Unit 2 to develop a deeper understanding of the concepts and principles of teaching with digital technologies they engaged with so that they can achieve the following learning outcomes.

Learning outcomes

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

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

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

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

Learning outcomes and key questions

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

- What are the advantages and disadvantages of different ways of evaluating the effectiveness of a particular digital technology in supporting teaching and learning?
- Are the two learning activities chosen starters, main activities or plenary activities?
- How did you choose which digital technologies to use for each learning activity?
- Is the purpose of using specific digital tools for each learning activity clear?
- Do the chosen digital technologies allow students to achieve the learning objectives?

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

- Why is it important to have feedback from colleagues and students?
- How are you going to gain feedback from colleagues?
- How are you going to gain feedback from students?
- Which students are you going to gain feedback from?
- How are you going to analyse the feedback so that it can inform future planning?

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

- How important do you think it is to relate your practice of using digital technologies for teaching and learning to concepts, principles and theories?
- As well as more generic learning theories, what theories related to using digital technologies have informed your practice throughout the Certificate, and why?
- What evidence have you given that supports concepts, principles and theories related to using digital technologies to support teaching and learning?
- Why are you now going to make digital technologies an integral part of your own teaching?
- How are you now going to make digital technologies an integral part of your own practice?

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

- What are the benefits and challenges of working with colleagues when designing teaching and learning activities using digital technologies?
- How will you continue to work with colleagues when designing teaching and learning activities using digital technologies?
- Why do you think that working with colleagues from other schools to design learning opportunities using digital technologies will benefit your students?
- How are you developing the Cambridge learner and teacher attributes in your professional practice?

The role of the mentor in Unit 3

The mentor will support the candidate in selecting two different teaching and learning activities to focus on. The mentor will hold a discussion with the candidate to support their reflection and evaluation of their use of digital technologies.

Assessment

Candidates will:

- select and analyse two different teaching and learning activities using digital technologies specific to developing different skills
- gather feedback on teaching these activities from a variety of sources
- share with colleagues their experiences of teaching with digital technologies.

In the portfolio, candidates must submit the following.

Evidence of practice – This includes:

- *Module 1: Unit 3 Teaching and Learning Activity Log*
- *Module 1: Unit 3 Teaching and Learning Activity: Observer Feedback*
- *Module 1: Unit 3 Collaboration with colleagues.*

Evidence of learning (400 words)

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.

Evidence of reflection (800 words)

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.

Assessment criteria

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

1 Understanding teaching and learning with digital technologies.
2 Developing thinking and practice in teaching with digital technologies.
3 Analysis and discussion.
4 Communication and presentation.

DISTINCTION	
Understanding teaching and learning with digital technologies	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.
Developing thinking and practice in teaching with digital technologies	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.
Analysis and discussion	Analyses questions and issues arising from study, enquiry, 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 the analysis and discussion. Well-structured work.
Communication and presentation	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	
Understanding teaching and learning with digital technologies	Demonstrates a broad understanding of relevant concepts and principles, and is able to apply these in a meaningful way to own practice.
Developing thinking and practice in teaching with digital technologies	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.
Analysis and discussion	Analyses questions and issues arising from study, enquiry 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 discussion and analysis. Structured approach to analysis and discussion.
Communication and presentation	Presents ideas, arguments and discussions in an orderly and generally consistant 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.

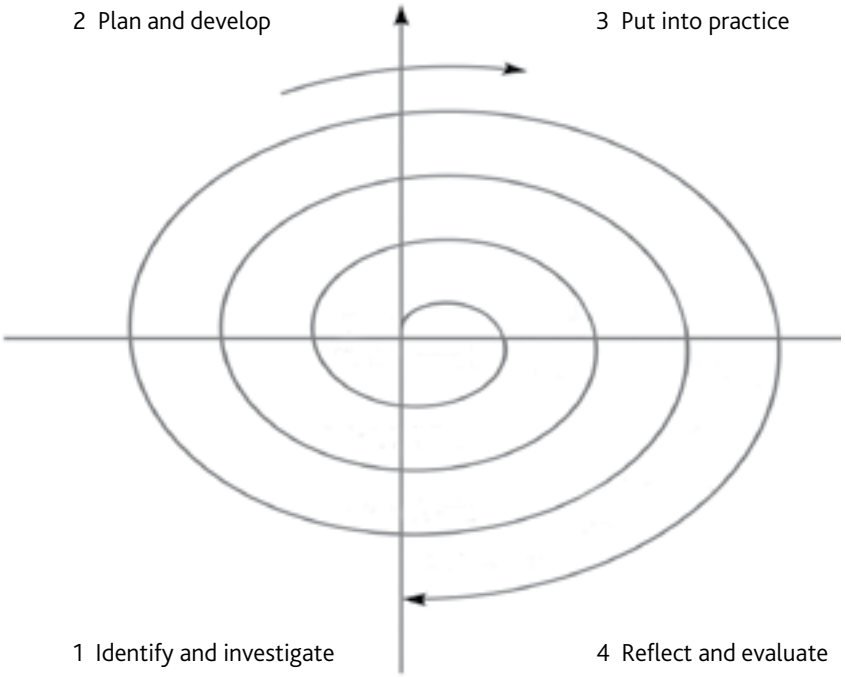
FAIL	
Understanding teaching and learning with digital technologies	Demonstrates inadequate or poor understanding of relevant concepts and principles. Application to own practice may be very limited, inadequate or inappropriately applied.
Developing thinking and practice in teaching with digital technologies	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 and principles to own practice.
Analysis and discussion	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.
Communication and presentation	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.

3 Diploma in Teaching with Digital Technologies

Introduction to the Diploma

Aims

The Cambridge International Diploma in Teaching with Digital Technologies is built on a spiral of learning and development. By reflecting on and evaluating the experiences in each module, further areas for development are identified, and the cycle begins again, this time incorporating new understanding and capabilities. Conscious engagement with this spiral of development results in higher-quality teaching.



In the Diploma, candidates will have the opportunity to:

- understand principles, concepts and issues concerning using digital technologies to support learning, and relate these critically to their own practice
- critically engage with educational theory and research evidence to inform and develop their professional thinking concerning digital technologies in education
- improve their ability to reflect on and evaluate the effectiveness of digital technologies in supporting learning, and to adapt their planning and teaching as appropriate
- develop their confidence to experiment and innovate with a growing range of opportunities offered by digital technologies
- develop their ability to reflect on their own experiences, and those of others, of using digital technologies, so that they can critically assess using such technologies in teaching and learning
- develop their confidence in sharing their practice with fellow teachers, and their ability to select, adapt and use ideas from the wider educational community, including their own students.

Candidates can work towards the Diploma at their own pace, depending on their priorities and circumstances. Certification provides an international quality mark, enhancing their professional profile, and opening pathways for their further professional and career development.

Structure

The Diploma comprises the same Module 1 as the Certificate plus two additional modules related to practice:

Module 2	Developing reflective practice in teaching with digital technologies
Module 3	Reviewing the impact of digital technologies in education

Candidates must achieve a Pass in Module 1 (Certificate programme) to progress to Module 2. Modules 2 and 3 will deepen and extend their knowledge, understanding and skills, and lead to the award of the Diploma. Candidates must pass Module 2 before entering Module 3.

Each module is set out in terms of its learning outcomes, key questions, assessment approach and evidence requirements. Assessment criteria appear at the end of this section.

- Each **learning outcome** is a statement that defines the expected goal of a curriculum, in terms of demonstrable skills or knowledge that will be acquired by the candidate.
- The **key questions** show professional learning related to each learning outcome. These questions will support the candidate as they explore the knowledge required to meet the learning outcome.
- The **assessment approach and evidence requirements** explain how candidates can show that they have achieved the learning outcomes.
- The **assessment criteria** are used by Cambridge International examiners in their judgements on the quality of the evidence presented. They specify what the candidate is expected to do in order to demonstrate that they have achieved a learning outcome.

Module 2 Developing reflective practice in teaching with digital technologies

In this module candidates will develop their classroom practice, informed by relevant theories, concepts and principles of teaching with digital technologies, so that they can achieve the following learning outcomes.

Learning outcomes

M: Plan a coherent scheme of learning that includes digital technologies to support teaching and promote learning.

N: Plan lessons that are coherent, supported by appropriate digital technologies and have clear links to prior learning.

O: Teach lessons that are inclusive, using digital technologies that are effectively managed and develop students' learning.

P: Teach lessons in which the learning is often differentiated using a variety of strategies and digital technologies that support active learning.

Q: Teach lessons using Assessment for Learning (AfL) strategies to help students learn more effectively.

R: Evaluate lessons to determine the effectiveness of the students' learning and the use of digital technologies and their own practice using feedback from their mentor and reflection.

Learning outcomes and key questions

Learning outcome M: Plan a coherent scheme of learning that includes digital technologies to support teaching and promote learning.

- What do you need to consider when designing a scheme of learning that includes digital technologies?
- Which skills does your scheme of learning develop?
- How did you select the specific digital technologies that are included in your scheme of learning?
- Is there a good balance of digital technologies to support teaching and to promote learning within your scheme of learning?
- Which concepts, principles and theories did you refer to when designing your scheme of learning?

Learning outcome N: Plan lessons that are coherent, supported by appropriate digital technologies and have clear links to prior learning.

- What do we mean by "appropriate" when explaining how digital technologies support teaching and promote learning?
- What do we mean by a 'coherent' lesson?
- What strategies can you use to determine students' prior learning?
- How can you ensure that lessons are coherent?
- How can you assess whether learning has happened from one lesson to the next?

Learning outcome O: Teach lessons that are inclusive, using digital technologies that are effectively managed and develop students' learning.

- Why might digital technologies help promote an inclusive learning environment?
- How do you ensure that all students are engaged and supported in a lesson?
- What do we mean by suitable classroom management strategies?
- What classroom management strategies are needed when using digital technologies to promote learning?
- How can digital technologies both challenge and support students?

Learning outcome P: Teach lessons in which the learning is often differentiated using a variety of strategies and digital technologies that support active learning.

- What do we mean by "'differentiated' learning?
- Why is it important that you differentiate learning?
- What strategies can you use to differentiate learning when using digital technologies?
- How can you ensure that all students are appropriately challenged?
- How can you assess progress towards the learning objectives when differentiating learning?

Learning outcome Q: Teach lessons using Assessment for Learning (AfL) strategies to help students learn more effectively.

- Why do students need to know and understand how their learning is progressing and what they need to do in order to develop?
- How can digital technologies help with AfL?
- Which digital technologies are you using in your scheme of learning for AfL?
- How are you providing feedback to students on their progress and achievement?
- How has the information gained from formative assessment impacted your scheme of learning?

Learning outcome R: Evaluate lessons to determine the effectiveness of the students' learning and the use of digital technologies and their own practice using feedback from their mentor and reflection.

- What evaluation tools and techniques are useful for evaluating lessons in your scheme of learning and your own practice of using digital technologies for teaching and learning?
- What action are you going to take to develop your practice of using digital technologies for teaching and learning?
- What strengths, relating to the use of digital technologies, have you identified in your scheme of learning?
- Which aspects, relating to the use of digital technologies, do you think need adapting in your scheme of learning?
- How can the evaluation of your scheme of learning be enriched by the experiences of colleagues?

The role of the mentor in Module 2

The mentor will support the candidate in choosing two lessons to be observed from their scheme of learning. The mentor will hold a pre-lesson discussion and then observe the candidate delivering each lesson. During the post-observation discussion, the mentor will give feedback to the candidate on the lesson and encourage the candidate to reflect on how effective the lesson was in supporting students in meeting the stated outcomes. The mentor will help the candidate identify key strengths as well as areas for improvement in their teaching with digital technologies.

Assessment

Assessment in Module 2 focuses on the development of candidates' classroom practice, which is informed by relevant theories, concepts and principles of teaching and learning using digital technologies.

Candidates must plan, prepare and teach from a scheme of learning within their overall teaching programme. They should develop or select the scheme of learning that is most relevant and interesting to themselves, their students and to their school context, and which puts forward innovative uses of digital technology. From within the scheme of learning candidates must plan, teach and evaluate two lessons. Their mentor must observe both lessons. There should be sufficient time between the first observed lesson and teaching the second lesson for candidates to reflect on their mentor's feedback to help them learn and further develop their use of digital technology. The focus of both observed lessons should be on new ideas and approaches to learning and on teaching using digital technologies.

Candidates will:

- plan and teach a sequence of learning that:
  - occupies a minimum of 10 hours of contact time
  - consists of a minimum of five consecutive lessons, each of 40–120 minutes' duration
  - is with the same group of students, with a minimum of six students in the group
  - includes a variety of digital technology which supports learning
- plan two lessons from the sequence of learning
- teach the two lessons
- obtain feedback from their mentor for each lesson.

In the portfolio candidates must submit the following.

Evidence of practice – This includes:

- a *Module 2: Scheme of learning* that includes a brief explanation of the significant changes that will be made to the plan in the next cycle of learning
- *Module 2: Lesson Plan* for each of the two observed lessons
- *Module 2: Observer Feedback Form* for each of the two observed lessons
- one actual example of a *Module 2: Learning Activity* used in one of the two lessons; the activity should provide evidence of the use of digital technology that makes the learning more inclusive
- one actual example of a *Module 2: Formative Assessment Activity* used in one of the two lessons; the activity should provide evidence of the use of digital technology being tried out to more effectively support and monitor the students' learning.

Evidence of learning (1600 words)

1 Explain how you planned the scheme of learning to meet both curriculum and student needs while incorporating new uses of digital technology.
2 Explain the concept of inclusive learning and the impact your understanding had on the planning, preparing and teaching of the two observed lessons using digital technology.
3 Discuss why there was an emphasis on using digital technology to develop deeper learning in your classroom practice.

Evidence of reflection (2000 words)

1 An evaluation of the highlights and challenges involved in designing a scheme of learning that includes digital technologies to support teaching and promote learning.
2 An evaluation of the two lessons:
   - focusing on the role of digital technologies
   - highlighting what worked well and why, and what did not work well and why
   - explaining what developments should be made in future practice.
3 An evaluation of the scheme of learning as a whole, focusing on the issues experienced when using digital technologies and their impact on the quality of teaching and learning.
4 An evaluation of your professional practice, which uses feedback from a range of sources, including colleague and student feedback, in order to identify strengths and aspects that need further development.

Module 3 Reviewing the impact of digital technologies in education

In this module candidates will reflect on teaching with digital technologies through a practitioner inquiry so that they can achieve the following learning outcomes.

Learning outcomes

S: Use reflective thinking skills to identify effective aspects of classroom practice and those that require further improvement.

T: Carry out practitioner inquiry to improve own practice in using digital technologies for teaching and learning.

U: Plan and teach a lesson using digital technologies specifically designed to improve an aspect of classroom practice as well as meeting curriculum requirements.

V: Analyse and evaluate learning concepts, theories and research literature that informs understanding of actual classroom practice and how it can be improved.

W: Analyse feedback and data collated from different sources to inform reflective practice.

X: Critically evaluate what impact a change in classroom practice has had on own teaching practice and student outcomes as a result of practitioner inquiry.

Learning outcomes and key questions

Learning outcome S: Use reflective thinking skills to identify effective aspects of classroom practice and those that require further improvement.

- Why should teachers be continually reflecting on their classroom practice?
- What are the differences between 'reflection in action' and 'reflection on action'?
- How does reflective thinking help to identify an aspect of classroom practice that requires further improvement?
- Why is the support, advice and guidance from a mentor important in identifying effective aspects of classroom practice and those that require further improvement?

Learning outcome T: Carry out practitioner inquiry to improve own practice in using digital technologies for teaching and learning.

- Why is the process of practitioner inquiry used to develop a teacher's practice?
- How is the four-stage cycle of a practitioner inquiry used to develop and improve a specific area of a teacher's practice?
- Why is it important to engage with appropriate educational and research literature when carrying out a practitioner inquiry?
- What barriers or constraints is a teacher likely to face when carrying out a practitioner inquiry to improve classroom practice?
- What are the advantages and limitations of using the process of practitioner inquiry to develop and improve a specific area of a teacher's practice?

Learning outcome U: Plan and teach a lesson using digital technologies specifically designed to improve an aspect of classroom practice as well as meeting curriculum requirements.

- What factors should be considered when creating a lesson plan that is designed to improve an aspect of classroom practice but must also meet curriculum requirements?
- How does having deep understanding of how learning happens and a good awareness of students' needs help to ensure the required outcomes from a lesson are achieved?
- What should be the focus of mentor feedback when observing a lesson designed to improve an aspect of classroom practice?
- What methods can be used to obtain rigorous student feedback on the aspect of classroom practice being improved?

Learning outcome V: Analyse and evaluate learning concepts, theories and research literature that informs understanding of actual classroom practice and how it can be improved.

- Why is it important for a teacher to be able to articulate the principles of teaching and learning that underpin their classroom practice?
- How has a greater understanding of the principles of teaching and learning made an impact on your classroom practice and the students' learning?
- Why should teachers read, analyse and critically evaluate appropriate educational and research literature?
- How does the process of practitioner inquiry help a teacher to probe, explore, question and challenge a learning concept or theory more deeply?

Learning outcome W: Analyse feedback and data collated from different sources to inform reflective practice.

- What sources of feedback and data can be obtained when carrying out the practitioner inquiry?
- Why is it important to use a wide range of sources to obtain practitioner inquiry feedback and data?
- How can the feedback and data from practitioner inquiry be collated and analysed to inform the teaching and learning process?
- How can the feedback and data from practitioner inquiry be collated and analysed to make it more understandable and communicable to a wider audience?

Learning outcome X: Critically evaluate what impact a change in classroom practice has had on own teaching practice and student outcomes as a result of practitioner inquiry.

- How can you measure, monitor and compare students' learning progress over time?
- How valid and reliable are these measurements?
- How can this data be supported by other evidence?
- How can the outcomes from practitioner inquiry be used to inform the next steps in teaching and learning as part of professional development?
- What impact has the change in classroom practice had on your students' learning?

The role of the mentor in Module 3

Once the candidate and mentor have agreed the area of interest, the mentor will carry out a discussion with the candidate regarding their reason for choosing the area of interest they would like to explore. The mentor will then observe the presentation and take part in the debate that follows the candidate's presentation of their findings to their peers. The mentor will observe the candidate in their practice and support them in developing their professional development plan.

Assessment

Assessment in Module 3 requires candidates to use reflective practice and collaborative skills to develop **one** specific aspect of classroom practice that requires improvement.

The candidate will investigate an aspect of their practice. They will work with their mentor and colleagues and carry out practitioner inquiry.

A candidate's mentor will support the candidate in choosing one aspect from the list below:

1 Using digital technology to develop collaboration skills
2 Differentiating learning more effectively with digital technology
3 Using digital technology to develop students' metacognition skills
4 Developing students' digital research skills
5 Using digital technology to support AfL strategies
6 Developing students' problem-solving skills with digital technologies
7 Using digital technologies to develop students' independent learning skills
8 Managing lessons and student behaviour more effectively when students use digital technologies
9 Language awareness using digital technologies

Practitioner inquiry is based on a cycle of learning and reflection. Candidates will need to work through the four stages in an organised manner. The stages in the practitioner inquiry are explained below.

Stage	What?	Who?	How?
Plan	• What area of teaching practice will I investigate? • What question can I pose to keep a focus on the aspect of practice being improved? • How will I approach the practitioner inquiry? • How will I research the theoretical concepts?	Candidate Candidate inquiry group Mentor	*Module 3: Summary of Collaborative Learning*
Teach	• How will I ensure the lesson will meet the planned inquiry question? • What will be the focus of the observation? • What feedback will I capture?	Candidate Mentor	*Module 3: Lesson Activities Review* *Module 3: Observer Evaluation Form* *Module 3: Student Feedback Form*
Review	• What methods of collecting data will I use? • How will I analyse and present the data? • How will I share my findings with colleagues and interested parties?	Candidate Candidate inquiry group Mentor Peers School Leadership	Presentation: *Practitioner inquiry findings*
Reflect	• How will I embed my findings into my practice? • What other professional development will I carry out in the future to support my practice?	Mentor	*Module 3: Professional Development Plan* *Module 3: Summary of Collaborative Learning*

In their portfolio candidates will submit the following.

Evidence of practice – This includes:

- *Module 3: Lesson Activities Review* that incorporates the practitioner inquiry question
- *Module 3: Observer Evaluation Form* for the taught lesson
- *Module 3: Student Feedback Form* for the taught lesson
- a presentation (created in a software program such as PowerPoint, with a maximum of five slides) of practitioner inquiry findings that was presented to their mentor and colleagues
- *Module 3: Professional Development Plan* agreed with mentor
- *Module 3: Summary of Collaborative Learning*.

Evidence of learning and reflection (3600 words)

1 A justification of why teachers need to develop their reflective thinking skills to improve their classroom practice.
2 An explanation of how you used the process of practitioner inquiry to develop an aspect of classroom practice identified as requiring further improvement.
3 A critical analysis of the learning theories and literature that you used during your practitioner inquiry.
4 A critical evaluation of the findings from the practitioner inquiry process to assess the impact the aspect of practice being developed has had on own teaching practice and the students' learning.
5 A critical evaluation of the knowledge and skills you have developed during the Diploma programme and what the candidate intends to develop in his or her future professional practice to improve teaching practice that will enable students to learn more effectively.

Assessment criteria

Candidates will be graded for each module according to the following criteria, applied to the portfolio of evidence as a whole:

1 Understanding teaching and learning with digital technologies.
2 Developing thinking and practice with digital technologies.
3 Analysis and discussion.
4 Communication and presentation.

To achieve a Distinction in the Diploma, a candidate must achieve Distinction in at least two modules.

DISTINCTION	
Understanding teaching and learning with digital technologies	Demonstrates a detailed, accurate and well-informed understanding of key concepts and principles, with some evaluation of different ideas or approaches. Evidence of some sustained critical analysis and evaluation in their application to both their own and others' practice.
Developing thinking and practice in teaching with digital technologies	Evidences effective practice in detail and with insight, and with awareness and appropriate analysis of how different theories and principles apply to practice. Well-developed application of a number of theories and principles to own practice. Well-developed reflective evaluation of own practice and specific ways of learning from experience.
Analysis and discussion	Analyses, with insight and in detail, questions and issues drawn from relevant and topical studies, enquiries and experience. Relevant and appropriately depicted examples drawn from well-established evidence. Range of different and relevant information sources to inform analysis and discussion. Well-structured approach.
Communication and presentation	Presents ideas, arguments and information in a well-structured, consistant and clearly expressed manner. Presentation of work is highly professional, and views/opinions supported by external reference to relevant sources. Academic conventions followed consistently throughout the work, with referencing to published or other accepted sources of evidence that are current.

PASS	
Understanding teaching and learning with digital technologies	Demonstrates a sound and informed understanding of key concepts and principles, with an awareness of different ideas or approaches. Analyses and evaluates application of key concepts and principles to both their own and others' practice.
Developing thinking and practice in teaching with digital technologies	Evidences effective practice with detail, in some areas. Thorough and informed understanding of how different theories and principles apply to practice. Sound application of theories and principles to practice. Evidence of reflective evaluation of own practice, and some insight into learning from experience.
Analysis and discussion	Analyses questions and issues arising from appropriate studies, enquiries and experience, appropriately and with relevance. Evidence of use of different information sources to support discussion and analysis. Structured approach to analysis and discussion.
Communication and presentation	Presents ideas, arguments and information in a well-ordered manner, with sound levels of consistency and expression. Professional presentation of work, with use of external sources of evidence. Academic conventions followed, with use of accepted referencing conventions.

FAIL	
Understanding teaching and learning with digital technologies	Demonstrates inadequate or poor understanding of relevant concepts and principles. Application to own and others' practice may be limited, inadequate or inappropriately applied. Application to others' practices may be absent.
Developing thinking and practice in teaching with digital technologies	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 and principles to own practice.
Analysis and discussion	Descriptive approach, with some inaccuracies and misunderstandings in places. Opinions and views expressed, but poor or inappropriate links to evidence and/or relevant examples. Work likely to be poorly organised and structured.
Communication and presentation	Work demonstrates weaknesses in presentation and may be poorly structured and not presented in a professional manner. Opinions may be given without any attempt to provide support from other accepted external sources.

4 Cambridge ePortfolio Platform, PDQ Connect

What is an ePortfolio?

An ePortfolio is a purposeful collection of information and digital artefacts that demonstrates development or evidences learning outcomes, skills or competencies. It is a new way that Cambridge International can support candidates in collating and submitting their evidence of learning, practice and reflection.

Why use PDQ Connect?

The scope of what can be submitted as part of an ePortfolio for assessment is wide ranging. Candidates can submit a variety of artefacts, for example, graphics, pictures, stories, journals or projects. PDQ Connect provides candidates with lots of ways to use feedback from assessment to support their learning and reflection. The ability to collect, reflect and connect aligns with assessment-as-learning principles. These cognitive skills are highly valued and promote lifelong learning and the development of reflective practitioners.

What learning methods can be included in an ePortfolio?

PDQ Connect can be used in the following ways.

- Collect: Organise digital information and the format it will be shown in.
- Select: Select artefacts which add value to the portfolio and meet the qualification requirements.
- Curate: Select and manage data and research available on the internet.
- Collaborate: Work with other candidates and peers to deepen the learning experience.
- Reflect: A reflective journal tool can capture reflections on practice and learning.
- Feedback: Invite peers, mentors and Programme Leaders to access the portfolio to comment and give feedback.
- Assess: Self-assess and peer assess against the learning outcomes and assessment criteria.

What are the benefits of using PDQ Connect?

Candidates now have an enhanced way of presenting and organising their work and can make use of digital resources in a dynamic way.

Cambridge International is committed to ensuring that all assessments are 'fair, have sound ethical underpinning, and operate according to the highest technical standards' (The Cambridge Approach 2009). Cambridge International expects technology to be used to enhance the assessment process in terms of reliability, validity, accessibility as well as efficiency, and not to dilute its quality (Craven 2009).

- Validity: Assessment should measure what it claims to measure and what it is important to measure; there must be a close fit between the assessment methods and the learning outcomes.
- Authenticity: All assessment practices must have processes in place to ensure that the evidence for assessment is the learner's work.
- Reliability and consistency: Assessment should be capable of generating sufficient evidence for the target level.

5 Glossary

The following definitions apply throughout this syllabus.

Word or phrase	What it means
Achievement	measures the improvement in a learner's performance over a period of time as the result of a process of learning; this is reflected in their grades
Acquisition model of learning	learning is seen as acquiring knowledge and skills through direct instruction
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 teacher; learners are engaged in a variety of learning activities that challenge their thinking
Aim	a broad statement of intent indicating what the teacher must teach and the learners must learn during a process of learning
Assessment	a process through which evidence, produced by a learner, is collected in a planned and systematic way and used to make a judgment about that learner's learning
Assessment criteria	criteria that specify the standard required to achieve a learning outcome
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
Assessment of learning	an alternative term for summative assessment
Attainment	the level or standard reached by a learner at the end of a learning sequence or learning programme that is evidenced by test or examination results
Behaviourism	based on stimulus-response theory in which all learning involves an observable change in behavior
Candidate	the person following a Cambridge Professional Development syllabus
Cognitivism	focuses on how information is received, organised, stored and retrieved by the brain; it involves an understanding of how people think and gain knowledge, skills and understanding
Collaboration	working with one or more colleagues for a particular purpose or to achieve a common goal
Constructivism	A philosophy of learning based on the concept that people construct their own understanding by reflecting on their personal experiences, and by relating the new knowledge with what they already know. Individuals create their own mental-models, known as 'schemas', to make sense of the world. Individuals accommodate new knowledge by adjusting their schemas
Criterion-referencing	an evaluative description of the qualities to be assessed (what a learner knows and can do) without reference to the performance of others

Word or phrase	What it means
Critical evaluation	consideration of the effectiveness, value and validity of an action, process or product; being able to say why something was or was not effective, worthwhile or valid
Critical thinking	the ability, underlying all rational discourse and enquiry, to assess and evaluate analytically particular assertions or concepts in the light of either evidence or wider contexts
Curriculum	the curriculum describes what is to be learned and taught; it is usually presented as syllabi for sequential stages of student learning
Dialogic teaching	a verbal communicative method; the learners are equal partners with the teacher in a process of exchanging ideas
Didactic teaching	model of instruction in which knowledge is imparted or transmitted from the teacher to the learners
Differentiated learning	adapting teaching to suit the needs of different learners for their current level of understanding and performance; the teacher provides appropriate learning activities, support and assessment activities so all learners have opportunities to learn effectively
Evaluate	to judge or determine the quality, importance or value of something
Experiential learning	a process in which learners learn from direct experience
Formative assessment	activity that takes place continuously during a learning programme to support students' learning, monitors their learning progress and helps to inform their future learning and the teacher's teaching practice
Higher-order thinking skills	learners use their critical, logical, reflective, metacognitive and creative thinking skills to analyse, synthesise and evaluate
Humanism	approaches to learning that consider the development of the whole person to be more important than specific subject matter
Inclusive learning	education which is available for everyone; trying to meet the needs of all learners and providing access to education to learners with special needs
Key questions	these show professional learning related to each learning outcome. These questions will support the candidate as they explore the knowledge required to meet the learning outcome
Learner	we use 'learner' in a general, aspirational sense
Learning objectives	these are statements that define the expected goal of a curriculum, course, lesson or activity in terms of demonstrable skills or knowledge that will be acquired by a student as a result of instruction
Learning outcomes	these specify what learners know, understand and/or are able to demonstrate after completing a process of learning
Lower-order thinking skills	remembering, understanding and applying learning
Mentor	an experienced person who supports and assists another person in learning and developing their professional practice

Word or phrase	What it means
Metacognition	this term is used to describe 'thinking about thinking'; it describes the processes involved when learners plan, monitor, evaluate and make changes to their own learning behaviours
Motivation	a person's desire or willingness to participate in the learning process
Norm-referencing	comparing one learner's performance with that of everyone else being assessed
Participation model of learning	creating personal meaning by reflecting on shared experiences and then applying it in different situations
Pedagogy	the study and theory of the methods and principles of teaching
PDQ Connect	an online platform where candidates collate and submit their ePortfolio of evidence
Practitioner inquiry	a cycle of inquiry made by a teacher or leader into their practice with the aim of improving their professional practice and the learners' learning
Reflection in action	reflecting during the experience; thought of as 'thinking on our feet' and making changes as the situation demands
Reflection on action	reflecting after the experience and making changes as a result of retrospective thinking
Reflective account	an account of an event or a process that is not simply descriptive; it addresses evaluative questions as well as how and why questions
Reflective journal	a document in digital or traditional book format can be used to record experiences; it is subsequently used to critically reflect on learning or practice in order to improve future learning or teaching practice
Reflective practice	a process through which one continuously learns from the experience of planning, practice, assessment and evaluation to help improve the quality of teaching and learning over time
Reliability	how well a test consistently measures what it is supposed to measure; reliability exists if repeat marking of a single assessment by a second or third examiner produces the same outcome, or if the learner achieves the same outcome when taking a second version of the same test.
Scaffolding learning	appropriate guidance and support is provided by a teacher or peers to enable a learner to build on their current level of understanding and progressively acquire confidence and independence in using new knowledge or skills
Scheme of learning	also known as a programme plan or scheme of work; an interpretation of a syllabus into a sequence of lessons
Social constructivism	based on the concept that learning happens primarily through social interaction with others such as a teacher and peers
Special education needs	refers to learners who experience learning difficulties that make it harder for them to learn than most children and young people of the same age
Spiral of learning	learners revisit the same subject matter at periodic points in time and in each cycle of learning the knowledge, skills and understanding associated with the subject matter is broadened and deepened
Student	we use this term to refer to the person in the classroom learning from a teacher

Word or phrase	What it means
Success criteria	the key steps or elements a learner needs to evidence in order to meet a learning intention
Summative assessment	typically end-of-learning assessment tasks, such as examinations and tests, to measure and record the level of learning achieved, for progression to the next level or for certification.
Teacher	this is used to refer to anyone holding the position of teacher; it could be the candidate's colleagues or used in a general sense
Tutorial	a short class conducted by a teacher for one learner or a small number of learners, usually focused on personal target-setting and reflection on the learners' own learning

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