

Contents

Introduction	1
Getting Started (Whole School Level)	11
Getting Started (other planning contexts)	13
Step 1: Identify Focus	14
Step 2: Gather Evidence	16
Step 3: Analyse and Make Judgements	20
Step 4: Write and Share the Digital Learning Plan	
Step 5: Putting the Plan into Action	
Step 6: Monitor Actions and Evaluate Impact	33
Appendix A - Resources and Supports	35
Appendix B - Template - Digital Learning Plan	48
Appendix C - Development Group	51



Introduction

The Context

The Digital Strategy for Schools 2015-2020, Enhancing Teaching, Learning and Assessment¹ (Digital Strategy) recognises that digital technologies can play a central role in transforming learning, teaching and assessment practices for teachers and students in a high-quality 21st century education system. It was in this context that the Digital Learning Framework (DL Framework) was developed for schools. The DL Framework provides a roadmap to help schools manage the transformation of teaching and learning as a result of new digital technologies.

The Digital Learning Planning Guidelines (DL Planning Guidelines) provide guidance on how the DL Framework can support the creation of a Digital Learning Plan (DL Plan) for each school. Schools are expected to prepare and implement a Digital Learning Plan (formally e-Learning Plan) as part of the Whole School Plan. The guidelines can also be used to support subject department and individual teacher planning and to promote digital learning at programme and cross-curricular levels. The ultimate goal for the DL Planning Guidelines is to guide schools in embedding digital technologies into all areas of school activity.



Figure 1, Digital Learning Planning Context

^{1.} Digital Strategy for Schools, https://www.education.ie/en/Publications/Policy-Reports/Digital-Strategy-for-Schools-2015-2020.pdf

^{2.} http://www.pdsttechnologyineducation.ie/en/Planning2/e-Learning-Handbook/Introduction.pdf

Though these Guidelines will refer to the 'school' throughout, the word 'school' can be interchanged with 'teacher,' 'subject department' or 'groups of teachers' depending on the context in which it is used. The Guidelines are applicable for use by both primary and post primary schools and the term "student/pupil/learner" are interchangeable depending on the level and context.

These DL Planning Guidelines replace the *Planning and Implementing* e-Learning in your School Handbook for Principals and ICT Co-ordinating Teachers (eLearning Planning Handbook)².

The Purpose of these Guidelines

The purpose of these Guidelines is to help practitioners take ownership of the use of digital technologies in their school and to ask:

- How well are we doing?
- How do we know how we are doing?
- What evidence do we have in support of our view?
- •How can we find out more about our practices in relation to learning, teaching and assessment?
- What are our strengths?
- What are our areas for improvement?
- How can we improve?

The DL Planning Guidelines set out a step-by-step process to assist those using the DL Framework to consider how they use a range of digital technologies for Teaching and Learning and Leadership and Management. This includes a reflection on current practice and the identification of areas where practice can be enhanced further, leading to the development and implementation of a DL Plan. The DL Framework is the key document to consider when a school is embarking on developing a DL Plan.

Why Develop a Digital Learning Plan?

Developing a DL Plan provides many benefits in working towards the embedding of digital technologies into learning, teaching and assessment. Specifically, developing a digital learning plan will:

• Provide an opportunity for the school community to develop an agreed vision for digital learning within the school.

- Add a significant dimension to the Whole School Plan.
- Document how digital technologies will support learning, teaching and assessment strategies in the school.
- Provide a focused digital learning implementation strategy for the school to help it realise the school's vision for learning in the 21st century.
- Assist the school in strategically allocating any funding received.

What is Digital Learning?

The Department of Education and Skills (the Department) used the term ICT in previous digital strategies and planning handbooks. In keeping with current international practice, the term "digital technologies" is now being used in preference to the term "ICT". Digital learning refers to the embedding of digital technologies within learning, teaching and assessment practices in a school. The list of digital technologies is constantly evolving, and they have the potential to support a range of activities across the school.

Digital technologies can be defined as electronic tools, systems, devices and resources that generate, store or process data. These include social media, online games and applications, multimedia, productivity applications, cloud computing, interoperable systems and mobile devices.³ The aim of the DL Framework is to embed digital technologies into the everyday life of the school, to support *Teaching and Learning* as well as *Leadership and Management*.

Digital Learning is any form of learning that is facilitated by digital technologies or by an instructional practice that makes effective use of technology⁴. Others have described it as "learning facilitated by digital technology that gives students some element of control over time, place, path and/or pace". Thus, it is a multi-faceted concept and one that varies depending on the digital technologies being used and the associated learning context.

The use of digital technologies in schools is sometimes viewed as something extra, an activity that learners engage in outside of their regular school activities. The Digital Strategy stresses the need to embed digital

^{3.} What are digital technologies? http://www.education.vic.gov.au/school/teachers/support/Pages/elearningcurriculum.aspx#link44

^{4.} Ibic

 $^{5.\,}Definition\,from\,Digital\,Learning\,Now!\,and\,the\,Florida\,Virtual\,School$

technologies within learning, teaching and assessment and notes that all teachers will be expected to do so going forward.

Digital learning can:

- Make the learners' experience more engaging and foster deep learning
- Help learners assume control over the learning situation, e.g. by individualising the pace with which new material is introduced, or by providing immediate feedback on how well they are learning
- Support collaborative learning, which provides opportunities for deep learning by having learners "teach" to each other new concepts that they have learned, and interact with other students and teachers in different countries⁶;
- Enable learners to grasp concepts more quickly and fully, to connect theory and application more adeptly, and to engage in learning more readily
- Enhance teaching approaches, enabling the co-construction of knowledge while facilitating the widespread creation of innovative ways to build and share knowledge
- Facilitate new ways of learning and create possibilities beyond the limits of our current imagination.⁷
- Develop key skills to help young people become engaged thinkers, active learners' problem solvers, skilled communicators and knowledge constructors.

It can be the case that digital technologies are only used in limited ways, sometimes as a substitute for the use of an older technology. For example, a school might substitute the use of a book, with a tablet device and never fully exploit the power of the device to transform learning, teaching and assessment practices. The Digital Strategy states that the presence of digital technologies does not, of itself, facilitate digital learning and that teachers and school leaders are seeking support on how best to use digital technologies with their learners. Digital learning, in line with wider educational system reforms, seeks to support teachers to move away from using digital technologies to support teacher-centred learning strategies to more constructivist approaches. The DL Planning Guidelines provide schools with a process for reviewing their existing DL practices, so they can enhance learning over time.

^{6.} Digital Learning in Schools, http://oecdobserver.org/news/fullstory.php/aid/4655/Digital_learning_in_schools. html

^{7.} MIT Office of Digital Learning, https://odl.mit.edu/value-digital-learning

^{8.} SAMR Model, http://hippasus.com/rrpweblog/archives/2015/10/SAMR_ABriefIntro.pdf

Examples of DL practices might include:

- Engagement with the learner's prior understanding;
- Active involvement of the learner in the learning process;
- Opportunities for the learner to make decisions that affect the subsequent course of a learning activity;
- A high level of interaction and exchange of ideas between learners.⁹
- The use of ePortfolios to support collaborative learning, assessment and reflection.

In this way, digital learning promotes the active use of digital technologies by teachers and learners in schools. The statements of practice contained in the DL Framework capture a range of DL practices to help schools reflect on their own practices and to plan for the embedding of digital technologies in teaching and learning as well as in leadership and management practices.

Digital Learning Framework

The DL Framework should be viewed as an enabler of self-reflection and improvement, and not as an exhaustive checklist. It should be used selectively, and it is not necessary that all aspects of the DL Framework should be included in any one self-reflective or evaluative activity.

Embedding digital technologies in learning, teaching and assessment practices cuts across subjects, school departments and programmes and planning needs to be cognisant of the needs, abilities and confidence levels of all teachers in a school. Therefore, it is important to consider the views of teachers during the planning stage so that the school's DL Plan captures the views of the entire school community.

All too often digital learning planning can overly focus on questions around what technology we should buy or use with our learners (the What), **b**efore considering how these tools might be used in a learning setting (the How). However, all digital learning planning should start by asking why are we using digital technology (the Why) and how will it allow us to design learning experiences that support learners to attain the desired learning outcomes. By focusing on the Why question initially, it allows schools to consider how best to design learning experiences that will meet the needs of their learners and what role, if any, digital technologies might play in these experiences.

Digital Strategy for Schools 2015-2020, https://www.education.ie/en/Publications/Policy-Reports/Digital-Strategy-for-Schools-2015-2020.pdf

Having answered this question they can then move on to the *What* and the *How* questions.

The DL Framework is a flexible tool that can be used in a range of ways by a school or teachers within a school. The DL Framework is designed to:

- Help to promote readiness for new curricula, better teaching and learning and student engagement and the use of student-centred pedagogies.
- Be used as a planning tool by individual teachers, or groups of teachers, to plan, and reflect on, their daily teaching and learning practices, at all levels and across all areas of the curriculum.
- Help schools to develop a clear rationale for the embedding of digital technologies in teaching and learning and to inform infrastructure planning.
- Help schools and individual teachers to identify, and plan to address, their Continuing Professional Development (CPD) needs in this area and in so doing help the Department and the support services to better respond to these needs.
- The following list, while not exhaustive, gives some indication of the ways in which the DL Framework could be used.

Whole School Level

- The school might decide to focus on the overall use of digital technologies, to establish how they are currently being used and to identify areas for improvement.
- The school might initially review the entire DL Framework, and subsequently identify a number of standards to focus on.
- The school might decide to use DL Framework to complement the SSE process. Schools may focus on a curricula area or an aspect of teaching and learning that they wish to investigate and the DL Framework will assist in reviewing the use of digital technologies in this area.

Subject area/Subject Department (Post Primary)

- The Subject Department team might review their current DL practices using the DL Framework.
- Elements of the Framework might be used, along with relevant

^{10.} These exemplars of practice can be found on the PDST Technology in Education website to showcase the effective and highly effective use of digital technologies in a range of school settings.

- exemplars of practice¹⁰ to facilitate reflection.
- Having reviewed their practice, the subject department would then develop a plan to enhance their DL practices.

Class Level (Primary)

- At primary level, teachers in a particular class might review how they and their learners use digital technologies.
- Elements of the DL Framework might be used, along with relevant exemplars of practice, to facilitate reflection.
- Teachers might focus on their use of digital technologies in a curricular area with a view to improving their DL practices.

Programme Level

- A school might use the Framework to review a programme (e.g.
 Transition Year, JCSP and LCVP) within the school to establish how they currently embed digital technologies within the programme.
- Having reviewed their practices, teachers would then identify areas where they would enhance their DL practices.

Cross-curricular Level

- A school might focus on the role of digital technologies within cross-curricular areas (e.g. literacy, numeracy, SESE, Art, STEM, wellbeing, inclusion).
- The school may have chosen numeracy as its SSE focus and may now choose to focus on how digital technologies can help support the school's overall numeracy aims and objectives.
- Teachers might review their DL practices across two or more subject areas using the Framework.

Teacher Professional Learning

- Individual teachers or groups of teachers could use the Framework to reflect on their own practice. They could share this practice with their peers or through communities of practice to learn more.
- The Framework provides a set of statements of practice that allow teachers to reflect on their own professional practice.
- Teachers could then create an individual or group professional learning plan to enhance their DL practices.

Schools can therefore use the Digital Learning Framework in a range of ways, all of which are focused on reviewing existing DL practices with a view to enhancing future practices.

The Digital Learning Planning Cycle

These guidelines are designed to provide schools with a process and a set of key questions to consider when identifying which domain(s) and standard(s) within the DL Framework on which they will focus in creating their DL Plan. In engaging with this cycle, a school will be able to review their DL practices and create a DL Plan that outlines their current use of digital technologies and how they plan to improve their practices into the future. Each school is expected to create a DL Plan as outlined in the Digital Strategy.



Figure 2: The Digital Learning Planning Cycle

The DL Planning Cycle consists of six steps. The six steps are identical to the process used by schools when engaging with SSE. The six steps provide a process for schools and individual teachers to engage in when reviewing and formulating a plan to enhance their DL practices. It should be noted that the six-step process should be situated within an agreed vision for digital learning within a school. It is important that a school spends time in considering what their vision for digital learning might be, before embarking on the six-step process.

We will provide a high-level overview of the six-steps in this section before going into more detail on each step subsequently. The first three steps are the investigation phase while steps 4 to 6 focus on the creation, implementation and evaluation of the DL Plan. This should be seen as an iterative process that can help schools or individual teachers to enhance their DL practices.

Step 1: Identify focus

The school¹¹ should firstly familiarise itself with the DL Framework. Having reviewed the domains and standards, the school should identify the standard(s) on which it wishes to focus. It is not recommended that a school will focus on all 32 standards, but instead identify a sub-set that is relevant to the school.

Step 2: Gather Evidence

Having identified their digital learning focus, the school carefully considers the standards and statements of practice from their chosen area and commences the gathering of evidence which demonstrates the level the school is currently operating at. While the DL Framework has articulated what "effective" or "highly effective" practice might look like for each standard, the school may decide they are not yet operating at either of these levels. This judgement should be informed by the evidence gathered. Evidence can be both quantitative and qualitative, gathered from a range of sources that includes teachers, students, parents, management, classrooms and other relevant sources.

Step 3: Analyse and Make Judgements

Having gathered data from a range of sources, the school analyses the information and benchmarks it against the statements of practice being evaluated. Having collected all the necessary evidence, the school then draws conclusions and makes judgements in relation to how existing practices compare with the statements of effective and highly effective practice in the DL Framework. Schools should use these statements as a benchmark to judge their own performance and to determine their strengths and there are aspects of their work that need to be improved or developed.

Step 4: Write and Share Digital Learning Plan

Having analysed the data and made a series of judgements in relation to their digital learning practices, the school creates their DL Plan. The plan should provide the basis for discussion and reflection amongst teachers, management and others in relation to the role of digital technologies in the chosen focus area.

^{11.} Though this document refers to schools, this cycle can be engaged in by an individual teacher, a group of teachers.

The Digital Learning Plan consists of two parts:

- Part 1 articulates the vision for the use of digital learning technologies and outlines the current situation with regard to digital learning.
- Part 2 describes how the DL practices will be improved over a specified time-period.

The Digital Learning planning cycle should result in action. In developing their DL Plan, the school must decide on specific, measurable, attainable, realistic and time bound (SMART)¹² targets to bring about improvement.

The DL Plan becomes part of the developmental section of the whole-school plan and it should be made available to all staff and to the entire school community.

Step 5: Put the Digital Learning plan into action

Having created a DL Plan the school should begin implementing the identified actions. All relevant personnel should be aware of the actions that need to take place at individual teacher, class, subject department and whole-school level. These actions should become part of the normal teaching and learning process.

Step 6: Monitor actions and evaluate impact

The actions must be monitored on an ongoing basis to evaluate their impact on learning, teaching and assessment practices.

The school will need to decide:

- How monitoring will be organised and carried out
- Who will be responsible for monitoring¹³
- How progress will be determined and reported
- When and to whom progress will be reported (for example at staff meeting, planning meetings, board meetings)
- If targets and actions are realistic or need to be changed.

The active engagement of school leaders and teachers in the ongoing and systematic monitoring of the DL Plan is essential.

The evidence gathered, as a result of ongoing monitoring, should inform and influence the next phase of the DL Plan, or could lead to the identification of

^{12.} DES SSE guidelines in relation to setting, monitoring and realising SMART targets

^{13.} In a large school, a team might be put in place to monitor the Digital Learning Plan while in a small school an individual teacher might oversee this process.

a new aspect of digital learning that the school focuses upon. Ultimately the goal for the school is to enhance their DL practices in all areas of school life and this should be an ongoing activity.

Getting Started (Whole School Level)

When developing a DL Plan at whole school level there are two preliminary actions required.

- 1. Develop a vision for Digital Learning in your School
- 2. Establish a Digital Learning Team (DL Team)

It should be noted that these two steps do not necessarily need to take place in this order, but what is important is that the entire school has an opportunity to input into the creation of a DL plan and that in large schools, a team is formed to guide the creation of a DL Plan.

Having a committed team and a clear vision will help provide a strong foundation for the creation and implementation of your DL Plan.

Putting a Digital Learning Team in Place

While the creation of a DL Plan should, where possible, involve the entire school community, a school could form a DL Team to lead the process. This team should represent a cross-section of the school community and include teachers who regularly use digital technologies and those who don't. Where possible, the team should consist of a mix of teachers from different class levels in primary schools, and subject areas (such as humanities, sciences and the practical subjects) in the case of post-primary schools. The team should coordinate the process of developing the plan while ensuring that all staff has an opportunity to participate in its creation.

Developing a Vision for Digital Learning

Schools should develop a vision for Digital Learning and it should be informed by The Digital Strategy for Schools¹⁴ and the Digital Learning Framework.

The Department's vision for digital learning is to:

 Realise the potential of digital technologies to enhance learning, teaching and assessment so that Ireland's young people become engaged thinkers, active learners, knowledge constructors and global citizens to participate fully in society and the economy.

Digital Strategy for Schools, https://www.education.ie/en/Publications/Policy-Reports/Digital-Strategy-for-Schools-2015-2020.pdf

This vision is further developed in the DL Framework where the statements of practice capture the form the vision could take and how it could be enacted in schools.

The Digital Strategy states that schools should:

• Take a lead role in planning how they will effectively embed digital technologies in learning, teaching and assessment practices. This means involving the entire school community in developing a DL Plan that considers the professional learning needs of teachers, and the views and insight of students and parents/guardians.

In developing the vision, the following possibilities for learners, teachers and the school should be considered.

How might learners use digital technologies to:

- Open-up new forms of learning and collaboration to support different ways of learning.
- Experience joy, satisfaction, passion and success in their education and lifelong learning.
- Actively engage in learning both in and out of school.
- Accept ownership of their learning involving the ability to become a self-directed learner, a decision maker, and a manager of priorities in and out of school.
- Achieve personal learning goals and succeed in various learning activities.

How might teachers use digital technologies to:

- Take a more facilitative role, providing learner-centred guidance and feedback, and engaging more frequently in exploratory and team-building activities with learners.
- Support an enquiry process and enable learners to work on solving complex real-world problems by engaging in collaborative projectbased learning activities that go beyond the classroom.
- Support learners to create and innovate so that they are engaged in managing their own learning goals and activities.
- Accept ownership of their own professional learning and, where appropriate, develop and participate in learning communities that make extensive use of technology.

How might the school use digital technologies to:

- Develop policies and practices for the safe and ethical use of digital technologies by all members of the school community.
- Strengthen their existing relationships with the wider community, both local and global, and connect more with parents/guardians and students in their homes using digital technologies.
- Support inclusion and the individual learning needs of all students.
- Support the existing vision for learning, teaching and assessment practices within the school.

The vision, once developed, should be shared with the entire school community (including student and parent representative bodies) and time should be given to consider it and to modify it further, if required. The vision should complement the school's vision for learning, teaching and assessment in a modern 21st century society.

OUTCOME

- The school has finalised a vision for digital learning.
- The school has established a DL Team to facilitate the planning process.

Getting Started (other planning contexts)

The school having agreed its vision and formed a team are ready to engage in the DL planning process. The Six Step Process underpins the DL planning process, as it would any planning context within the school. As noted previously, though this document refers to the school throughout, the DL planning process can be used in a range of school contexts such as:

Subject Department

 The Mathematics Department decides to review how they use digital technologies to support student learning and they apply the six steps to guide their review.

Class Level

• A group of 5th Class teachers decide to focus on how they currently use digital technologies with their learners and they use the six steps to guide their review.

Individual Teacher

- A teacher decides to review her/his practices using digital technology with learners. They use the DL Framework and the six steps to guide their review.
- A school decides to focus on problem-solving as part of their teaching and learning focus within their SSE activities. In tandem with their review of problem-solving they also review how they currently use digital technologies to develop learner problemsolving skills. The review is guided by the Six-Step Process.

Therefore, the Six-Step Process is a generic set of steps that can be used to guide any review of practice within the school. The process guides a review of digital learning practices, identifies areas where practice can be enhanced and ultimately improves learner outcomes.

OUTCOME

- The school has finalised a vision for digital learning.
- The school is facilitating individual teachers or groups of teachers to review their digital learning practice using the DL Framework and the Six-Step Process to develop and implement a DL Plan for improvement.

Step 1: Identify Focus

In engaging with the DL Framework, schools should identify their target area(s) of need. While schools have different contexts, and they might be at different stages of development in terms of their use of digital technologies, each school should begin by asking "how well are we doing?". Ultimately the use of digital technologies within a school should enhance learner outcomes, learning experiences and teachers' practice. Thus, the school should identify the focus of their review of DL practices within the school.

The DL Framework outlines:

- 32 quality standards across two key dimensions of school life: Teaching and Learning and Leadership and Management.
- Statements of practice for each of the 32 quality standards describing effective and highly effective DL practices.

While we have already stated that the main purpose of the Guidelines is to develop a Digital Learning Plan, it is worth noting that the DL Framework can be used in many ways by schools to identify their focus.

EXAMPLE

A school has been using digital technologies for many years and their learners have significant access to a range of digital tools and activities. The school, having read the DL Framework, decide that their focus will be on their learners' experiences of using digital technologies and how engaged, or otherwise, they are in such learning activities.

Thus, the focus is on learner engagement when using digital technologies. The school then identifies the standard (s) that pertain to learner engagement and they identify the statements of practice they will review.

STANDARDS	STATEMENTS OF EFFECTIVE PRACTICE	STATEMENTS OF HIGHLY EFFECTIVE PRACTICE
Pupils enjoy their learning, are motivated to learn and expect to achieve as learners	Pupils use appropriate digital technologies to foster active engagement in attaining appropriate learning outcomes.	Pupils use appropriate digital technologies to foster their active, creative and critical engagement in attaining challenging learning outcomes.
	Pupils use digital technologies to collect evidence and record progress.	Pupils use digital technologies to collect evidence, record progress, evaluate and reflect, and to create new solutions and/or products.

The DL Team facilitates the discussions around the identification of the school's focus and all staff are consulted in advance of reaching a final decision. In this way the Focus is signed off on by all staff.

In addition to identifying the relevant standards from the Teaching and Learning Dimension the school also identifies relevant statements of practice in the Leading Learning and Teaching Dimension. Here the school selects statements of practice that focus on the management of the school's human, physical and financial resources to create and maintain a learning organisation. They select this standard as it relates closely to the use of appropriate digital technologies in Domain 1 above.

Manage the The principal and other leaders in the school The principal and other leaders in the school school's human, ensure that processes are in place for the strategically review, plan and oversee the physical and procurement, maintenance, interoperability procurement, maintenance, interoperability financial and security of the digital infrastructure for and security of the digital infrastructure for resources so as to effective learning, teaching and assessment. effective learning, teaching and assessment. create and The board of management ensures the The board of management ensures the maintain a provision and maintenance of digital teaching provision and maintenance of digital teaching learning aids and equipment to a good standard. aids and equipment to a very high standard. organisation

In this way the school selects statements of practice from both dimensions of the DL Framework that relate to their focus, that of learner engagement. Schools should identify the relevant practice statements for their focus from both dimensions of the DL Framework.

At the end of Step 1, the school has identified the focus for their DL Plan and it has been discussed and approved by the school staff and board of management.

OUTCOME FROM THIS STEP

• The school has identified and agreed upon the focus of their DL Plan.

Step 2: Gather Evidence

Having identified a focus, the next step is to gather evidence in relation to the standard or area that has been selected and review existing school practices against the relevant effective and highly effective statements of practice.

It is important to gather evidence from a range of sources including teachers, learners and parents, while ensuring that the evidence gathered is manageable, useful and focused.¹⁵ Gathering too much information without a focus can be counterproductive.

Important sources of information for digital learning might include:

- Learning, teaching and assessment practices in classrooms and other learning settings in the school
- The principal, deputy principal and teachers
- Students and parents
- Students' work
- School planning and policy documents.

Schools should consider using a range of methods to gather information or evidence such as:

- Reflection on learning, teaching and assessment practices
- Discussion with teachers on their use/lack of use of digital technologies
- Eliciting the views of teachers, parents and students
- Team teaching or professional collaborative review.

^{15.} In gathering data ensure that privacy and ethical issues are adhered to as part of normal school data protection procedures.

Useful tools to support the gathering of information might include:

- Questionnaires
- Online surveys
- Focus groups
- Checklist and reflection sheets
- Reflection/review/observation schedules for teaching and learning.

Suggested Approach

The DL Team having consulted the DL Framework and identified the relevant statements of practice they wish to review, should then consider what forms of evidence they could gather in relation to each relevant statement of practice.

EXAMPLE

Having identified the relevant statements of practice that relate to learner engagement the school considers what evidence they can collect and how they can do this is an ethical way that adheres to their data protection guidelines.



The school reviews the statements of practice in relation to effective and highly effective practice. The school considers:

- Do learners use digital technologies to foster active engagement? [Effective]
 - If so, how do they do this?
 - Why and how do teachers promote the use of digital technologies to support active engagement in attaining appropriate learning outcomes?
 - What technologies do learners use when actively engaged?
- Do learners use to digital technologies to collect evidence and record progress? [Effective]
 - If so, how do they do this?
 - What is the purpose of collecting this evidence and recording progress?
 - What technologies do they use for this purpose?
- Do learners use digital technologies to foster their active, creative and critical engagement in attaining learner outcomes? [Highly Effective]
 - What level of challenge is typically associated with these learning outcomes?
 - How do they use digital technologies to foster the various forms of engagement?
 - What digital technologies do learners typically use when engaged in such learning activities?
- Do learners use digital technologies to create new solutions and/or products? [Highly Effective]
 - If so, what kinds of new solutions and/or products do they create?
 - What is the rationale for creating such solutions and/or products?
 - If so, do they use digital technologies for any of the following activities:
 - To collect evidence, record progress, evaluate and reflect?

If so, why and how do they use digital technologies to support these activities? The school could gather evidence from teachers, pupils/students and parents on each of these statements and this data can then help the school decide what level of practice they are operating at.

In addition to gathering evidence in relation to any additional standards within the *Teaching and Learning Dimension*, and in keeping with the previous example, the school also decides to gather evidence from related statements of practice within the *Leadership and Management Dimension*.

EXAMPLE

The school also reviews relevant statements of practice from the Leadership and Management Dimension, specifically the school's human, physical and financial resources to create and maintain a learning organisation.

The school reviews the effective and highly effective statements that pertain to this standard. They want to review their current practices in relation to the procurement, maintenance, interoperability and security of the digital technologies learners have access to in school.

Manage the school's human, physical and financial resources so as to create and maintain a learning organisation The principal and other leaders in the school ensure that processes are in place for the procurement, maintenance, interoperability and security of the digital infrastructure for effective learning, teaching and assessment.

The board of management ensures the provision and maintenance of digital teaching aids and equipment to a good standard.

Physical learning spaces have been designed or adapted to harness and optimise the use of a range of digital technologies for learning.

The principal and other leaders in the school strategically review, plan and oversee the procurement, maintenance, interoperability and security of the digital infrastructure for effective learning, teaching and assessment.

The board of management ensures the provision and maintenance of digital teaching aids and equipment to a very high standard.

Physical learning spaces have been designed or adapted and furnished to harness and optimise the use of digital technologies, to provide access to a wide range of relevant digital tools, content and services in learning settings that can be flexibly configured.

In reviewing their current practices, the school considers the following questions:

- Are processes in place for the procurement, maintenance, interoperability and security of the digital infrastructure for effective learning, teaching and assessment?
 - On what basis are decisions made about which digital technologies are purchased and why?
 - Who decides what digital technologies are purchased by the school and why?
 - Does the school have a maintenance contract for its digital infrastructure?
 - Does the school have procedures in place to ensure learner data is stored securely?
- Are these processes recorded and are all staff familiar with them?
- Is the digital infrastructure in the school maintained to a good standard?
 - Is it reliable and appropriate for the needs of learners and teachers?
 - What processes are in place and do they need to be updated? [Effective Practice]

- Does the school take an evidence-based approach to buying digital technologies?
 - Are such decisions informed primarily by learning needs (e.g. buying robotic equipment for Junior Infants to support literacy and numeracy development)?
 - Does the school take into account how the digital technologies plan to be used before making a collective purchasing decision (e.g. technologies that support active, critical and creative engagement among learners)?
 - Does the school consult with other schools, relevant research and knowledgeable others prior to embarking on buying the equipment?
 - Are all digital technologies procurement decisions signed-off on by relevant staff, the principal and the board of management?
- Are these procedures recorded and are all staff members aware of them?
- Is there a process in place for staff to make a learning case for the procurement of digital technologies within the school? [Highly effective]

OUTCOME FROM THIS STEP

- The school has gathered evidence from a range of sources in relation to a number of relevant digital learning standards
- The school has attempted to identify trends in relation to school DL practices.

Step 3: Analyse and Make Judgements

Having gathered a range of evidence in relation to a number of standards, the school then analyses this data and makes judgements in terms of their existing practices. In so doing the school should determine, affirm and celebrate the strengths they identify in the aspects of practice being evaluated while acknowledging the areas that should be prioritised for improvement.

The school should compare their current DL practices with the relevant statements of effective and highly effective practice. The school may find that its practice corresponds in many areas to the statements of effective practice, and that some areas of its work are highly effective. It may identify areas that require development and improvement to bring them to the level of effective practice. The statements will also assist a school to develop areas of practice from 'effective' to 'highly effective', where relevant.

EXAMPLE

A school having reviewed and analysed the evidence gathered on their current practices in using digital technologies to promote learner engagement might make the following judgements:

DOMAIN 1: LEARNER OUTCOMES

STANDARDS	STATEMENTS OF EFFECTIVE PRACTICE	STATEMENTS OF HIGHLY EFFECTIVE PRACTICE
Pupils enjoy their learning, are motivated to learn and expect to achieve as learners	Pupils use appropriate digital technologies to foster active engagement in attaining appropriate learning outcomes.	Pupils use appropriate digital technologies to foster their active, creative and critical engagement in attaining challenging learning outcomes.
	Pupils use digital technologies to collect evidence and record progress.	Pupils use digital technologies to collect evidence, record progress, evaluate and reflect, and to create new solutions and/or products.

- Learners are predominantly using digital technologies in passive ways, such as accessing digital content via a screen. There was limited evidence of learners using digital technologies to support their active, creative and critical engagement in attaining challenging learning outcomes.
- Some learners collect evidence and record progress, but this practice
 is dependent on the teacher and there is evidence of learners using
 different platforms to record such evidence. There appears to be no
 one platform or approach in place for the capturing and storing of such
 evidence.
- The school makes a judgement that their current practices are not at the Effective Level.

On further analysis, the school decides they:

- Need to place greater emphasis on putting digital technologies into the hands of their learners, as current evidence suggests learners have limited access.
- Need to design more engaging learning activities that will enable learners
 to use the digital technologies to foster their active, creative and critical
 engagement in attaining challenging learning outcomes. In this way
 learners will use the tools to solve challenging problems.
- Need to identify one platform for the collection of learning evidence so that all learners will be supported to evaluate and reflect on the information gathered, with a view to create new solutions and/or products. Currently, much of the information that is collected is rarely reviewed or interrogated.

The school also considers if the digital technologies are appropriate to supporting such forms of engagement and they consider if there are more appropriate digital technologies available to support such learning? The Digital Learning Team reviews the good practice videos and investigates what other schools are doing in this area.

Furthermore, the school analyses and makes judgements on the information gathered in relation to the Leadership and Management Dimension.

EXAMPLE

The school reviews the evidence it gathered in relation to the management of the school's human, physical and financial resources so as to create and maintain a learning organisation.

Manage the school's human, physical and learning organisation

The principal and other leaders in the school ensure that processes are in place for the financial resources so as procurement, maintenance, interoperability to create and maintain a and security of the digital infrastructure for effective learning, teaching and assessment.

> The board of management ensures the provision and maintenance of digital teaching aids and equipment to a good standard.

The principal and other leaders in the school strategically review, plan and oversee the procurement, maintenance, interoperability and security of the digital infrastructure for effective learning, teaching and assessment.

The board of management ensures the provision and maintenance of digital teaching aids and equipment to a very high standard.

The evidence indicates that:

- Currently the school does not have a robust procurement process in place and that to date the principal or a member of staff procure digital infrastructure.
- There is currently a range of computer/tablet devices makes and models in the school, and there are interoperability issues between these devices
- There is a lack of digital technologies to support their active, creative and critical engagement in attaining challenging learning outcomes.
- The school decides to review and update their procedures and platforms for gathering and evaluating learner data.
- The digital infrastructure in the school is not always reliable and there are ongoing issues with Wifi and certain devices.
- There is a shortage of digital teaching aids for a range of subject areas in the school.
- The school makes a judgement that they are not operation at the Effective Level.

On further analysis the school decides that:

- They need to develop a process whereby all procurement decisions are based on staff making a learning case for the digital technologies identified. This should be informed by the DL Framework.
- The school explores the possibility of entering into a maintenance contract so that all devices are equipped with the most up-to-date operating system and application software.
- The school decides to review their WIFI infrastructure in certain parts of the school, where there have been issues in the past, with a view to upgrading their infrastructure.

The analysis and judgements made by the school should involve discussion with all staff members and relevant stakeholders, they should focus on enhancing DL practices across the school in the future.

OUTCOME FROM THIS STEP

- The school has engaged in a process of reflection on the evidence collected and made judgements on their current DL practices.
- The school has identified actions they will take to enhance their DL practices.

Step 4: Write and Share the Digital Learning Plan

Digital Learning Plan

The school needs to capture its activities in one document, the Digital Learning Plan (DL Plan). The DL Plan is a single document and outlines how DL practices will be enhanced over a fixed time-period. A suggested structure for your DL Plan is as follows:

Part 1: Where are we in terms of digital learning?

The first part of the DL Plan should contain the following elements:

- A vision statement for the use of digital technologies in the school
- A brief account of the use of digital technologies in the school to date
- The Focus of the DL Plan and how this was decided upon
- The digital learning statements of practice selected for review (identified from the DL Framework)
- The findings (from steps 1-3) and how they were arrived at
 - A summary of strengths (affirm and celebrate)
 - A summary of areas requiring improvement.

Part 2: How can we improve digital learning?

The second part of the DL Plan outlines the targets and actions the school will undertake to enhance digital learning within the school. It will contain the following elements.

- Targets for improvement
 - Actions required to achieve targets (Step 4)
- Who will undertake the actions outlined? (Step 5)
- Who will monitor and review implementation and progress of the DL Plan?
- How will parents and relevant stakeholders be involved?
- A timeframe for the achievement of the targets.

Setting Specific Targets

The school needs to set specific targets for enhancing DL practices over a specific time-period. These should be written as SMART targets to bring about improvement. This is an important step in determining the actions that need to be taken.

EXAMPLE

The school develops a set of specific targets when using digital technologies to promote learner engagement, so that the *pupils/students will use appropriate digital technologies to foster active engagement in attaining appropriate learning outcomes (Effective Practice) and that pupils use digital technologies to collect evidence and record progress (Effective Practice).*

DOMAIN 1: LEARNER OUTCOMES			
STANDARDS	STATEMENTS OF EFFECTIVE PRACTICE	STATEMENTS OF HIGHLY EFFECTIVE PRACTICE	
Pupils enjoy their learning, are motivated to learn and expect to achieve as learners	Pupils use appropriate digital technologies to foster active engagement in attaining appropriate learning outcomes. Pupils use digital technologies to collect evidence and record progress.	Pupils use appropriate digital technologies to foster their active, creative and critical engagement in attaining challenging learning outcomes. Pupils use digital technologies to collect evidence, record progress, evaluate and reflect, and to create new solutions and/or products.	

Their targets are as follows:

- Learners will have access to appropriate digital technologies that foster active engagement.
- Teachers will design at least one learning activity per week where learners will use digital technologies to solve a challenging problem.
- All pupils/students will use digital technologies to record a learning activity at least once a week.
- All teachers will provide formative feedback on this learning activity to learners using digital technologies or an online environment
- All learners will reflect and evaluate the feedback received with their parents/guardians and their teacher.

EXAMPLE

The school develops a set of specific targets, in relation to the management of the school's human, physical and financial resources so as to create and maintain a learning organisation so that:

- the principal and other leaders in the school ensure that processes are in place for the procurement, maintenance, interoperability and security of the digital infrastructure for effective learning, teaching and assessment (Effective Practice)
- and the board of management ensures the provision and maintenance of digital teaching aids and equipment to a good standard.

Manage the school's human, physical and create and maintain a learning organisation

The principal and other leaders in the school ensure that processes are in place for the procurement, maintenance, interoperability and security of the digital infrastructure for resources so as to effective learning, teaching and assessment.

> The board of management ensures the provision and maintenance of digital teaching provision and maintenance of digital teaching aids and equipment to a good standard.

The principal and other leaders in the school strategically review, plan and oversee the procurement, maintenance, interoperability and security of the digital infrastructure for effective learning, teaching and assessment.

The board of management ensures the aids and equipment to a very high standard.

Their targets are as follows:

- The school, with assistance from the DL Team, will develop a process whereby all procurement decisions are underpinned by a learning case that is put forward by staff during Year 1.
- The school will pilot this process initially in Year 1 by identifying 'appropriate technologies' to support active learner engagement. This activity will be led by the DL Team.
- The DL Team will gather evidence, through a set of case-studies, on how teachers are using these technologies to foster active engagement.
- These case-studies, teacher stories, will be shared with all staff, at staff/team meetings throughout the year. The principal will ensure that time is put aside at staff meetings to share these practices and for staff to engage in critical discussion.
- The school will monitor and document the technical issues/challenges the appropriate digital technologies present for staff and learners during Year 1. The DL Team will lead this review.
- The school will explore how best to support these digital technologies, so that they are in good working order for staff and learners during Year 1. The DL Team will identify a range of possible technical support approaches, before recommending their preferred approach to the staff and school management.

Achieving your targets

The DL Plan should develop SMART targets to enable the school to develop its DL practices. To help achieve your targets you should:

- Identify the focus area(s) selected and provide a rationale for its selection.
- List the DL statements of practice that are being prioritised from both dimensions: Teaching and Learning and Leadership and Management.
- List the target(s) to be achieved in relation to the selected statements of practice for both effective or highly effective practice.
- For each target, list the specific tasks required to achieve it.
- For each task, specify:
 - a realistic timeframe within which the task will be achieved;
 - who will be responsible for carrying out the task;
 - what resources are required (i.e. personnel, equipment, services etc.) to complete the task;
 - what outcome is expected once the task is complete.

Resources

In considering how to achieve your targets you will need to consider what resources you have and what additional ones may need to be procured to achieve it. The resources should include a mix of human, digital and other resources, so consider what is required to achieve the target.

These might include:

- Additional digital technologies to support learning, teaching and assessment practices
- Identifying professional learning opportunities for staff. This might include face-to-face or online courses, teachers sharing practice with colleagues, attending conferences or workshops relevant to the target area.
- Support from external personnel and organisations to assist the school to embed digital technologies within the workings of the school.

Whole School Consultation

Once the DL Plan has been completed and discussed by all staff it should then be signed off by the principal and the Chairperson of the Board of Management as school policy. The plan should be reviewed regularly to monitor its implementation progress.

OUTCOME FROM THIS STEP

- The school has developed a DL Plan.
- A summary of the DL Plan has been shared with the school community.
- A process has been developed to monitor the implementation of the plan and all are aware of who is responsible for the targets and their associated tasks.
- The DL Plan has a clear timeline and it will be reviewed regularly.

Step 5: Putting the Plan into Action

This is the key step in the process. It is only when the school begins to implement the actions they articulated in the DL Plan, that digital learning practices in the school improve. All relevant school personnel should share ownership of the actions to be implemented at individual teacher, class, or whole-school level. These actions should become part of the normal teaching and learning process and, as such, should be capable of being implemented by all teachers.

The entire school community has a role and a responsibility to successfully implement the DL Plan. The Digital Strategy notes that ALL teachers should have the requisite knowledge and skills to integrate digital technologies effectively into their practice. Thus, putting the plan into action is key to ensuring that all teachers are confident in embedding digital learning into their practice. Creating and implementing a successful DL Plan requires a whole school approach, where all staff play their part.

The purpose of monitoring the DL Plan is to maintain control of the plan, to keep it on track and to ensure its successful completion by helping to identify problems early on, so that solutions may be found.

EXAMPLE

The school implements a set of actions so that digital technologies can promote learner engagement.

DOMAIN 1: LEARNER OUTCOMES			
STANDARDS	STATEMENTS OF EFFECTIVE PRACTICE	STATEMENTS OF HIGHLY EFFECTIVE PRACTICE	
Pupils enjoy their learning, are motivated to learn and expect to achieve as learners	Pupils use appropriate digital technologies to foster active engagement in attaining appropriate learning outcomes.	Pupils use appropriate digital technologies to foster their active, creative and critical engagement in attaining challenging learning outcomes.	
	Pupils use digital technologies to collect evidence and record progress.	Pupils use digital technologies to collect evidence, record progress, evaluate and reflect, and to create new solutions and/or products.	

The school ensures that:

- Learners have access to appropriate digital technologies to foster active engagement in at least one learning activity per week.
 - A range of digital technologies will be made available on a rota basis to all classes. Class teachers will be able to pre-book the digital technologies they require for their learning activity.
- Teachers work collectively to design at least one challenging learning activity per week that requires a meaningful use of digital technology.
 - Time will be provided weekly for teachers, at grade level or subject department level, to plan challenging learning activities.
- Teachers design at least one learning activity per week where learners use digital technologies to solve challenging problems.
 - Teachers, working in teams, will create weekly challenging problems that have an authentic requirement for using digital technology.
- All teachers provide formative feedback on these challenging problems to their learners using digital technologies or an online environment, at least once a week.
 - All teachers will have access to their learners' digital solutions to the weekly challenging problems and they will provide feedback in a digital form to all learners. This feedback can also be shared with parents.
- All learners reflect and evaluate the feedback received with their parents/ guardians and their teacher on a weekly basis.
 - For homework all learners with their parents/guardians will review their digital feedback and, using digital technology, will create a reflective response to the feedback they have received.

EXAMPLE

The school implements a set of actions in relation to the management of the school's human, physical and financial resources so as to create and maintain a learning organisation.

Manage the school's human, physical and financial resources so as to create and maintain a learning organisation The principal and other leaders in the school ensure that processes are in place for the procurement, maintenance, interoperability and security of the digital infrastructure for effective learning, teaching and assessment.

The board of management ensures the provision and maintenance of digital teaching aids and equipment to a good standard.

The principal and other leaders in the school strategically review, plan and oversee the procurement, maintenance, interoperability and security of the digital infrastructure for effective learning, teaching and assessment.

The board of management ensures the provision and maintenance of digital teaching aids and equipment to a very high standard.

The school ensures that:

- The school, with assistance from the DL Team, develop a process whereby all procurement decisions are underpinned by a learning case, that is put forward by staff during Year 1.
 - The process will start by identifying the kinds of challenging learning activities that teachers are designing and by reviewing if current digital technologies are appropriate. This is the starting point for the creation of the process.
- The school pilots this process initially in Year 1 by identifying appropriate technologies to support active learner engagement. This activity was led by the DL Team.
 - The DL team and a group of teachers reflect on the kinds of challenging learning activities they are using with their learners. Together they explore if the technologies are appropriate and identify, where appropriate, additional technologies that should be procured.
- The DL Team gathers evidence, through a set of case-studies, on how teachers are using these technologies to particular digital technologies.
- The school monitored and documented the technical issues/challenges that the appropriate digital technologies presented for staff and learners during Year 1. The DL Team led this review.
 - In addition, the DL Team creates an online log where staff capture all the technical issues/challenges they have with digital technologies over the course of the school year. The DL Team regularly monitors this log and develops monthly reports to identify the typical issues/challenges that arise and these are shared with all staff.
- The school explored how best to support these digital technologies, so that they were in good working order for staff and learners during Year 1.
- The DL Team identified a range of possible technical support approaches, before recommending their preferred approach to the staff and school management.

- The DL Team, having identify the most common issues/challenges that the school encountered over the year, develop a specification for technical support. This specification is reviewed by staff and a number of options, ranging from running a front-line maintenance course for staff to outsourcing some aspects of technical support are identified. Thus, a range of options are identified and this is influenced by school size, available funds and location.
- The school then tenders for a set of specific services and reviews the responses before appointing a company to provide the service.

School Leadership

Leadership is key to the successful implementation of the DL Plan and this is reflected in the statements of practice within the DL Framework, specifically in *Domain 4, Developing Leadership Capacity* (Leadership and Management).

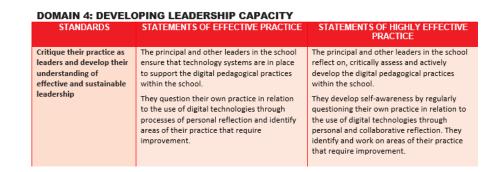


Figure 4: Excerpt from the Digital Learning Framework

The principal and other leaders should:

- Support all staff to embed digital technologies in their teaching practice.
- Support staff development by facilitating sharing of practice amongst teachers and encouraging participation in relevant CPD programmes.
- Ensure all staff have a copy of the DL Plan and are provided with the necessary support, towards implementation.
- Monitor how the plan is progressing and consult regularly with staff members, both formally and informally, in relation to the plan.
- Regularly include Digital Learning on the agenda for staff meetings.
- Facilitate an annual review of the DL Plan.
- Ensure the involvement and support of the Board of Management, and other stakeholders, in implementing the plan.

Teaching Staff

The implementation of the Digital Learning Plan will differ between primary and post-primary schools. At primary level, where teachers teach all subjects, there is an opportunity for each class teacher to embed digital learning within her/his class. At post-primary level, each subject department will play a key role in ensuring the plan is successfully implemented.

Each teacher can contribute to the successful implementation of the DL Plan by:

- Being aware of and by being committed to the DL Plan.
- Sharing good practice with colleagues in relation to digital learning (both formally and informally).
- Using the DL Framework to reflect on their own DL practices (using six step process)
- Reviewing the exemplars of good digital learning practice on the PDST Technology in Education website.
- Identifying and engaging in professional learning activities that support the enhancement of DL practices in schools.

The Digital Learning Team

The DL Team can play a role in ensuring that the plan is owned by teachers, parents and students. Facilitation is essential in ensuring that the plan is successfully implemented. The DL Team can support staff by:

- Discussing the DL Plan regularly at staff meetings and/or subject department meetings at post-primary.
- Holding formal/informal discussions with staff members.
- Facilitating events where teachers share their digital practices, and where more confident teachers work with other teachers on a one-to-one basis and small group basis (mentoring approach).
- Sharing ideas, resources, and/or classroom management approaches that support effective and highly effective DL practices.
- Supporting staff to identify relevant external professional learning opportunities.

Professional Learning

Teachers, along with principals, will be instrumental in ensuring that digital technologies are embedded in learning, teaching and assessment practices in each school. There is a need to ensure that all teachers are equipped with the knowledge, skills and confidence to embed digital technologies into their practice. The DL Framework can support staff to reflect on their current DL practices and to identify areas where they would like to enhance their practice through engaging in professional learning activities.

The school can support staff to:

- Review their current digital practice on their own or with a group of colleagues.
- Identify gaps in their knowledge, skills or confidence in relation to embedding digital technologies into their practice.
- Identify and engage with appropriate professional learning activities, such as sharing practice with peers, participating in communities of practice or enrolling in accredited/unaccredited professional learning programmes.
- Share relevant articles, podcasts or videos on effective and highly effective DL practices with colleagues.

Digital Infrastructure

There is an ever-expanding array of digital technologies that can support learning in schools. Many of these technologies have not been developed for education but with careful consideration and thoughtful planning they can transform learning, teaching and assessment practices. In selecting such technologies, schools must consider what learning practices they wish to promote and select the appropriate technologies for the task. Schools should review how other schools are using various technologies by viewing exemplar case-studies online, by attending conferences or by visiting other schools. The PDST Technology in Education website provides a range of video exemplars to enable schools to review a wide range of digital infrastructure being used to support the DL Framework.

OUTCOME FROM THIS STEP

- The DL Plan is being implemented.
- The DL Plan is being monitored regularly and adjusted accordingly.
- All relevant staff are involved in implementing the DL Plan.
- Staff have an opportunity to share ideas and good practice with each other.

Step 6: Monitor Actions and Evaluate Impact

The DL Plan will have outlined how the plan will be monitored. This will be key to ensuring that the targets are met in accordance with the timeframe outlined in the plan. The actions being implemented in step 5 should be monitored on an ongoing basis to evaluate their impact on learning, teaching and assessment practices. The school needs to determine if they have met their targets and decide what further action is needed to enhance digital learning in the school.

The school should consider the following:

- Have DL practices changed in the target areas?
- What are teachers' experiences of the agreed changes?
- What are learners' experiences of the agreed changes?
- What is the impact on pupil/student learning?
- What aspects of digital learning should they focus on next?

The role of those leading the process, and the role of all teachers in the ongoing and systematic monitoring of the implementation of the plan is important. In this regard, the gathering and use of information at specified intervals to check if the required improvements are being made is necessary.

The school should capture if there are any areas that require further improvement, and these should feed into the next version of the DL Plan.

The creation of a DL Plan should not be viewed as a once off event. The DL Plan needs to be reviewed and updated regularly to reflect where the school is in embedding digital technologies into all aspects of school life. Thus, the review phase of the DL Plan is a key step in identifying the new target areas the school will select for the next iteration of the plan.

OUTCOME FROM THIS STEP

- The DL Plan has been implemented as demonstrated by the evidence gathered from the ongoing monitoring and evaluation process.
- The school has carried out a review of the DL Plan.
- The school has identified the next focus area for their DL Plan informed by the evidence based review.

APPENDIX A

Resources and Supports





Professional Development Service for Teachers

The Professional Development Service for Teachers (PDST), which includes PDST Technology in Education and the Digital Technologies team, is a cross-sectoral support service under the remit of the Teacher Education Section (TES) of the Department of Education and Skills (DES) which offers professional development support to primary and post-primary teachers and school leaders. The work of the PDST contributes to school improvement by providing high quality Continuing Professional Development (CPD) on curricular and educational issues, fostering reflective practice and ongoing development among teachers and school leaders. It is Department policy that digital technologies are embedded in the planning, design and delivery of all teacher education courses and CPD programmes. All future curriculum specification will incorporate clear statements of learning that focus on developing digital learning skills and the use of digital technologies in achieving learning outcomes at all levels of education.

PDST Technology in Education

PDST Technology in Education promotes and supports the embedding of digital technologies in learning, teaching and assessment in primary and post primary schools, through the provision of a repository of open educational resources, good practice videos, online CPD, advice and support relating to digital infrastructure and guidance on responsible and safer use of the internet. These resources and supports can be accessed via the PDST Technology in Education, Scoilnet and Webwise websites.

The PDST **Digital Technology** team promotes and supports the embedding

of digital technologies in learning, teaching and assessment in primary and post primary schools through the provision of a suite of professional learning models which include seminars for school leaders and teachers, twilight workshops in local education centres, customised school-based support arising from schools' identified needs as well as a catalogue of summer courses.

This support enables the authentic embedding of Digital Technologies across all subjects and programmes as well as specific supports for the digital learning planning process.

All primary and post-primary teams in the PDST actively promote the embedding of Digital Technologies in teaching, learning and assessment with regard to their specific subject/programme priority area.

Most of the supports covered in this section can be accessed via the following link:

http://pdsttechnologyineducation.ie

Planning



All digital learning planning resources can be accessed on the PDST Technology in Education website, including:

- The Digital Learning Framework (Primary)
- The Digital Learning Framework (Post Primary)
- Video Exemplars to support the Digital Learning Framework (Primary
- Video Exemplars to support the Digital Learning Framework (Post Primary)
- The Digital Learning Planning Guidelines

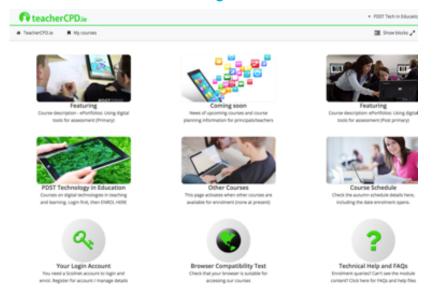
How to access:

Digital Learning Planning material: http://www.pdsttechnologyineducation.ie/en/Planning/

How to use:

- Provide links to these documents to all staff for use to support the digital learning planning process.
- Point staff in the direction of the video exemplars which support the schools' chosen statements of practice.

CPD/Teacher Professional Learning



The PDST, through its Technology in Education and Digital Technology teams provides both face to face and online courses professional development opportunities which promote and support the embedding of digital technologies in learning, teaching and assessment. All courses are available free of charge to teachers.

These include term-time options for primary and post primary teachers, as well as summer courses (approved for EPV days) for primary teachers.

Content covers a broad range of areas, including the use of digital technologies to support literacy, numeracy, special educational needs and

STEM in learning, teaching and assessment. Specific topics within these areas include:

- Online resources and tools
- ePortfolios
- Coding and computational thinking
- Safer Internet use
- Scoilnet and related services
- Digital video
- Audio recording
- Digital images
- Social bookmarking (storing, organising, sharing online resources)
- Creating digital resources
- Digital technology for assessment
- Copyright for digital resources

Face to face CPD can be accessed by teachers via their local education centre and also though customised school support where the PDST Digital Technology team engage with teachers and school leaders in schools and classrooms to enable the effective embedding of digital technologies in teaching, learning and assessment. Digital Technology advisors can also work with school management and/or the digital learning team/committee to develop a Digital Learning Plan and provide associated professional learning according to identified needs.

Online CPD is available, via **TeacherCPD.ie**—the PDST Technology in Education online learning platform. Courses range in duration from 2 to 20 hours and can be completed in the teacher's own time.

How to access:

Face to Face CPD: http://www.pdsttechnologyineducation.ie/en/Training/

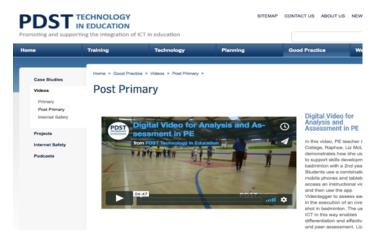
Online CPD: http://TeacherCPD.ie

In-school support: http://pdst.ie/schoolsupport

How to use:

- Provide overview of CPD available at a staff meeting (include other providers as relevant).
- Provide staff with recognition for completion of face to face or online CPD during additional hours, in accordance with relevant circulars (Circular 0042/2016 or subsequent updates).
- Complete an online course as a whole staff and follow up with a teacher planning meeting to support specific school actions based on the course content.
- Organise a whole staff summer or term-time (face to face) course.
- Make teachers aware of PDST in-school support.

Good Practice Videos



PDST Technology in Education has produced in excess of 100 videos showcasing good practice in the embedding of digital technologies in Irish classrooms. Videos are between 3 and 5 minutes in duration and cover a broad range of topics and subject areas from using robotics to teach computational thinking in Junior Infants to using students' own smartphones (BYOD) to support assessment in Senior Cycle Maths.

How to access:

Primary Videos: http://www.pdsttechnologyineducation.ie/en/Good-Practice/Videos/

Post Primary Videos: http://www.pdsttechnologyineducation.ie/en/Good-Practice/Videos/

Scoilnet Services



Scoilnet is the Department of Education and Skills' official portal for Irish education and is managed by the PDST Technology in Education. The aim of the service is to develop digital literacy and confidence in using technology in teaching and learning through the provision of curriculum-tagged open education resources. Registered teachers in Ireland can share classroom resources though Scoilnet.

Currently there are in excess of 19,000+ open education resources and weblinks aligned with the Primary School Curriculum and Post Primary Subject Syllabus which are available free of charge to all schools. The Scoilnet portal was enhanced in 2014 to allow all teachers registered in Ireland to share their own curriculum-tagged resources through the website.

The Scoilnet initiative licenses external digital content for use in schools and through this gives free access to

- World Book Online
- Irish Newspaper Archive (60+ national and local newspapers)
- Irish Times Archive
- Dictionary of Irish Biography
- JSTOR Ireland Collection
- Selected reference books from the Royal Irish Academy.

How to access:

Scoilnet: http://www.scoilnet.ie

A number of independent websites with specific relevance to the Irish curriculum have been developed under the Scoilnet initiative. This has been achieved in collaboration with professional development and curriculum support services, and other organisations and include websites such as:

- **Scoilnet Maps** Interactive mapping tool featuring detailed Ordnance Survey Ireland maps, world maps, GIS data layers. www.maps.scoilnet.ie
- Science Hooks Initiative of National University of Ireland, Galway
 and provides science educators with a collection of videos that
 capture novel and engaging aspects of Chemistry, Physics and
 Biology. http://www.sciencehooks.scoilnet.ie/
- **French.ie** Providing support for the French Junior and Senior Cycle curriculum. www.french.ie
- German.ie Collaborative project to support Junior and Senior Cycle German. www.german.ie
- CensusAtSchool International project promoting statistical literacy, this website facilitates the collecting and disseminating of real data for use by teachers and students in class. www. censusatschool.ie/
- Irish Flag Explores the historical evolution of the Irish tricolour flag and its acceptance as the flag of the Irish state. www.scoilnet.ie/ irishflag/
- **Threads** Provides an online space for schools to upload and share their students' oral history projects. www.scoilnet.ie/threads
- Arts in Education A community of practice within arts and education, and provides a space where both artists and teachers can be supported and inspired. www.artsineducation.ie

Another innovative project run by PDST Technology in Education is FÍS – aimed at primary schools FÍS explores film as a medium of expression in relation to the arts, and introduces children to aspects of the film-making process.

The project has succeeded in helping children to develop essential skills in moving-image literacy, communication and teamwork. In 2016 the FÍS Film Project updated its full suite of teacher resources. A new suite of lesson plans is available as well as a range of short video tutorials on the Fís Film Project website.

The FÍS Film Project continues to be delivered by the FÍS Office at the Institute of Art, Design & Technology and PDST Technology in Education.

How to access:

Fis Film Project: http://www.fisfilmproject.ie/

How to use:

- Encourage the embedding of digital resources into classroom teaching.
- Get teachers to create class 'learning paths' through the tool provided on Scoilnet that enables resources to be pulled into a personal collection that can be shared with students.
- Encourage teachers to share their resources through the Scoilnet portal thereby expanding the open education resource database available to all teachers.
- Encourage teachers to engage with specific digital projects, e.g. Census At School for Maths; Threads for History; Scoilnet Maps for Geography.

Webwise & Internet Safety



Webwise promotes responsible, effective, and safer use of the internet by young people through the development and dissemination of resources that help teachers integrate internet safety into teaching and learning in their schools. Webwise also provides information, advice, and tools to parents to support their engagement in their children's online lives. With the help of the Webwise Youth Advisory Panel Webwise develops youth oriented awareness raising resources and campaigns that address topics such as cyber bullying.

Webwise Resources

A key focus of Webwise awareness actions is to provide relevant support to schools to promote the safer, more effective use of the internet in teaching, learning and assessment. Webwise supports the inclusion of cyber bullying awareness and prevention in the implementation of the Social Personal Health Education (SPHE) curriculum in Primary and Post Primary schools by developing free learning resources that can be used by teachers in classrooms. All resources can be ordered for free on Webwise.ie.

Webwise Parents

Webwise also provide information, advice, and tools to parents to support their engagement in their children's online lives. Advice, information and resources can be accessed on this webpage.

How to access:

Webwise: http://www.webwise.ie

Webwise free teacher resources: https://www.webwise.ie/teachers/

resources/

AUP generator: https://www.webwise.ie/aup-2/ Webwise Parents: https://www.webwise.ie/parents/

How to use

- Encourage teachers to use Webwise resources in the classroom to address internet safety topics.
- Consider including the free Webwise advice guides for parents in student induction packs.
- Encourage teachers to use classrooms videos to engage students on topics such as image-sharing, cyber-bullying and social media.
- Safer Internet Day offers a wonderful opportunity for schools to showcase how they are addressing internet safety. Encourage teachers and students to participate. Information can be found here: saferinterneday,ie
- Encourage students to tackle cyberbullying and other internet safety issues through peer-led activities and campaigns. Watchyourspace.ie offers free information, advice and resources for teens.
- Use the Webwise Acceptable Use Policy Generator tool to customise an Acceptable Use Policy based on your school

Technology / Digital Infrastructure



PDST Technology in Education promotes and supports the integration of a high quality digital infrastructure into teaching and learning for schools. While each school is unique in terms of size, location and their stage of development, there are some universal shifts and trends taking place in how schools are using digital technologies. These include:

- Increased use of cloud based tools and applications by schools
- The importance of fast/reliable broadband to connect with cloud based applications
- Use of mobile computing devices by teachers and students to support active learning contexts

- Importance of suitable wifi networks within schools to support mobile learning contexts
- Changes in how information is presented in the classroom

Each of following areas are dealt with in detail in the Technology section of the PDST Technology in Education website:

Mobile Learning Devices / BYOD

Increasing numbers of schools are now using mobile devices in classrooms in preference to desktop PCs. Also, tablets are being purchased increasingly in preference to laptops as they provide schools with alternative options to support mobile learning. A shift which is gaining momentum is to allow pupils/stundents to bring in their own devices (BYOD) for learning.

Networking / Wifi Networks

To support effective digital learning using mobile devices a 'fit for purpose' wifi network is now critical in schools. Wifi systems connect mobile devices to online resources via the broadband connection and as such mobile learning, school wifi, broadband and use of cloud applications are all interdependent. It is important if schools are purchasing a wireless network that they seek independent advice.

Presenting in the Classroom

Teachers are using a range of interactive approaches for 'presenting' in classrooms. While interactive whiteboards (IWBs) are still fit for purpose when used effectively, new technologies and applications can enable teacher or student screens to be mirrored wirelessly to a large screen. Large Interactive Flat Screens (IFS), though more expensive, can provide an alternative to IWBs and/or a projector for new purchases.

Cloud based tools and applications

Schools are increasingly using a wide range of useful cloud based tools and applications to support learning, teaching and assessment. Many are free and provide a diverse and evolving range of possibilities to enhance learning.

Schools Broadband

Fast, reliable broadband is critical to accessing online resources for learning. All Post-primary schools have high speed broadband. The Schools Broadband Programme provides an integrated set of services to schools which includes broadband connectivity, and hosted services including content filtering, webhosting-blogging and security services including anti-virus control and a centralised firewall.

Technical Support

The purpose of technical support in schools is to provide a fit for purpose service to ensure schools' existing digital technologies, equipment, infrastructure and systems are functional and dependable, so that they can support learning, teaching and assessment, schools administration and planning systems. These digital technologies include computing devices, network including wifi, and other systems such as learning platforms, digital learning tools and applications and software. They also include school administration systems, parent communication systems and a school website.

Further information, including contact details, can be found at: https://jmb.ie/school-procurement

How to access:

Technology advice on all of the areas covered above: http://www.pdsttechnologyineducation.ie/en/Technology/

Schools Broadband Service Desk (single point of contact for schools): Email: broadbandservicedesk@pdst.ie or phone: 1800 33 44 66.

Email contact for specific ICT infrastructure queries: ictadvice@pdst.ie .

Procurement Information/Use of Purchasing Frameworks

The Schools Procurement Unit (SPU) acts as the central coordinating function for procurement for all schools in the primary sector, all voluntary secondary schools, special schools and schools in the Community and Comprehensive (C & C) sector (including special schools and excluding schools under the remit of ETBs). All schools have been issued their "Guidance for Schools on Good Procurement Practices" document, also available on their website, outlining the requirements of procurement, and detailing the process to be followed by schools when procuring goods and services using public monies.

The Schools Procurement Unit also provide a central contact point for advice and guidance to all schools (under its remit) on procurement related issues, including the use of OGP and DES Frameworks. The SPU help schools to improve their procurement policies, practices and processes and communicates with school personnel, towards an improved take-up of centrally negotiated frameworks and competitions for schools.

Further information, including contact details, can be found at: https://jmb.ie/school-procurement

APPENDIX B

[School name]

Our Digital Learning Plan

1. Introduction

This document records the outcomes of our current digital learning plan, including targets and the actions we will implement to meet the targets.

1.1 School Details:	
•	
•	
•	
1.2 School Vision:	
•	
•	
•	
1.3 Brief account of the use of digital technologies in the school to date	:
•	

2. The focus of this Digital Learning Plan

We undertook a digital learning evaluation in our school during the period *(month/year)* to *(month/year)*. We evaluated our progress using the following sources of evidence:

2.1 The dimensions and domains from the Digital Learning Framework being selected

•

2.2 The standards and statements from the Digital Learning Framework being selected

Standard	Statement(s)					

2.3	. These are a summary	v of our	strenaths	with rec	ıards digi	tal learning

•

•

2.5 This is what we are going to focus on to improve our digital learning practice further

•

•

3. Our Digital Learning plan

On the next page we have recorded:

The **targets** for improvement we have set

The **actions** we will implement to achieve these

Who is responsible for implementing, monitoring and reviewing our improvement plan

How we will measure **progress** and check **outcomes** (criteria for success)

As we implement our improvement plan we will record:

The progress made, and adjustments made, and when Achievement of targets (original and modified), and when

Digital Learning Action Plan

DOMAIN: (From Digital Learning Framework)

STANDARD(S): (From Digital Learning Framework)

STATEMENT(S): (From Digital Learning Framework)

Targets: (What do we want to achieve?)

ACTIONS	TIMEFRAME	REMITS	RESOURCES	SUCCESS CRITERIA
(What needs to	(When is it to be	(Who is to do it?)	(What resources	(What are the
be done?)	done by?)		are needed?)	desired outcomes?)
•	•	•	•	•
•	•	•	•	•
•	•	•	•	•

Evaluation Procedures:

APPENDIX C

DIGITAL STRATEGY FOR SCHOOLS, 2015-2020 DEVELOPMENT GROUP - DIGITAL LEARNING PLANNING GUIDELINES

(Replacement of eLearning in your school handbook)

MEMBERSHIP

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