Cambridge International Diploma
in Teaching with ICT

For Examination in 2011

Cambridge
Professional
Development

UNIVERSITY *of* CAMBRIDGE
International Examinations
Excellence in education

Syllabus

Cambridge International Diploma in Teaching with ICT
Syllabus code 8995
For examination in 2011

UNIVERSITY *of* **CAMBRIDGE**
International Examinations

Contents

Cambridge International Diploma in Teaching with ICT
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1. Introduction

1.1 Why choose Cambridge?

University of Cambridge International Examinations (CIE) is the world's largest provider of international qualifications. Around 1.5 million students from 150 countries enter Cambridge examinations every year. What makes educators around the world choose Cambridge?

Recognition

Cambridge qualifications are internationally recognised by schools, universities and employers. Learn more at **www.cie.org.uk/recognition**.

Support

CIE provides a world-class support service for teachers and examinations officers. CIE offers Centres a wide range of teacher materials, plus teacher training (online and face-to-face) and candidate support materials. Examinations officers can trust in reliable, efficient administration of exams entry and excellent, personal support from CIE Customer Services. Learn more at **www.cie.org.uk**.

Excellence in education

Cambridge qualifications develop successful students. They not only build understanding and knowledge required for progression, but also learning and thinking skills that help candidates become independent learners and equip them for life.

Not-for-profit, part of the University of Cambridge

CIE is part of Cambridge Assessment, a not-for-profit organisation and part of the University of Cambridge. The needs of teachers and learners are at the core of what CIE does. CIE invests constantly in improving its qualifications and services. We draw upon education research in developing our qualifications.

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1. Introduction

1.2 Why choose the Cambridge International Diploma in Teaching with ICT?

The Diploma is a practice-based qualification for the continuing professional development of practising teachers and trainers[1]. It is for everyone who needs to develop knowledge, understanding and skills in using ICT to support and improve teaching and learning. In today's world of flexible and lifelong learning, all teachers are finding that ICT is becoming pivotal to the teaching and learning process. This Diploma recognises the benefits teachers will gain by becoming more effective in teaching with ICT – not only fulfilling their own professional goals, but also enhancing their learners' capabilities and contributing to the success of their institution.

The Diploma is intended for teachers in educational establishments, training organisations and companies. They can be full-time or part-time. Their teaching role may be their only responsibility, or one of a number of responsibilities they have within their institution. We have designed the Diploma to be flexible, so that candidates from a variety of teaching environments have equal opportunity to demonstrate their skills, knowledge and understanding. These environments can range across:

• teaching subject – from general to technical vocational programmes

• phase – from primary to higher education, or from basic to advanced training

• age of learners – from children to adults.

Candidates can be teaching in CIE programmes such as the Cambridge Primary Programme, IGCSE or International A level, or can be teaching in other international, national or local programmes. Some teachers completing the Diploma may be classed as ICT 'specialists', having direct responsibility for ICT and dedicated ICT skills programmes within their institution; others may be classed as ICT 'generalists', using ICT within their subject teaching. This Diploma is equally relevant to the ICT generalist and the ICT specialist. It is intended for all those who need to:

• become more competent, confident and capable in integrating the use of ICT into their teaching

• use ICT to improve the learning that takes place in their establishments.

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[1]   **Note on terminology**
*Teacher is used as the standard term in the rest of this syllabus, to refer to a person ('teacher', 'trainer', 'lecturer', etc.), responsible for the design, practice, assessment and evaluation of **learning programmes** ('courses', 'training programmes', etc.) consisting of a sequence of planned learning sessions ('lessons', 'workshops', etc.) for **learners** ('students', 'trainees', etc.). Where appropriate, the individual teacher preparing for the Diploma is referred to as the **candidate**.*

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1. Introduction

We have designed the Diploma on the basis of international best practices. The Diploma syllabus and assignments provide a framework through which we can reliably assess candidates in any country. This allows candidates to demonstrate, in the context in which they work, that they can meet the performance standards described in the syllabus. These standards are based on many of the National Educational Technology Standards set out by the International Society for Technology in Education (ISTE) and UNESCO's ICT Competency Framework for Teachers.

Qualification structure

The Diploma has four modules, which correspond to the key stages in the teaching cycle.

Module
Plan the use of ICT in teaching and learning
Manage the use of ICT in teaching and learning
Assess teaching and learning using ICT
Evaluate and embed the use of ICT in teaching and learning

At each stage, candidates need to keep in mind all three interrelated objectives:

•   contributing to institutional development

•   improving own professional practice

•   improving learners' capabilities.

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1. Introduction

Candidates need to apply a systematic and balanced approach to teaching with ICT, as illustrated in the following diagram.

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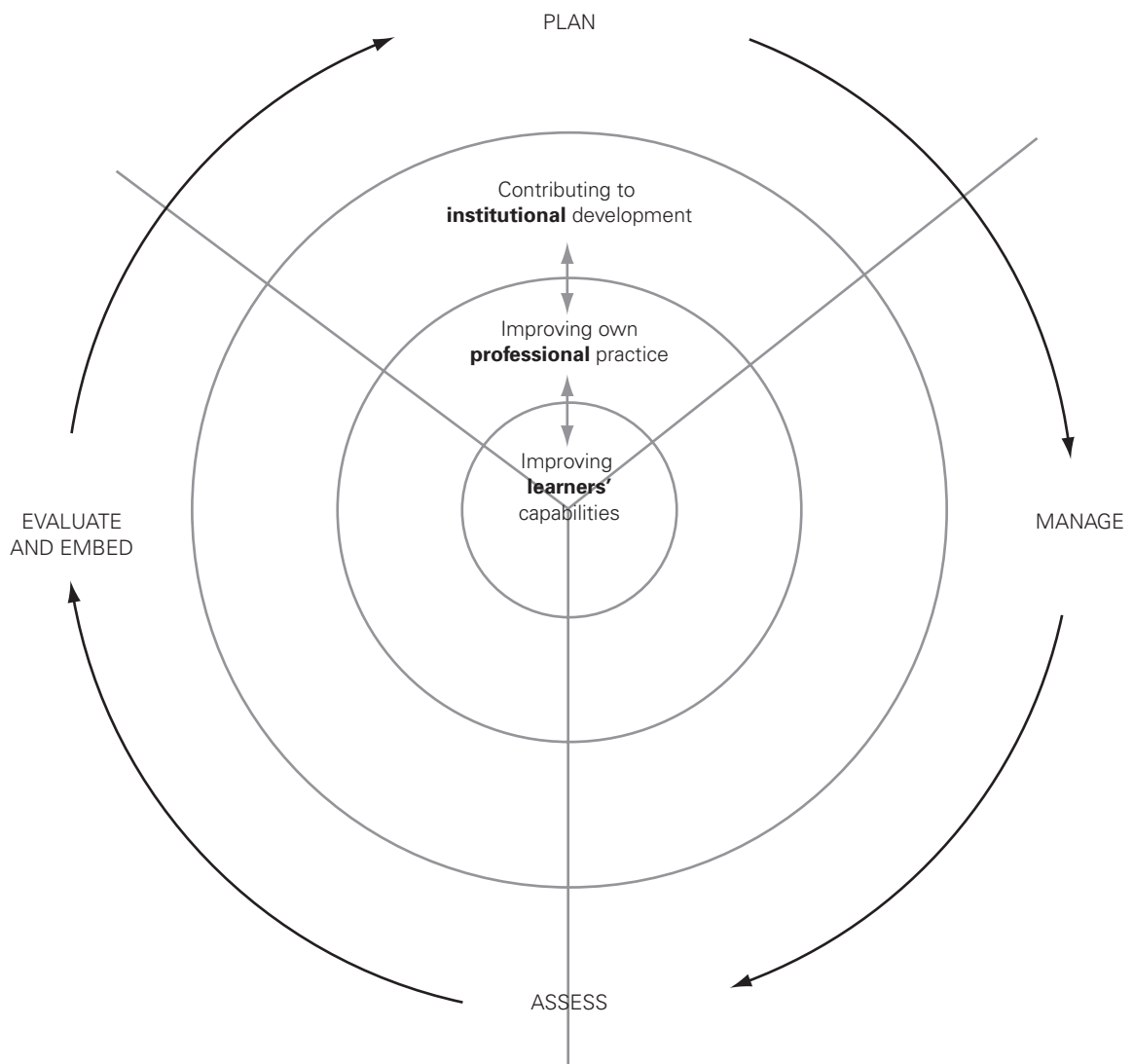
1. Introduction

Preparation

CIE grants eligibility to Centres to run Diploma programmes on the basis of quality criteria. Each Centre must have a programme leader with sufficient experience and expertise. Together with colleagues in the Centre, the programme leader will design and manage the Diploma programme. The programme leader must successfully complete an induction course provided by CIE <u>before</u> CIE can confirm the Centre's eligibility.

A typical Centre programme will consist of a balanced range of professional development activities, appropriate to the needs and circumstances of the candidates and their institution(s). In their preparation for the Diploma, candidates should have sufficient opportunities for appropriate background reading and discussion with other teachers. Reading and discussion will help them to develop relevant knowledge and understanding, and will enrich their reflective practice.

We have designed the Diploma to reflect best practices, and naturally occurring teaching activities (i.e. real experience) will generate much of the assignment evidence presented by candidates. Programmes of both formal and informal training, and the accreditation of prior experience and learning, may also generate some of the assignment evidence.

It is anticipated that as much preparation time as possible is integrated within professional activity. Including such activity, each module is designed to take approximately 45 hours of preparation. This is only a rough guide, but we would not expect candidates to work substantially fewer hours than this in preparation for each module. Candidates should work at their own pace, appropriate to their needs and contexts. The time taken to complete the Diploma will vary from context to context. However, as explained in the *Planning* booklet for the Diploma, there must be sufficient time within the programme for balanced and well-integrated formal and informal professional development activity, individual reading, research, reflection, actual practice and the completion and presentation of assignments. As an example, full-time teachers in schools will find that the Diploma will fit comfortably and effectively over the course of one teaching year.

The Diploma presents rich opportunities to research new ideas and technologies, and to investigate how to put them into practice in the learning environment to support and improve teaching and learning. Candidates can develop fresh teaching-learning approaches using ICT, reflect on them and collaborate with peers in an existing professional work environment.

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1. Introduction

1.3 Cambridge Professional Development Qualifications

The Diploma in Teaching with ICT is one of the suite of Professional Development Qualifications we provide to support continuing professional development.

Our Professional Development Qualifications are focused on practice and integrate performance standards, evidence-based assessment and active professional learning. They conform fully to the principles set out in *The Cambridge Approach*. These principles guide the design and operation of tests and examinations offered by Cambridge Assessment.

Through our network of Centres around the world, candidates can access programmes for the qualifications locally and economically. We ensure that the design and management of the programme is of consistent quality, wherever it may be. The programme leader and team in the Centre ensure that the programme is as relevant as possible to local and individual needs. To enhance accessibility, we offer the qualifications in a growing number of languages in addition to English, e.g. Spanish and Arabic.

We are committed to providing support to Centres, programmes and candidates. We work closely with our Centres, from programme design to the certification of candidates with the professional development qualification of their choice.

Our support includes:

- comprehensive training for the programme leaders in each centre
- detailed documentation to help design fit-for-purpose programmes, appropriate to needs and contexts
- learning resources for candidates in the *Guide* for the qualification
- examiner feedback to highlight achievement and points of development for the future.

The suite of qualifications will expand as we continue to investigate and develop fields of professional practice and development in the world of education and training.

For the latest information:
www.cie.org.uk/qualifications/teacher

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1. Introduction

1.4 How can I find out more?

If you are already a Cambridge Centre

You can express interest in applying for Centre eligibility for this qualification by contacting us at **international@cie.org.uk**.

If you are not a Cambridge Centre

You can find out how your organisation can become a Cambridge Centre. Email us at **international@cie.org.uk**. Learn more about the benefits of becoming a Cambridge Centre at **www.cie.org.uk**.

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2. Assessment

2.1 Method of assessment

There is **one** assignment for **each** module. The assignments are practical, based on day-to-day professional work. For each assignment, candidates use the appropriate CIE assignment template to gather, organise and present relevant evidence.

The assignment template has two parts:

Part A	The steps in thinking, practice and enquiry – reflection before and during action
Part B	The reflective report on the experience as a whole – reflection after action

The template provides the standard framework for assessment for the Diploma. It ensures a common format for the reporting of evidence, although the actual evidence reported will be specific to each candidate. The template is also a helpful checklist of key questions and steps, helping the teacher to plan, carry out and reflect on activities thoroughly and systematically. Candidates can complete Part A **as** they work progressively through the particular stage of the teaching cycle and learning programme, and complete Part B **after** they have finished that stage.

Please note:

1. The evidence for Module 1 (Plan the use of ICT in teaching and learning) must include:
   - A learning session plan which makes use of ICT and is differentiated for at least **two** ability levels.

2. The evidence for Module 2 (Manage the use of ICT in teaching and learning) must include:
   - A visual representation of the arrangement of ICT resources and the learning materials the candidate uses for **both** of the whole group teaching occasions.
   - A visual representation of the arrangement of the ICT resources and samples of the learner's work produced for **both** of the small group/individual learning occasions.
   - Observation of performance, during **one** of the whole group teaching occasions, using the CIE Observation Form in the assignment template. A peer (e.g. an experienced colleague or manager) must carry out the observation and be able to provide feedback on the candidate's use of ICT to support teaching and learning during the session.
   - Feedback from **two** learners, during **one** of the small group/individual learning occasions using the CIE Learner Feedback Form. The learners will provide feedback on the use of ICT to support teaching and learning.

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2. Assessment

3. The evidence for Module 3 (Assess teaching and learning using ICT) must include:

    - Samples of the formative assessments the candidate has used with **at least two** learners of different abilities.
    - Samples of the summative assessments the candidate has used with **at least two** learners of different abilities.
    - An example of ICT being used to analyse the attainment or achievement of **a group** of learners over time (a graphical analysis of learner performance over time).
    - Samples of how **at least two** learners have used ICT to assess each other's work.

4. The evidence for Module 4 (Evaluate and embed the use of ICT in teaching and learning) must include:

    - Notes the candidate makes during the lesson observation or professional dialogue.
    - The presentation/report for delivery to management that reflects upon the candidate's experiences of using ICT to support teaching and learning, and suggests ways in which their institution may be able to further engage with ICT and move forward.
    - Feedback from managers/colleagues on the presentation/report the candidate delivered (e.g. notes they made/emails they sent).
    - Samples of the candidate engaging with different colleagues and peers, using a variety of digital age communications and collaborative tools (e.g. screen dumps from social networking sites). They should be engaging with each other to discuss both the benefits of ICT in supporting teaching and learning and the barriers that prevent some institutions being able to embed ICT fully.

Candidates should note that the requirements above are compulsory. If they miss out such essential evidence, they are likely to receive a Fail grade and have to resubmit.

Centres must submit assignments to CIE for external assessment, after ensuring that each assignment conforms to CIE requirements. We do not return submitted assignments to the Centre, so we advise Centres and candidates to keep a back-up copy of each assignment. CIE reserves the right to request further evidence, or to inspect Centres, in cases where there is doubt about the authenticity of submitted work.

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2. Assessment

CIE will award Pass and Distinction grades for successful performance in each Module according to the following grading themes, which are set out in Section 5 of this syllabus:

• integration

• judgement

• problem solving.

To achieve the full Diploma, candidates must successfully complete <u>all four</u> modules.

The full Diploma is also graded Pass or Distinction. For the award of a certificate with Distinction, candidates must achieve at least <u>three</u> Distinctions out of the four modules.

2.2 Sequence

The assignments are intended both to contribute to teaching practice and to be informed by it. Candidates will complete and submit assignments in the sequence of the modules, phased over a period of time. The sequence will be related to the life-cycle of the particular learning programme which provides the context for teaching. Candidates will be applying in practice what they are learning in their Diploma professional development programme.

Candidates should plan and carry out each Diploma assignment drawing on the outcomes and the assessment of the previous assignment. We encourage candidates to submit their assignments for assessment one by one, so that they can benefit from CIE's feedback and progress to the next module with confidence.

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2. Assessment

2.3 Presentation

Candidates must use the templates provided by CIE. The templates correspond to the assignment guidelines described in Section 4 of this syllabus. We have designed them to help candidates by:

- acting as checklists, to ensure that all requirements are addressed
- indicating the amount of evidence and depth of treatment required
- providing a framework for evidence.

Candidates should complete the cover sheet of the assignment template accurately and in full, with the date of submission, their name and CIE unique candidate identifier.

By completing this cover sheet and submitting the assignment for assessment by CIE, the candidate (and the Centre) confirms that the assignment is entirely their own work. The candidate must appropriately reference and acknowledge any work taken from another source.

The assignment template includes an introductory section, in which candidates provide background information about their own contexts. Candidates can indicate, as seems appropriate to them, significant aspects which have particular influence on their work and experience in the assignment. This section is not assessed or judged, and a full curriculum vitae is not required. The CIE examiners find it helpful in understanding a candidate's context to have brief, relevant information about the following aspects:

- **professional background** (e.g. in teaching, within an industry, and/or as a trainer; subject(s) or area(s); length and range of experience)
- **institution** (e.g. type; status; size; location/environment)
- **role and responsibilities** (e.g. full-time or part-time; working as a team member, a leader, or on their own; the programme(s) and function(s) which they are responsible for)
- **learners** (e.g. age; background(s); needs).

In the same section, candidates provide relevant information on their professional development and growth during the Diploma.

The word limits in the Diploma will act as a guide. Candidates and examiners have found that this approximate number of words is sufficient to present relevant information both accurately and concisely. Word limits throughout the Diploma assignments are set with the same intention. We expect candidates, with the support of their Diploma programme, to take professional care over the presentation of their assignments, including keeping to these word limits. If a candidate provides significantly fewer words than specified, it is unlikely that they will provide sufficient depth. If they significantly exceed the word limits, it is likely that they will lose focus.

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3. Syllabus overview

3.1 Module structure

Each module has the following structure:

- **Performance criteria** are listed in sequence (1.1, 1.2, 1.3, etc.) and set out the skills which candidates are required to demonstrate in order to achieve the Module.
- **Knowledge, understanding and skills** are listed at the right of each performance criterion. They indicate the principles, concepts and skills which relate to the performance criteria.
- **Assignment guidelines** are at the end of each module section. The guidelines specify the form and depth of evidence that candidates need to submit.

For example:

1	Performance criteria	Knowledge, understanding and skills
1.1	Conduct a practical enquiry	• Reflect upon the use of ICT in teaching and learning. • Consider how you might apply any changes to your own planning and management of ICT in the classroom, relevant to the local context.

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3. Syllabus overview

3.2 Performance criteria at a glance

1	Plan the use of ICT in teaching and learning
1.1	Conduct a practical enquiry
1.2	Evaluate the benefits of using appropriate ICT resources in specific contexts
1.3	Identify opportunities to use ICT resources to meet specific needs
1.4	Make informed decisions to select appropriate ICT for specific purposes
1.5	Prepare learning activities using ICT
1.6	Organise ICT resources to ensure objectives are achieved
1.7	Promote and model digital citizenship and responsibility
2	Manage the use of ICT in teaching and learning
2.1	Promote and model digital citizenship and responsibility
2.2	Ensure learners can utilise the ICT resources fully
2.3	Structure learning activities to utilise the available ICT resources fully
2.4	Facilitate and inspire student learning and creativity
2.5	Respond to peer feedback
2.6	Respond to learner feedback

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3. Syllabus overview

3	Assess teaching and learning using ICT
3.1	Design and develop digital age learning experiences and assessments
3.2	Collect, manage and evaluate learner data effectively
3.3	Use suitable criteria, methods and procedures to collect information about the effectiveness of ICT used
3.4	Critically analyse the information collected
3.5	Promote and model digital citizenship and responsibility
4	Evaluate and embed the use of ICT in teaching and learning
4.1	Use suitable criteria, methods and procedures to collect and evaluate the effectiveness of ICT to support teaching and learning
4.2	Interact with colleagues to share ideas for improvement
4.3	Engage in professional growth and leadership
4.4	Promote and model digital citizenship and responsibility

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3. Syllabus overview

3.3 Range of ICT resources and applications

Candidates need to be familiar with as wide a range of ICT as possible, and also need to be able to demonstrate during the Diploma the successful and appropriate application of such technology to teaching and learning contexts.

Examples:

Hardware (input, storage, communication and output)

- digital still and film cameras and microscopes
- sound, playback and capture devices
- interactive whiteboards, presentation devices
- mobile computing devices, including mobile phones with internet capability
- external storage devices, including USB memory sticks, external hard drives, CD and DVD readers and writers
- photo printers, labelling machines
- chromo screen technologies, 3D and virtual displays
- digital voting pads and text input devices

Software (applications and templates)

- generic 'office' type programs
- specific curriculum applications
- digital still and moving image editing, 2D and 3D graphical modelling software
- sound editing and manipulation software
- learning platforms, virtual and global networking communities
- blogs (including micro, video and audio), wikis, social networking applications
- website publishing

This list is not exhaustive and will evolve over time, so candidates should endeavour to keep up to date with the latest technology.

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3. Syllabus overview

The **application** of such ICT within effective teaching and learning scenarios is by far the most important issue that candidates should consider. There are many ways in which ICT resources can be applied to teaching and learning, for example:

- Using a multimedia resource to support learning with a whole class or curriculum area.
- Setting up a website to promote individual access to school information (prospectus, classes, teachers, curriculum, extra-curricular activities, etc.) by pupils, parents and the wider community.
- Developing an interactive study support resource to assist learners' preparation for external examinations, by offering guidelines, past examination questions, short multi-choice online testing, etc. for an identified curriculum area.
- Creating an online ICT resource user guide, for a digital camera, video or electronic whiteboard, that uses the multi-media capabilities of the device as part of the presentation by learners to other users.
- Setting up a managed learning environment that offers learners the opportunity to download resources, upload assignments, email teachers for curriculum support and gain access to useful hyperlinks, to further develop self-study.
- Using an interactive foreign language resource, that will provide audio and visual translations for learners, within a particular curriculum area or self-study professional development course.
- Providing a video conferencing teaching module for use with whole groups, to include interactive programs linked to a PC, that participants can share to facilitate collaborative group work across different institutions or curriculum areas.
- Supporting groups or individuals in using desktop publishing, to produce a professional document that a department or institution could use for promotional purposes, with the help of funding via sponsorship from the local community or businesses.
- Facilitating a whole class in creating a detailed and informative presentation, on behalf of the local community, to promote aspects of culture, the arts and the history of the locality in which the institution is based. The presentation should include as many areas of multi-media production as are available to the learners.
- Using a set of computer-controlled devices (in-house, such as 'Lego') to set up an automatic system, e.g. a set of traffic lights, an automatic car park barrier, a burglar alarm.
- Using datalogging equipment to monitor environmental change over time. For example: the change in temperature as ice melts; the change in light in a room over a day; the noise level in different rooms in a building.
- Producing a short animated film by individual learners or small groups, using stop/start digital film recording, to promote a key educational issue such as 'citizenship'.
- Supporting students in producing and running a digital radio show that they can broadcast around the institution from a central area, allowing learners to participate in real-time computer-based learning activities that will promote working across different ages/years, but with a competitive edge.
- Enabling students to design an interactive game that promotes learning, using 'Flash' or other multi-media authoring software.

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- Providing an online blog facility for pupils to exchange ideas and develop their understanding.

- Providing online resources to support study or revision, that learners can download to mobile phones and access on demand.

- Producing a series of digital flipcharts, to use throughout a term with an identified teaching group, that colleagues in the same or a different institution can also share.

- Using digital voting pads, to determine and assess learners' interests or responses within different teaching scenarios.

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4. Module content

4.1 Module 1: Plan the use of ICT in teaching and learning

1	Performance criteria	Knowledge, understanding and skills
1.1	Conduct a practical enquiry	• Reflect upon the use of ICT in teaching and learning. • Consider how you might apply any changes to your own planning and management of ICT in the classroom, relevant to the local context.
1.2	Evaluate the benefits of using appropriate ICT resources in specific contexts	• Determine when to use ICT, when not to use ICT. • Recognise the potential benefits of ICT: • speed and automation; capacity and range; provisionality; interactivity • information handling, e.g. sources, gathering, analysis and presentation • facilities, e.g. searching, sorting, modelling, communicating, calculating • flexibility of tools for creation, collaboration and review
1.3	Identify opportunities to use ICT resources to meet specific needs	• Recognise opportunities to use ICT to: • stimulate creative expression of knowledge and understanding • personalise assessment and reporting • reinforce the acquisition of subject-specific skills and knowledge and ICT skills in relation to: • learners' abilities and motivations • learning objectives • teaching strategies • institutional goals • Consider a range of possible uses to support many facets of teaching and learning, data management and analysis, evaluation, assessment and testing (see examples in Section 3.3).

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4. Module content

1.4	Make informed decisions to select appropriate ICT for specific purposes	• Identify selection criteria, e.g. language, content (relevance to subject/age), user-friendliness, clarity of instructions, interactivity, compatibility with available computer resources, cost, durability and future-proofing. • Use a systematic approach to planning and specification. • Take into account relevant issues, e.g. location, deployment and access; strategies for supporting learners using equipment; health and safety; legal and ethical aspects.
1.5	Prepare learning activities using ICT	• Design or adapt relevant learning experiences, and incorporate digital tools and resources, to promote student learning and creativity. • Use appropriate hardware and software. • Identify differentiated activities and outcomes. • Plan whole group, small group and individual activities. • Specify timescales.
1.6	Organise ICT resources to ensure objectives are achieved	• Optimise use and ensure practical management of ICT in different situations (e.g. one teacher to one learner; one teacher to a small group of learners; one teacher to a large group; several teachers to several learners). • Ensure ease of use and optimum performance, and the deployment of ICT resources within the institution, to facilitate access for all appropriate users, including the use of networks where possible.
1.7	Promote and model digital citizenship and responsibility	• Advocate, model and teach the safe, legal and ethical use of digital information and technology, including respect for copyright, intellectual property and the appropriate documentation of resources.

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4. Module content

Assignment guidelines – Module 1: Plan the use of ICT in teaching and learning

Note on terminology: *in the following guidelines, the candidate is addressed as '**you**'.*

In order to achieve this module, you must:

- Conduct a practical enquiry that will provide opportunities to reflect upon the use of ICT within teaching and learning.

- Identify **two** learning sessions where ICT can be used for all or part of the learning session. One learning session should involve a whole group approach, in which all group members are using similar ICT to work towards the same learning objectives. The other learning session should involve a small group approach, in which each member is carrying out a different activity.

- Evaluate **two** different ICT resources for use by teachers or learners.

- Promote and model digital citizenship and responsibility.

- Produce a learning session plan which makes use of ICT and is differentiated for at least **two** ability levels. The ICT resource planned for the learning session may be used either by the teacher, or by learners, or by both.

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4. Module content

The assignment is in two parts:

Part A:
Part A comprises a series of key activities corresponding to each performance criterion in this module. In responding to the key questions, you should base your evidence on your own experience of planning the use of ICT in teaching and learning. The total length expected for Part A responses is approximately **2000 words**.

Conduct a practical enquiry that examines the use of ICT in teaching and learning (300 words)
For your stated subject area, and in preparation for a learning programme, you must:

- Carry out an investigation, in your own teaching environment, around the innovative and effective use of ICT in teaching and learning.
- Consider how you might apply any changes to your own planning and management of ICT in the classroom, relevant to the local context.

Identifying opportunities for using ICT to support teaching and learning (700 words)
For **each** of the two learning sessions, you must:

- Identify the options for using ICT in relation to the learners' needs and learning objectives.
- Identify a specific and appropriate application of ICT, and show how this will contribute to meeting learners' needs and learning objectives.
- Evaluate the benefits gained from using ICT.
- Justify the decision to use the particular ICT chosen for the learning session.
- Identify the expected outcomes which would not occur (as effectively) without the use of ICT.

Evaluating ICT resources for use by teacher and/or learners (300 words)
For **each** of the two ICT resources, you must:

- Identify the way(s) in which ICT could support teaching and learning.
- Evaluate the ICT resource for use by teacher and/or learners.
- Identify the way(s) in which the teacher and/or learners could use the resource.
- Trial the use of the resource, and identify issue(s) in relation to use by the teacher and/or learners.
- Identify issues related to managing the learning environment, and strategies for dealing with them.
- Make and justify a recommendation on whether or not the resource should be used.

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Promoting and modelling digital citizenship and responsibility

For the whole group learning session, you must:

- Identify e-safety issues that are relevant to the teacher in the planning, production and delivery of a lesson that uses ICT to support teaching and learning. **(200 words)**

For the small group learning session, you must:

- Identify e-safety issues that are relevant to each learner in the use of ICT to support teaching and learning. **(200 words)**

Developing a teaching and learning session plan for using ICT **(300 words)**

For **one** of the learning sessions, you must produce a learning session plan that:

- Identifies learning aims and objectives using ICT.
- Identifies differentiated teaching and learning activities for at least two abilities.
- Identifies differentiated outcomes for at least two abilities.
- Identifies opportunities for developing learners' ICT skills.
- Identifies opportunities for developing learners' other skills.
- Identifies strategies for managing use of ICT effectively.
- Identifies criteria for assessing learners' work and monitoring progress.

Part B: Reflective report

You must produce a report in which you should reflect upon your overall experience in this assignment, in terms of how this may help you to:

- contribute to institutional development
- improve your own professional practice
- improve learners' capabilities.

It would be helpful if the reflective report consists of three distinct sections that address each of these issues. The report should be approximately **1000 words** in length, and not significantly more or less than this.

N.B. Taking into account the word limits for Part A (2000 words) and Part B (1000 words), the whole assignment should be approximately **3000 words**.

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4. Module content

4.2 Module 2: Manage the use of ICT in teaching and learning

2	Performance criteria	Knowledge, understanding and skills
2.1	Promote and model digital citizenship and responsibility	• Address the diverse needs of all learners by using learner-centred strategies and by providing equitable access to appropriate digital tools and resources.
2.2	Ensure learners can utilise the ICT resources fully	• Set up the following arrangements for learning environment and equipment: • hardware and other ICT resources positioned appropriately and set up to work correctly and safely, including opening and closing down, and file and folder organisation • instructions for learners: how-to guides, step-by-step activities, completion exercises, appropriate help systems
2.3	Structure learning activities to utilise the available ICT resources fully	• Produce learning session plans and schemes of work, to share with others or to retain for personal use only, as appropriate. • Recognise how learners' use of ICT can help them to develop other skills (e.g. social skills, team building skills, work-related skills) and incorporate opportunities for such skills development, where appropriate.

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4. Module content

2.4	Facilitate and inspire student learning and creativity	- Promote, support and model creative and innovative thinking and inventiveness. - Engage students in exploring real-world issues and solving authentic problems, using digital tools and resources. - Promote student reflection, using collaborative tools to reveal and clarify learners' conceptual understanding and thinking, planning and creative process. - Model collaborative knowledge construction, by engaging in learning with students and others, in both face-to-face and virtual environments.
2.5	Respond to peer feedback	- Modify and revise your management of ICT strategy to support teaching and learning, based upon peer feedback for a whole group teaching session. - Demonstrate that you are able to incorporate new ideas from peer feedback into subsequent session planning.
2.6	Respond to learner feedback	Reflect upon feedback given by individual learners from a small group teaching session.

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4. Module content

Assignment guidelines – Module 2: Manage the use of ICT in teaching and learning

In order to achieve this module, you must:

- Address the diverse needs of all learners by using learner-centred strategies, and provide equitable access to appropriate digital tools and resources.

- Use ICT in <u>whole group teaching</u> on **two** occasions. On each occasion ICT should be used for a different purpose, and a different type of ICT resource should be used. One of the occasions used for whole group teaching in Module 1 should be used.

- Use ICT to support <u>small group/individual learning</u> on **two** occasions. A different type of ICT resource should be used on each occasion. One of the occasions used for small group/individual learning in Module 1 should be used.

- Respond to peer and learner feedback.

- Submit evidence of the arrangement of ICT resources and learning materials you use for **both** of the <u>whole group teaching</u> occasions.

- Submit evidence of the arrangement of the ICT resources and of the learner's work produced for **both** of the <u>small group/individual learning</u> occasions.

- Submit evidence of peer observation feedback from **one** of the <u>whole group teaching</u> occasions, using the CIE Observation Form provided.

- Submit evidence of feedback from **two** of your learners from **one** of the <u>small group/individual learning</u> occasions, using the CIE Learner Feedback Form.

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The assignment is in two parts:

Part A:
Part A comprises a series of key questions corresponding to each performance criterion in this module. In responding to the key questions, you should base your evidence on your own experience of managing the use of ICT in teaching and learning. The total length expected for Part A responses is approximately **2000 words**.

Promoting and modelling digital citizenship and responsibility   **(100 words)**
For **one** of the small group/individual occasions, you must:

- Identify how equitable access to resources for each of the learners may be managed and monitored.
- Identify how the diverse needs of individual learners will be addressed.

Managing the use of ICT in supporting whole group teaching   **(800 words)**
For **each** of the two occasions, you must:

- Produce a plan, with a rationale, showing the arrangement of the learning environment and ICT resources. You must include a computer-generated plan of the room or a photograph.
- Prepare materials using ICT, in soft and/or hard copy, for use by teacher and/or learners.
- Use ICT resources in delivering a learning session.
- Describe the ICT resources used and the technical skills demonstrated.
- Review how the use of ICT affected the organisation and management of the learning session.
- Provide evidence of the learning materials you produced and used for **both** occasions.
- Be observed by a peer during **one** of the occasions.

Managing the use of ICT in supporting small group/individual learning   **(800 words)**
For **each** of the two occasions, you must:

- Produce a plan, with a rationale, showing the arrangement of the learning environment and ICT resources. You must include a computer-generated plan of the room or a photograph.
- Identify the way in which work carried out using ICT will be integrated with work carried out without the use of ICT.
- Provide support in the use of ICT equipment and contribute to learners' development of skills in using ICT, as needed.
- Identify the ICT skills employed by both the learner and the teacher.
- Use ICT to encourage the development of additional skills, if appropriate.
- Identify the way in which other skills were integrated into the learning session, if appropriate.
- Review the impact of the use of ICT on the organisation and management of teaching.
- Demonstrate outcomes which would not have occurred without the use of ICT.

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- Provide evidence of work produced by learners for **both** occasions.
- Produce learner feedback from **one** of the occasions.

Respond to peer feedback   **(200 words)**

For **one** of the whole group teaching sessions, you must:

- Submit as evidence a completed CIE Observation Form, completed by a peer from your own/neighbouring institution who has observed a whole group learning session where ICT has been used.
- Modify the original learning session plan to reflect how suggestions will impact upon subsequent lessons.

Respond to learner feedback   **(200 words)**

For **one** of the small group/individual teaching sessions, you must:

- Submit as evidence the CIE Learner Feedback Forms completed by your learners.
- Compare and contrast the views of learners by producing a brief report that reflects upon lessons learned and how these will inform future learning session plans.

Part B: Reflective report

You must produce a report in which you should reflect upon your overall experience in this assignment, in terms of how this may help you to:

- contribute to institutional development
- improve your own professional practice
- improve learners' capabilities.

It would be helpful if the reflective report consists of three distinct sections that address each of these issues. The report should be approximately **1000 words** in length, and not significantly more or less than this.

N.B. Taking into account the word limits for Part A (2000 words) and Part B (1000 words), the whole assignment should be approximately **3000 words**.

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4. Module content

4.3 Module 3: Assess teaching and learning using ICT

3	Performance criteria	Knowledge, understanding and skills
3.1	Design and develop digital age learning experiences and assessments	• Provide learners with multiple and varied formative and summative assessments aligned with content and technology standards, and use the resulting data to inform teaching and learning, including providing opportunities for learners to use ICT to engage in peer assessment of their work.
3.2	Collect, manage and evaluate learner data effectively	• Use online assessment facilities, when available and appropriate. • Manage types of learner information (open, shared and closed), e.g. use spreadsheets to analyse performance data within subject area and across the institution. • Compare and contrast learner performance/ achievement, with/without the use of ICT. Use ICT to monitor progress over time. • Demonstrate and use ICT to support peer assessment.
3.3	Use suitable criteria, methods and procedures to collect information about the effectiveness of ICT used	• Use own findings, together with enquiry research methods, to form a hypothesis about relevant ICT resources capable of supporting the effective delivery of teaching and learning within the local context.
3.4	Critically analyse the information collected	• Use data analysis tools to measure the impact of ICT, e.g. on learner performance data. • Recognise the benefits and limitations in practice of using ICT resources.
3.5	Promote and model digital citizenship and responsibility	• Promote and model digital etiquette and responsible social interactions, related to the use of technology and information. • Give due consideration to security aspects of the data and appropriate security systems (e.g. Data Protection Act, encryption).

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4. Module content

Assignment guidelines – Module 3: Assess teaching and learning using ICT

In order to achieve this module, you must:

- Use ICT to undertake the formative assessment of learners on **one** <u>whole group</u> teaching occasion, either from Module 2 or a different occasion.
- Use ICT to undertake the summative assessment of learners on **one** <u>whole group</u> teaching occasion, either from Module 2 or a different occasion.
- Use ICT to critically analyse and evaluate the performance of learners over time on **one** <u>whole group</u> teaching situation, either from Module 2 or a different occasion.
- Use ICT to create opportunities for learners to engage in peer assessment related to formative and summative evaluation of their work on **one** <u>small group/individual learning</u> occasion, either from Module 2 or a different occasion.
- Promote and model digital etiquette and responsible social interactions related to the use of technology and access to personal information, by giving due consideration to security aspects of the data and appropriate security systems.
- Submit samples of the formative assessments you have used with **at least two** learners of different abilities.
- Submit samples of the summative assessments you have used with **at least two** learners of different abilities.
- Submit evidence of how you have used ICT to analyse attainment or achievement of **a group** of learners over time (a graphical analysis of learner performance over time).
- Submit samples of how **at least two** learners used ICT to assess each other's work.

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4. Module content

The assignment is in two parts:

Part A:
Part A comprises a series of key questions corresponding to each performance criterion in this module. In responding to the key questions, you should base your evidence on your own experience of assessing teaching and learning using ICT. The total length expected for Part A responses is approximately **2000 words**.

Using ICT to undertake the formative assessment of learners (400 words)

For **one** whole group learning occasion, either from Module 2 or a different occasion, you must:

- State what is being assessed using ICT, and justify your selection.
- Provide evidence that ICT has been used to formatively assess at least two learners of different abilities over a period of time (e.g. via email, data tracking, VLE entries, photographs, blogs).
- Critically evaluate the contribution that ICT can make towards the formative assessment of learners.

Using ICT to undertake the summative assessment of learners (400 words)

For **one** whole group learning occasion, either from Module 2 or a different occasion, you must:

- State what is being assessed using ICT, and justify your selection.
- Provide evidence that ICT has been used to summatively assess at least two learners of different abilities over a period of time (e.g. use of reporting systems, data analysis tools).
- Describe the assessment criteria employed to ensure that progress and achievement were accurately identified.
- Critically evaluate the contribution that ICT can make towards the summative assessment of learners.

Using ICT to critically analyse and evaluate the performance of learners over time (400 words)

For **one** whole group learning occasion, either from Module 2 or a different occasion, you must:

- State what aspect of learners' performance is being evaluated, and justify your selection.
- Provide evidence that ICT has been used to analyse the attainment or achievement of learners, and provide a graphical conclusion of findings.
- Identify other methods of using ICT to assess the attainment or achievement of learners over time.

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Using ICT to create opportunities for learners to engage in peer assessment **(400 words)**

For **one** <u>small group/individual learning</u> occasion, either from Module 2 or a different occasion, you must:

- State what opportunities are being created, explain how learners will assess each other's work, and justify your selection.
- Provide evidence that learners have been given the opportunity to collaborate with another learner in the group, using ICT to assess that learner's work.
- Identify other ways in which ICT can be used effectively, within a teaching and learning situation, to promote peer assessment.

Promoting and modelling digital etiquette and responsible social interactions **(400 words)**

In consideration of formative, summative and peer assessment using ICT, you must:

- Identify precautions that teachers must take when storing personal data electronically.
- Identify procedures that learners must follow when accessing their own personal data.
- Recognise and acknowledge digital etiquette when using ICT to assess teaching and learning.

Part B: Reflective report

You must produce a report in which you should reflect upon your overall experience in this assignment in terms of how this may help you to:

- contribute to institutional development
- improve your own professional practice
- improve learners' capabilities.

It would be helpful if the reflective report consists of three distinct sections that address each of these issues. The report should be approximately **1000 words** in length, and not significantly more or less than this.

N.B. Taking into account the word limits for Part A (2000 words) and Part B (1000 words), the whole assignment should be approximately **3000 words**.

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4. Module content

4.4 Module 4: Evaluate and embed the use of ICT in teaching and learning

4	Performance criteria	Knowledge, understanding and skills
4.1	Use suitable criteria, methods and procedures to collect and evaluate the effectiveness of ICT to support teaching and learning	• Evaluate and review the benefits of using ICT to support teaching and learning. • Compare and contrast how teaching and learning could be supported without the use of ICT.
4.2	Interact with colleagues to share ideas for improvement	• Participate in local and global learning communities to explore creative applications of technology to improve student learning. • Communicate relevant information and ideas to peers effectively, using a variety of digital age media and formats. • Build on the good practice of others, e.g. investigating others' practice and modifying it into schemes of work, learning session plans.

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4. Module content

4.3	Engage in professional growth and leadership	• Contribute to the effectiveness, vitality and self-renewal of the teaching profession, your own institution and community. • Participate in local and global learning communities to explore creative applications of technology to improve student learning. • Recognise how ICT can be used to: • aid administration, reporting and information transfer • join in professional discussions • locate and access teaching plans and materials. • Evaluate and reflect on current research and professional practice on a regular basis, to make effective use of existing and emerging digital tools and resources in support of student learning. • Consider developments in hardware and resources, and plan for future development and investment.
4.4	Promote and model digital citizenship and responsibility	• Develop and model cultural understanding and global awareness by engaging with colleagues and students of other cultures, using digital age communications and collaborative tools.

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4. Module content

Assignment guidelines – Module 4: Evaluate and embed the use of ICT in teaching and learning

In order to achieve this module, you must:

- Evaluate **two** learning sessions, delivered using ICT. One session should critically examine the use of ICT to support <u>whole group teaching</u>, whilst the other session should critically examine the use of ICT to support <u>small group/individual learning</u>. Sessions delivered in Module 2 should be used.

- Carry out a lesson observation or a professional dialogue with another colleague, in order to consider other significant issues relevant to ICT within teaching and learning.

- Prepare a presentation for delivery to management that reflects upon own experiences of using ICT to support teaching and learning, and suggests ways in which their institution could further engage with ICT and move forward.

- Gather feedback from managers/colleagues as a result of delivering the presentation and reflect upon observations and comments made, whilst looking towards the future and one's own practice.

- Engage with a number of different colleagues and peers, using a variety of digital age communications and collaborative tools, to discuss both the benefits of ICT in supporting teaching and learning and the barriers that prevent some institutions being able to embed ICT fully.

- Submit evidence of the lesson observation or professional dialogue (notes you made at the time).

- Submit a copy of the presentation/report for delivery to management.

- Submit evidence of the feedback from managers/colleagues on the presentation/report you delivered (notes they made/emails they sent you).

- Submit evidence (screen dumps or screen shots from social networking sites) of you engaging with different colleagues and peers.

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4. Module content

The assignment is in two parts:

Part A:
Part A comprises a series of key questions corresponding to each performance criterion in this module. In responding to the key questions, you should base your evidence on your own experience of evaluating and embedding the use of ICT in teaching and learning. The total length expected for Part A responses is approximately **2000 words**.

Evaluating the effectiveness of ICT in supporting teaching and learning   **(800 words)**
For **each** of the two learning sessions, you must:

- Evaluate the impact of the use of ICT on meeting specified learning outcomes.
- Compare how the learning sessions actually worked out with how a non-ICT learning session could have operated.
- Review the benefits to teachers and learners of the use of ICT.
- Review any disadvantages of the use of ICT.
- Identify any improvements that could be made for future learning sessions.

Interact with colleagues to share ideas for improvement   **(400 words)**
You should consider ways in which you could observe at least one other colleague using ICT to support and improve teaching and learning. For example, you could observe them directly within your own institution, analyse a pre-recorded lesson, or use video conferencing. Alternatively, you could carry out a professional dialogue with a colleague within your institution, or with another teacher across a global learning community. You must:

- Carry out a lesson observation or professional dialogue with another colleague and make notes. Endeavour to look for evidence of good practice, innovation and how any issues were overcome. Be prepared to share ideas and reflect upon your own delivery.
- Demonstrate a greater awareness of how ICT can be used to support and improve teaching and learning, reflect upon findings and modify your own learning sessions.

Engage in professional growth and leadership   **(400 words)**
To consider how ICT could be used to help move the whole institution forward, you must:

- Produce a report or action plan for presentation to line managers within your own institution. You can either type the report or use a multi-media presentation.
- Receive critical feedback from colleagues/managers as a result of delivering the presentation.
- Reflect upon feedback, evaluate comments, draw conclusions and modify plans.

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Promote and model digital citizenship and responsibility **(400 words)**

You should develop and model cultural understanding and global awareness by engaging with colleagues and students of other cultures, using digital age communications and collaborative tools. You must:

- Provide evidence of having used ICT to engage with colleagues from another institution within your own country, to discuss the benefits of ICT in supporting teaching and learning.
- Provide evidence of having used ICT to engage with colleagues from another country, to discuss the barriers that prevent some institutions from being able to embed ICT fully.

Part B: Reflective report

You must produce a report in which you should reflect upon your overall experience in this assignment in terms of how this may help you to:

- contribute to institutional development
- improve your own professional practice
- improve learners' capabilities.

It would be helpful if the reflective report consists of three distinct sections that address each of these issues. The report should be approximately **1000 words** in length, and not significantly more or less than this.

N.B. Taking into account the word limits for Part A (2000 words) and Part B (1000 words), the whole assignment should be approximately **3000 words**.

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5. Grading

5.1 Grading themes

The following grading themes apply to all Diploma assignments:

- **Integration**
- **Judgement**
- **Problem solving.**

5.2 Grading criteria

The grading criteria for each of these themes are as follows:

Criteria for Pass	Criteria for Distinction
Integration	
The candidate has demonstrated skills in using ICT to support and improve teaching and learning, taking into account the objectives of institutional, professional and learners' development.	The candidate has demonstrated a high level of skills in using ICT to support and improve teaching and learning, indicating how institutional, professional and learners' development can best be supported in a realistic and resourceful manner.
Judgement	
The candidate has demonstrated skills in making sound professional judgements about the use of ICT to support and improve teaching and learning, on the basis of explicit criteria.	The candidate has demonstrated a high level of skills in making sound professional judgements about the use of ICT to support and improve teaching and learning in application, with an appreciation of the effects these judgements may have on institutional, professional and learners' development.
Problem solving	
The candidate has demonstrated skills in solving immediate problems arising, using ICT to support and improve teaching and learning.	The candidate has demonstrated a consistently thoughtful approach by considering immediate and longer-term problems arising using ICT to support and improve teaching and learning, with regard to institutional, professional and learners' development.

Candidates who satisfy the module performance criteria and the assignment requirements will achieve at least a Pass. A Distinction is awarded on the basis of performance in the assignment as a whole.

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