What is digital literacy?

1.1 What is digital literacy?

Digital literacy is the ability to use technology appropriately and contextually. It is considered to be a core aspect of 'deep learning'. It is an essential 21st century learning skill. In fully understanding and harnessing the potential of digital technologies, learning can become more dynamic, interactive and diverse. This, in turn, can support the development of a whole set of broader learning capabilities and skills, such as:

- creativity
- collaboration
- communication
- problem solving and so forth

Such skills are transferable across a range of subject and content areas and are applicable to a whole range of aspects of students' learning lives. Many commentators argue that schools utilise learning and teaching methods no longer suited to the 21st century. However, even where digital technologies are used, these are actually often utilised to enhance more traditional teaching approaches. It is argued that 'banking' or 'transmission models' of education still dominate most classroom practice. Such practices position students as passive recipients of knowledge rather than as active participants in knowledge creation processes.

When thinking about what digital literacy is, it is clear that we also have to consider the broader learning processes underlying 'deep' learning or 21st century skills development, and the pedagogical approaches and practices needed to foster them. Greater emphasis should be placed on practices and approaches whereby students are:

- active;
- exercise greater choice and voice;
- co-construct personalised learning experiences and tasks with teachers;
- create artefacts and new knowledge; and
- work collaboratively with others;

1.2 ICT, IT skills, Digital literacy skills and competencies

When computers first started to gain popularity in education, the focus was very much on teaching students how to use them and the software programs available for them. Most curricula were built around the development of IT skills and knowhow. It was assumed that once students learned how to use the software and hardware, the task was complete.

With the development of the internet and the popularisation of communication technologies, IT became ICT, and a similar approach was taken in helping students learn to use the relevant hardware and software as it evolved.

It is true that the ability to understand how software and hardware work is important. The learning of skills such as how to open a document and how to save and store information are an

important part of enabling digital literacies, but it soon became clear that there is an additional layer of understanding necessary.

Digital literacy skills and competencies are more than the manipulation and control of software and hardware. They represent a deeper level of how our interpersonal and cognitive skills need to evolve to use these technologies in a productive and effective way. In the same way:

- knowing how to pick up a pencil and write letters and words does not mean that you can write a poem or a novel or even a letter;
- knowing how to open a document or create a website or turn on a webcam, doesn't mean that you are able to use these tools to collaborate with others, communicate effectively or create using these tools;

It was a growing understanding of this that lead to research into the digital literacies and competencies that we will learn more about in the following sub headings.

1.3 Connectivism and digital literacy skills

Connectivism is a theory of technology integration that has originated and is unique to the digital world. Connectivism originated as an attempt by Stephen Downes and George Siemens (2009) to understand and define the ways in which learning naturally occurs in the digitally connected and socially networked world.

The theory has huge implications for the development of autonomous learning as well as online learning and digital literacy skills. This theory was used to support the construction and implementation of a generation of MOOCs (Massive Open Online Courses) and MOOC platforms. Connectivist learning is based on the following set of principles:

- Learning and knowledge rest on in diversity of opinions.
- Learning is a process of connecting specialized nodes or information sources (such as websites, blogs and CoPs).
- Learning may reside in non-human appliances (such as computers and mobile devices).
- Capacity to know more is more critical than what is currently known so the skills of being able to search for and find information are more important than the information you know.
- Nurturing and maintaining connections is needed to facilitate continual learning so the ability to build personal leaning networks and participate in communities of practice are both vital.
- Ability to see connections between fields, ideas and concepts is a core skill.
- Currency (accurate, up-to-date knowledge) is the intent of all connectivist learning activities.
- Decision-making is it-self a learning process so we need to help our students to become more autonomous and make their own decisions.
- Choosing what to learn and the meaning of incoming information is seen through the lens of a shifting reality. While there is a right answer now, it may be wrong tomorrow due to alterations in the information climate affecting the decision.

When thinking about our use of technology in education, we can use these principles as a guide to evaluate the effectiveness of our tasks and activities. We can look at the ways we are encouraging and guiding our students in the use of technology to ensure we are helping to reinforce the understanding and practice of these guiding principles.

1.4 How digital literacy can inform pedagogy and practice

TPACK is an attempt to identify the knowledge and understanding that teachers need to possess in order to effectively use technology so that digital literacy development can be driven by informed pedagogy and practice.

The paradigm looks at the individual primary knowledge areas of content, pedagogy and technology, but also helps us to focus on the areas where these skills need to be combined into new levels and fields of understanding. The initial primary knowledge areas are:

- **Content Knowledge**: Teachers' knowledge about the subject matter to be learned or taught.
- **Pedagogical Knowledge**: Teachers' deep knowledge about the processes and practices or methods of teaching and learning.
- **Technology Knowledge:** Knowledge about certain ways of thinking about, and working with technology, tools and resources. Being able to recognize when information technology can assist or impede the achievement of a goal.

But discrete knowledge of these areas individually does not mean we are able to combine them to achieve impactful learning.

TPACK is based on an understanding that we need to have knowledge of combinations of these primary areas and by combining them we create new knowledge areas. These being defined as:

- **Pedagogical Content Knowledge**: "Teacher interprets the subject matter, finds multiple ways to represent it, and adapts and tailors the instructional materials to alternative conceptions and students' prior knowledge. PCK covers the core business of teaching, learning, curriculum, assessment and reporting, such as the conditions that promote learning and the links among curriculum, assessment, and pedagogy" (Koehler & Mishra, 2009).
- **Technological Content Knowledge**: "Teachers need to understand which specific technologies are best suited for addressing subject-matter learning in their domains and how the content dictates or perhaps even changes the technology—or vice versa" (Koehler & Mishra, 2009).
- **Technological Pedagogical Knowledge:** "An understanding of how teaching and learning can change when particular technologies are used in particular ways. This includes knowing the pedagogical affordances and constraints of a range of technological tools as they relate to disciplinarily and developmentally appropriate pedagogical designs and strategies" (Koehler & Mishra, 2009).

Finally, all six of these knowledge areas can be combined to form a seventh and ultimate field of knowledge.

• Technological Pedagogical Content Knowledge (TPACK): Underlying truly meaningful and deeply skilled teaching with technology, TPACK is different from knowledge of all three concepts individually. Instead, TPACK is the basis of effective teaching with technology, requiring an understanding of the representation of concepts using technologies; pedagogical techniques that use technologies in constructive ways to teach content; knowledge of what makes concepts difficult or easy to learn and how technology can help redress some of the problems that students face; knowledge of students' prior knowledge and theories of epistemology; and knowledge of how technologies can be used to build on existing knowledge to develop new epistemologies or strengthen old ones" (Koehler & Mishra, 2009).

We can use this framework to help focus on and assess the knowledge areas that we need to develop as well as using it as a guide to help us understand which fields of knowledge our training is addressing.

1.5 The future of learning

Predicting the future of learning is a very difficult thing to do. In many ways, teaching and learning has changed very little over the last hundred years and many classrooms today look very much like it did over a hundred years ago. The recent pandemic has had a huge impact on the way education is being delivered and many of the technologies that have been available to teachers and learners for more than a decade have finally been accepted as valid means to deliver education.

Whether this trend for technology adoption continues and at what pace remains to be seen. There are some predictions though that we can safely make:

- The opportunities for students and teachers to access resources to support their own learning will continue to grow.
- The nature and format of these resources will continue to diversify as technologies like virtual reality; augmented reality and artificial intelligence become increasingly integrated into learning materials.
- Students will increasingly have access to international support for their education from within their own home through various virtual learning and classroom platforms.
- Teachers will need to commit more time to keeping up with and understanding how new technologies can be applied in the classroom.
- The range of digital skills and literacies as well as the 'soft skills' such as empathy, creativity and emotional intelligence will continue to grow and diversify.

Although schools and classrooms may revert or return to their pre-pandemic format, it's likely that increased access to technology in the hands of students will make the ability to develop autonomously and take control of their own learning, one of the most important skills.

1.6 Digital literacy in practice

One of the keys to putting digital literacy into practice is shifting control and focus of lessons away from the teacher into the students. For many teachers who see their role as the source of knowledge and the head of the class, this can be quite challenging.

There is also a challenge to giving the students hands on access to technology. For most teachers, their first experience of using technology in the classroom is the single computer classroom. In this format, there is usually just one computer in the classroom perhaps with a projector and may be also the internet connection.

In this single computer environment, it is usually the teacher who controls the computer and the students do not touch it. In this environment, it is almost impossible to develop the student's digital literacy skills. The technology must be in the hands of students to do this.

In classrooms where students can access digital devices, whether by bringing their own device (BYOD) or using ones that are provided by the school, the development of digital literacies is possible, but again this can be challenging. For students to be able to develop the range of digital literacies they need, they need to be given meaningful tasks to do that involve both the consumption as well as the production of digital content. It is this practical production of digital content that can be most challenging for teachers. Giving students the opportunity to be creative can be challenging for teachers. Creativity rejects control, is unpredictable and can be very difficult to evaluate and assess. Despite these challenges we must move forward as educators and give our students the freedom to create and explore that they need to develop these vital literacies.

Here are some examples of the kinds of tasks recommended by authors Jones and Hafner in their book 'Understanding Digital Literacies: A Practical Introduction' – Routledge. Activities should encourage students to:

- Search through and evaluate great masses of information.
- Create coherent reading pathways through complex collections of linked texts.
- Make connections between widely disparate ideas and domains of experience.
- Shoot and edit digital photos and video that demonstrate learning outcomes.
- Create multimodal documents that combine words, graphics, video and audio.
- Create and maintain dynamic online profiles and manage large and complex online social networks.
- Explore and navigate online worlds and interact in virtual environments.
- Protect one's personal data from being misused by others.

What's important about all of these activities is the focus on practicality and the hands-on nature of the work that students rather than teachers should do.

Understanding the Essential Elements of Digital Literacy

2.1 Elements of digital literacy 1

As we have already seen, digital literacy is the skills, knowledge and understanding that enable us to engage with technology in a safe, critical and creative way in all areas of our day to day lives. Hague & Payton (2010) divided digital literacy into the following eight components.

- **Functional skill:** This is the most basic but fundamental component. It is the ability to use the computer at a very basic level, e.g. switching it on, opening an app or software package, creating a document.
- **Collaboration:** Digital literacy is also a social activity of working with others to create shared products and understanding. This is something students need to learn to do.
- **Creativity:** Being digitally literate includes more than being able to find and consume knowledge. It is also important that students use technology to create, whether this is creating some for of product or output, thinking creatively and imaginatively, creating and sharing knowledge.
- The ability to find and select information: Searching and finding information is probably one of the most commonly used digital skills around the world. Despite this many people still have problems quickly locating the accurate information that they need. As advertising and misinformation continues to be published online this will remain an important skill.
- **Critical thinking and evaluation**: Beyond finding the information they are looking for, students need to be able to analyse and critically evaluate it and transform the information and data they find into useable knowledge.
- Effective communication: Communication plays a central role in our day-to-day interactions. Most interaction is mediated through some form of digital technology, so students need to be able to use these technologies to build successful communication strategies.
- **Cultural and social understanding:** Students need to be able contextualise the digital experiences and interactions they engage in and see them within the range of cultures they interact with. Cultural and social understanding provides students with a language and context for their digital literacy.
- **E-Safety:** Finally, students need to develop their understanding of digital threats, digital footprint and how to manage and negotiate these in the virtual world.

2.2 Elements of digital literacy 2

The perspective of digital literacy described above is one of many similar and varied descriptions. Another equally valid but not so popular description comes from Doug Belshaw's eight elements of digital literacy. These are described below.

• Culture: This component sees the internet as an independent culture with its own norms

of communication and its own etiquette that users need to learn and follow.

- **Cognitive:** This is similar to the description of functional skills above but it includes the ability to develop transferable skills, for example, understanding the interface of one application will help you to understand the interface of another. This should make learning to use a range of devices and applications easier and more intuitive.
- **Constructive:** This involves the construction of text and other digital assets and understanding how to appropriately use online sources and information whilst still respecting copyright.
- **Communicative:** This element is much the same as in the previous model and includes being familiar with the norms of various communication technologies and genres.
- **Confidence:** Belshaw includes confidence which he describes as a sense of belonging and being part of a community online. He also includes familiarity with the ways the online world differs from the physical one.
- **Creative:** Like the first framework, Belshaw also includes creativity and the ability to produce digital artifacts that add value to for others.
- **Critical:** This element includes the ability evaluate information found online and identify credible sources.
- **Civic:** Interestingly, Belshaw also includes the civic element which he describes as the students' ability to self-organize and to engage in social movements and participate fully in society online.

Although these aren't the only attempts to provide a framework for understanding digital literacy skills, they do represent a good starting point and one that you can develop and build on as you develop your own understanding.

2.3 Identifying and overcoming problems

There are several common problems associated with the development of digital literacies. One of the biggest problems connected with the development of digital literacies is the rapid pace of change. This happens in several areas.

- **Digital hardware**: New devices, upgrades and new models of computer, phone and tablet are coming increasingly quickly, with many of the major manufacturers producing new models as regularly as every 6 months. This is a challenge for teachers and students as teachers need to have some understanding of the devices that their students have access to and how to guide them to best use these.
- **Digital software**: There is a constant flow of new software applications and apps available which are constantly expanding the range of what is possible on our devices. Understanding which of these will add value to our students' lives and be available in the long term is a considerable challenge for teachers.
- **Interface design**: Many of the applications that have become popular over a period of years still have regular redesigns and develop their interfaces. This can make the sourcing and development of reliable training materials difficult and time consuming. Materials

you develop will need to be kept up to date and ones that you find online may well be out of date.

An understanding of the core elements of digital literacy that we have described in this chapter should help to deal with these problems. Although the software and the hardware that students use may change rapidly, the core skills of communication, collaboration, etc. remain the same. Coordinating the work you do with students to these core skills rather than training students to use specific applications, will help you keep your students grounded in what is most important. Although software and interface design changes very regularly, there are still consistencies across various applications. These consistencies make transferring skills from one application to a new one much easier. The constant change between different applications also helps students who have already experience a number of computer applications shifting between different applications with only minimal unease.

2.4 Mapping ICT to literacies

When designing a curriculum for ICT application and the development of digital literacies it can be tempting for teachers to try to map individual applications onto specific elements of digital literacy. Although the rationale for this is clear, it can be unwise as the mapping tends to be very superficial. A typical example would be to map blogging applications onto creativity, because blogs are used to create and post articles. This, however, is quite naive. The reality is that we need to see each application within the overall framework and how it relates to each one of the elements. The blogging application for example involves:

- A number of functional skills associated with digital publishing online;
- Collaboration skills if a group of students are working on the finished article;
- Creativity in the composition of the text and the arrangement of images;
- Researching information for the text;
- Evaluating a number of sources and looking critically at the information they would need to compose the text with a specific context in mind;
- Understanding the culture of the reader it was aimed at;
- Understanding of the communication norms of responding to comments on blog posts;
- Understanding the elements of e-safety and digital footprint associated with online publishing;

So, as you can see the task of mapping ICTs onto literacies is by no means a simple one. To be able to do this we must think carefully about the task that students will be using the application for and then see which elements of our literacy framework will be involved in achieving the task.

Mapping and Sharing Resource

3.1 Knowledge sharing

One of the greatest benefits of the digital age is the potential it offers for collaboration and sharing with others around the world. Teachers, scientists, doctors, artists and people from every profession are able to have contact with their peers and with the thought leaders from their profession. They are able to share and construct knowledge, resources and digital works in a wide variety of formats and mediums.

These enormous benefits also come with some problems. When the internet became the social internet it gave every person with a digital computing device the possibility of publishing online. We now produce and upload enormous amounts, of text video and images to the internet every second. The challenge now is making sure you can find and identify the people, communities, and sources that are both genuine and have genuine value for you. For the reason, the discipline of knowledge management and sharing has become a key digital skill.

3.2 Buddying, mentoring and coaching

Buddying, coaching and mentoring are three useful ways of assisting teacher development. What makes them most useful is the fact that all of the three allow for levels of personalization to the needs of the teacher. It is also important to understand the differences.

- **Buddying**: This is a form of peer-to-peer teacher development. This involves two or more teachers, usually of a similar level of experience and qualification, working together to develop each other's' teaching. Here are some of the activities buddies can help each other with:
 - Working on projects together;
 - Observing each other teaching and giving feedback;
 - Listening to each other's problems and being supportive;
 - Sharing teaching materials;
 - Sharing insights;

Buddying can be particularly helpful when access to formal support and development is not available. Buddying can also be very effective when used with formal teacher development courses and activities.

Buddying can also be started by teachers working independently. It is important though when buddying takes place that teachers choose a buddy who they trust and feel comfortable with, particularly if the buddying activities include peer observation. Buddies should only talk about what they observe with their buddies, this should not be a form of extended teacher control or evaluation.

• **Mentoring**: This form of teacher development usually takes place between a more senior and experienced teacher and less experienced teacher. The senior teacher acts as mentor and becomes an example for the less experienced teacher. Mentoring could include many of the same activities as the buddying ones, but the hierarchy is different.

Mentees may well observe their mentor teaching, but this would be to benefit and learn from the experience. It is common for mentors to model best practice and then buddies would be expected to learn from the mentor rather than give feedback. Mentors would be more likely to guide project work and give feedback rather than being involved as part of the project group.

• **Coaching:** This is considered by many to be the most impactful form of teacher development. Again, the relationship between the coach and the teacher being coached is different. But in this case although coach is likely to be more senior than the teacher, the direction that the coaching would take would be decided by the teacher, not the coach. The coach usually acts as a guide and resource person to help the teachers define and achieve their own goals. Coaching is usually a one-to-one process rather than one to many, although a coach may work with several different teachers individually.

Part of the power of coaching is that the teacher has to take responsibility for the direction of the learning experience and the achievement of the goals they define. Coaches require a great degree of skill and knowledge to be able to guide the teacher and assist them without taking control of the process. The teacher also needs the maturity to take responsibility for their own learning and to make choices and decisions about how and what they want to develop about their teaching.

There isn't one of these methods that is better than the other. All three of these can be very useful at the right time and with the right combination of people.

3.3 Social media and professional development

Although social media is often viewed as a distraction and waste of time for students, it has many benefits for teachers and their professional development. Social media has become a powerful tool for teacher development and many groups, communities, publishing companies and independent teacher educators have developed resources that any teacher can access for free. As well as the availability of resources, social media has also made it possible for teachers to connect with other teachers from any part of the world and share ideas, knowledge and gain valuable insights and perspectives. There are many platforms that teachers can use to access different forms of professional development. Among the most popular platforms are:

- **Facebook:** Facebook has a lot of special features that can be useful for teacher development. The most useful feature is the ability to create groups. Many teachers have used this feature to build special interest groups and well as local teachers' groups and groups based around specific conferences. If you search for groups using the keyword ELT, ESL, TESOL or English language teachers, you will find a wide variety of groups to choose from.
- **Twitter:** Twitter is also a very popular tool with teachers and many teachers regularly share content and interact through Twitter. Although it doesn't support groups in the same way that Facebook does, you can still search based on the same keywords by simply adding a hashtag (#) before the word. This will show you what has been posted

about that topic. You can then see who is posting useful materials and 'follow' them. Twitter is particularly useful if you have limited time. The posting as very short (maximum 280 characters) and often have links to useful content. This enables you to find something useful to develop your teaching very quickly.

- LinkedIn: LinkedIn is like a more professional a serious version of Facebook. Like Facebook, LinkedIn has special interest groups you can join, but it doesn't have the same amount of person content that Facebook has, and much less advertising. LinkedIn also has a built-in publishing tool so if you want to start writing longer postings or a blog, LinkedIn is a great place to get started.
- YouTube: YouTube is a huge resource for video-based content and many teachers have created channels and regularly share videos related to teaching and teacher development there. Most videos support comments and discussion so you can engage with others who have watched the video and post questions. There are a lot of videos on YouTube, but many are very old and poor quality so you should choose carefully. If you find useful videos you can find the channel and who created them and subscribe to get more when new videos are published. YouTube is a great source if you know what aspects of your teaching you want to develop.
- **Instagram:** Instagram is a little like a visual version of Twitter. It's used for sharing images and short video clips. Like Twitter, it is useful if you only have a short amount of time as the content is very concise. It can be harder to search than YouTube, so it is less useful if you want something specific, but it's very useful if you just want to browse and discover something new. IT is good to find creators who you like and follow them. This will help you to find useful content very quickly in your 'feed' rather than having to search for it each time you use the app.
- **TikTok:** TikTok is a little like YouTube. It has lots of video content that users have made. But, it is more like Instagram because it is an app that you browse and swipe through looking at what is new rather than one you search for specific videos. If you follow useful video makers, then TikTok learns what you are interested in and send you more video like the ones you follow. You can search also search for keyword terms and check the videos you find to see if you want to follow the video maker.

In summary, there are a wide range of social media platforms that offer interaction with other teachers and content created by other teachers that can help with your professional development. Try to find the creators of this content by searching for keyword terms and then follow the creators. This will give you the best opportunity to develop your teaching in a useful way.

3.4 Working with buddies

Working with a buddy or buddies can be a very good experience. To make sure that it is a good experience there are some guidelines you should follow.

• Your relationship with your buddy should be a private one, especially if you are observing their teaching and doing peer development. Don't share information about

what you see and learn without your buddy's permission. You should also expect the same from your buddy.

- Choose someone you respect and feel you can work with and learn from.
- Be positive, but honest and sincere with any feedback you give to your buddy.
- Agree together what level of criticism you want from your buddy and what level they want from you.
- Be open to criticism and don't take feedback personally. Always listen carefully to what your buddy has to say and thank your buddy for their feedback. If you are defensive or become upset when your buddy gives you feedback, they won't be able to be honest with you.
- Value what you can learn from working with your buddy and thanks them for the opportunity to work together.
- Plan a schedule of things that you will do together to develop each other. Stick to the plan and be reliable.
- Be open and try to share anything new that you learn with your buddy.

Working with a buddy is a valuable opportunity to learn and build a long-term learning experience that can be very helpful. Keep in contact with your buddy and try to maintain the supportive relationship for as long as you both can.

3.5 Building a bank of resources

The internet has made a lot of teaching and development resources and materials available for free or at low cost. Not all these materials are of the best quality and not all are suitable for us. When we find useful materials, we should save these materials so that we can find them again when we need them. This is why building our own resource bank can be very useful. We can build our own personal resource bank; we can work with a group of teachers at our school to build a resource bank together or we can do both.

3.6 Choosing platforms

There are a number of platforms that you can use to create your resource bank. The one you choose depends on who will have access to it and where they will have access. If the resource bank is only for your own access, you can create a folder system on your computer hard drive and store resources and links to resource there. You should also copy your resource bank onto a portable USB drive so that you can take it with you wherever you go to teach. This will ensure the materials you want are always available. If the resource bank is for a group of teachers, then it is better to store it online so that everyone has access to it from wherever they are. The simplest way to create an online resource bank is to use a service like Google Drive, One Drive or Dropbox. These services provide space to store files and folders online in a similar format to your computer hard drive. They are easy to access and can be public or limited to a specific group of people. When using one of these services for a shared resource bank you should also control who has editing rights. Editing rights control who can view the materials and who can

change or delete the materials. Making sure that only a small group of trained people can edit the resources will help protect your resource bank from any accidents. It can be easy for someone without training to accidentally delete what could be months of work.

3.7 Developing and collecting resources

Before building a resource bank you should create a system for organising and classifying the content you include in your bank. You can organise the materials in a number of different ways but be sure to separate teacher development materials from teaching materials. When organising teaching resources and materials you can group resources into levels or specific courses and lessons that you teach. You can also separate ready to use lessons, such as complete lesson plans with teaching materials, from materials that need development, such as an interesting video you find on YouTube. If you are working on a resource bank that you will share with other teachers, you should also have a quality control process. This can be quite a simple process:

- Ask teachers to submit materials that they think should go into the resource bank along with an explanation of why and how the resource can be used.
- Then, make sure that at least one teacher checks the materials before it is approved to go into the resource bank.

Having a simple two-step process like this can help to maintain the quality of your resources bank and ensure that it is well organised.

Here is a simple submission form you can use when a teacher wants to add a resource to the bank.

Resource bank – Materials submission template

Name of resource: This should be the name of the resource materials

Name of teacher: This should be the name of the teacher submitting the resource

URL link to source: This should be the link to the page on the internet where the resource is located.

Description: This should be a description of the resource and what it includes.

Classification: This should be a description of where the resource should go in your resource bank.

Rationale: This should be an explanation of why the resource should be included and how it can be used.

3.8 Exploring resource collections

There are many resource collections available online and many of these offer free materials that teachers can download. When you explore these resource collections you should try to find out:

- How often are they updated?
- What kind of materials do they offer?
- How appropriate are the materials for your teaching context?
- What is the quality of the materials?
- How can you save and add the materials to your resource bank?

- Can you subscribe and get updates?
- Can you register and are there any benefits to registration?

Finding good quality resource materials that are regularly updated can be very useful and save our time. It can be well worth registering on the site or subscribing to a newsletter or email updates. Once you have registered you will usually get updates sent by email.

3.9 Concept of community of practice (CoP)

Since the internet made international communication and collaboration easy and free, a wide range of communities of practice have evolved online. A community of practice or CoP as they are commonly known is a group of people who share a common goal and interest. These people work together, usually using the internet-based tools to share knowledge and resources over a period of time. The three main characteristics of a community of practice are defined below by The Edmonton Regional Learning Consortium (ERLC- 2016):

- **Domain**: Community members have a shared domain of interest, competence and commitment that distinguishes them from others. This shared domain creates common ground, inspires members to participate, guides their learning, and gives meaning to their actions.
- **Community**: Members pursue this interest through joint activities, discussions, problemsolving opportunities, information sharing and relationship building. The notion of a community creates the social fabric for enabling collective learning. A strong community fosters interaction and encourages a willingness to share ideas.
- **Practice**: Community members are actual practitioners in this domain of interest, and build a shared repertoire of resources and ideas that they take back to their practice. While the domain provides the general area of interest for the community, the practice is the specific focus around which the community develops shares and maintains its core of collective knowledge.

3.10 Difference between CoP and PLN

A Personal Learning Network (PLN) is a more recent concept but one that has also evolved due to ease of mass communication through the internet. PLNs are different to CoPs because they are much more personalized. Each teacher can build their own PLN that focuses on achieving goals that they set for themselves. PLNs can be much less organized and much more spontaneous. PLNs are usually developed using social networking tools and membership of a number of CoPs could be part of a teachers PLN. PLNs are like an extension of the teacher's staffroom. They are a collection of online contacts that the teacher can follow, share with and engage with when they have a question or problems. People within your PLN may be similar to you, but they may have different goals.

3.11 Value of community of practice

A well-structured and organized CoP can have huge value and achieve some very powerful objectives. An early example from the late 1990s is the Webheads in Action. This was a community of tech-savvy teachers who set out to integrate technology into teaching. At this time, there was a lot of resistance from teachers and schools who thought the use of the internet-based resources was a passing fashion. The WebHeads in action organized free training course and webinars to help popularize the use and acceptance of the internet. There work continues at: https://webheadsinaction.org/

Many of the educational technology educators who have been working with technology for more than 25 years were originally part of this group.

3.12 Cultivating a PLN

Creating and cultivating your own PLN can be as simple or as complex as you want it to be. It can also take as much or little time as you have available. The first step in cultivating your PLN is to choose a platform and create a professional profile. When you create your profile on the platform you should:

- use your real name;
- use an image of yourself; and
- include a short professional bio including your professional interests, qualifications, and specializations;

This helps to establish that you are a teacher and that your interests are professional rather than personal. Once, you have created a profile you should find people in your profession to 'follow' or connect with. You can usually do this by searching for the names of well-known people in your profession or by searching keywords related to your topics of interest.

Before following people, you should check to see what they share. Make sure that the people you follow share materials and resources that have value for you. Once, you follow people the content they share will start appearing in your feed.

Following ten influential people who share useful materials can be more valuable then following 100 who do not, so choose carefully who you follow. Following people who share materials that aren't relevant to you will fill your feed with and make it harder to find the material that has value. Once, you follow people you can access your feed whenever you have free time and find useful content. You don't need to read everything that comes through your newsfeed, just select what is most relevant and of most interest to you.

A PLN is a two-way process. You should also give something back to the people who follow you. This could be something that you have written, or you could reshare something that you found valuable and let your PLN know why it had value for you. Sharing is the key to successful PLNs and without it PLNs and CoPs would be impossible.

3.13 PLN platforms

There are a number of useful platforms you can use to build your PLN. Twitter is one of the easiest platforms for developing a PLN. Register and create a profile and start following people or search using keyword hashtags. You will soon start to find useful information. The information appears as a constant stream in your feed. When you have time, log into your account and find something that interests you.

Facebook is a very common platform for building PLN. Like Twitter, it is better to set up a separate account that you use for professional development and professional contacts. Developing a PLN on Facebook will be easier if you join appropriate groups. This will help to put you in touch with people who share information that is relevant for you.

LinkedIn is also useful for developing a PLN. There are also other advantages to LinkedIn:

- You can create a CV with your qualifications and achievements as part of your profile.
- You can create a blog and publish your own thoughts and ideas to develop your professional reputation.
- You can create or join special interest groups to build more contacts.

There are other useful platforms and tools for building your PLN, but these are good ones to start with. You don't have to stick with one platform. You can use all of these and others or you can just focus on one.

3.14 Developing a community of practice (CoP)

In order to develop a CoP it is essential that there is a core group of people who share the same need or goal. This group of people will form the foundation of the CoP. Without a shared goal and a group of people committed to achieving that goal the CoP is unlikely to develop and mature. The development of a CoP usually goes through a number of steps.

- The initial group defines an audience, purpose and vision for the community.
- They then select the technologies, activities, processes and roles that will support the community.
- They pilot the community with a test group of potential members over a period of time to test their assumptions and build commitment from a wider group.
- They launch the community to a wider group over a period of time and engage the new members.
- The members engage in collaborative learning and knowledge sharing activities and develop a cycle of participation and contribution.
- They cultivate and assess the products, learning and activities created by the community to inform new goals and activities that build on the initial ones.

Some CoPs have a natural life cycle and will end once they achieve their aims, but others can continue to develop or divide into multiple new communities with new or different goals.

3.15 Creating an action plan

One of the great advantages of using the internet is that it is always available (i.e., 24 hour 7 days). The constant availability of the internet resources does also lead to procrastination. Because there is no time restriction on when people can study it is easy to constantly delay and do nothing. To avoid this problem, it is good to have an action plan.

To create an action plan, you should:

- define a goal that is realistic and can be measured;
- define some steps you will take to achieve the goal;
- set a deadline for when you will complete the steps;

An example of this could be:

- I will build a resource bank for developing online collaborations skills. This will include links to at least four articles or videos as well as two example lesson plans.
- I will do online research through Google Scholar and consult my PLN. I will choose a suitable platform for the resources. I will share the resources and get suggestions from other teachers at my school as well as my PLN.
- I will complete this plan and review my outcomes within four weeks.

You should also schedule when you will do the actions in stage 2 to ensure that you don't leave everything until the last week and then fail to meet your deadline. Creating action plans like this enables you to take a disciplined approach to developing your teaching. Without this discipline it is likely that you will still have good intentions a year from now, but you will have achieved nothing.

Digital Literacy, Pedagogy and Learning

4.1 Exploring learner voice and engagement

Learner voice which is sometimes described as learner agency refers to the sense of ownership and control that students have over the tasks and activities they do in the classroom. When involving learners in the design and selection of the types of activities they do, you can increase their potential to learn successfully. When students believe their actions can make a difference, in their own lives they become more invested, confident and effective as learners.

4.2 Promoting learner voice in the classroom

Teachers play an important role in promoting and guiding the development of learner voice. They do this by providing a supportive environment and giving students opportunities to exercise their autonomy and work collaboratively to develop their own learning pathways. In order to enable learner voice the teacher must be prepared to give up a large degree of control to the students. This can be very difficult for some teachers. Giving up control of elements of the students' learning involves significant risk for the teacher. This needs to be a gradual process for both the teacher and the learner. Suddenly giving our students control of all aspects of their learning could be very damaging and frightening for the student. It is better for teachers to take a much more gradual approach to enabling student voice. This could start with consulting students about goals, approaches or content and gradually involving the students to a greater degree in these areas.

4.3 SWOT analysis

SWOT is an acronym, which stands for Strengths, Weaknesses, Opportunities and Threats. It is a commonly used tool for analysis. It became popular in the world of business and product development as a tool for analysing the potential of a business, product or business decision. More recently, the technique has become popular in education too. It can usefully be applied to learning tasks and activities as well as learning technologies.

To carry out a SWOT analysis, you examine four aspects.

- Strengths: What is good about the task? What does it do well?
- **Weaknesses**: What does it not do? What negative factors are there? What if any problem does it create?
- **Opportunities**: How could it be used better? How could it be made easier? How could it be changed to get better results?
- **Threats**: What are the dangers of using it? What could go wrong? What negative impacts could it produce?

After examining these aspects, you should try to see how threats can be avoided, weaknesses turned into strengths, opportunities and strengths exploited. The analysis is commonly done

using a grid or matrix like the one below and the various areas that have been identified should be listed in each square.

		Helpful	Harmful
VALUEPROP The Clossic	Internal	STRENGTHS What do we do best?	WEAKNESSES In what areas do we receive the most complaints?
SWOT Analysis	External	OPPORTUNITIES What opportunities are available to you?	THREATS What trends, conditions, or competitors pose a threat to us?

Fig. SWOT Matrix: From 'How to Make Your SWOT Analysis Actionable' - ValueProp

4.4 Learner voice and digital literacy

Learner voice has a distinct role in the development of digital literacy skills. It is to the teachers' advantage to consult with students and find out about the kinds of technologies they use and will need to use and involve them in developing a plan for how they will develop the digital skills they will need for the future they want. Involving students and consulting them on the types of activities that work well for them can help develop their sense of ownership of the learning and so increase the level of engagement with the learning process.

4.5 Levels of learner participation

Research is clear that for students to learn and have a genuine student voice they must be active participants in the planning process and decision making regarding their learning. There are many levels of participation, and we should understand these so that we are sure that we are encouraging learner engagement at the most appropriate and impactful levels.

Levels of participation can be divided into up to eight levels.

- **Manipulation:** At this level, the teacher makes the decisions and manipulates the students into agreeing to something that has already been decided. This manipulation can be conscious or unconscious on the part of the teacher. They may feel they are acting and making decisions in the best interest of their students.
- **Therapy:** At this level, students who express feelings of negativity or who share views that question the decisions of the teacher are treated as though the problem is with them. Rather than having the concerns treated fairly, the teacher treats them as though they have a problem and need help.

- **Informing:** At this level decisions teachers make the decisions about classroom practice and students are informed of the decision. They don't get to voice an opinion and the communication is one way only.
- **Consultation:** At this level students may be informed about decisions made in relation to their classroom practice and consulted so that they can share their views and opinions openly. At this level there is no guarantee though that their views will be valued, or any changes will be made because of the consultation.
- **Placation:** This level includes informing and consulting, and students are also given some small level of influence so that their ideas are taken into consideration but only if the teacher finds them agreeable and they have no real power.
- **Partnership**: At this level all planning and decisions are carried out together and the students act on an equal level with the teacher.
- **Delegated power**: At this advanced level teachers and students will plan together but final decisions are delegated to students.
- **Student control:** At this final level, students would be given complete control to make decisions about their course and the content included as well as how these are approached. Though this may still be within the confines of the teacher's authority to veto some decisions or plans if they are not realistic.

4.6 Understanding engagement

We have all experienced at some time in our lives, tasks that were so engaging we lost track of time and our focus was only on the task. This state was described by the educational psychologist Mihály Csíkszentmihályi as a state of "flow'. Csíkszentmihályi developed 'Flow Theory' whilst researching happiness and fulfilment. He described this state as the optimal state for learning. Here described the state of flow as having eight characteristics:

- Complete concentration on the task;
- Clarity of goals and reward in mind and immediate feedback;
- Transformation of time (speeding up/slowing down);
- The experience is intrinsically rewarding;
- Effortlessness and ease;
- There is a balance between challenge and skills;
- Actions and awareness are merged, losing self-conscious;
- There is a feeling of control over the task;

Further research has also discovered that most people prefer to an element of collaboration when in a state of flow. We should consider many of these characteristics when we design tasks for students to ensure that our activities have the highest possible levels of engagement.

4.7 Benefits of home-school-community links

All the experiences children have, both in and out of school, help shape their sense that someone cares about them, their feelings of self-worth and competency, their understanding of the world

around them and their beliefs about where they fit into the scheme of things. It is very important that there is an explicit link between our students' school experience, the support and involvement of their parents and that of the wider community that they will become a part of.

There are many benefits to establishing close links. There are benefits for the students, the school the parents and the community. By building close links with the community schools can gain support both inside and outside the classroom. Students take more responsibility for their environment and their community when they have regular contact with responsible and senior members of the community. They see that the community is involved and supporting their education.

Establishing these close links takes time and requires regular communication to build trust. Building this trust and relationship should be the responsibility of the school administration rather than individual teachers. Building good relationships with parents is the role of the teacher.

4.8 Digital literacy at home and beyond

We should always be aware that when developing our students' digital literacies we are doing so to enable them to use those skills in their personal lives at home and in their professional lives in the workplace. When evaluating the tasks, we ask our students to do and the technologies we ask them to use, we should always keep in mind how these can support them in the authentic context of their everyday lives.

We should make ourselves aware of the kind of software and how technologies are being used in the professional work place and ensure that we are helping prepare students for success in their future profession.

We should also be aware of the kind of task and technologies people are using in their everyday lives, from digital banking apps, social networking apps, apps for civic engagement and entertainment. We should try to help students develop the knowledge they need to use these as meaningful tools that will help to enhance and advance their lives. Our use of technology with students should never be isolated from their use of technology in their 'real' lives.

4.9 Parent guides to technologies

As we have seen parents can play a key and very positive role in the education of their children. Their ability to help them can be limited by their inability to use technology. Many parents come from a generation when technology wasn't widely available and so many have very poor digital literacy skills. Technology guides for parents can be very useful in helping them to support their children's learning.

When developing technology guides for parents, it is important to consider how they will access these guides and on what device. Developing video guides can be very useful. Videos can demonstrate the use of various tools and parents can watch, pause, and replay videos to get a better insight into how to use the tools and technologies. The main problem with video is that it can be more difficult and expensive for parents to access. Video files are large and if they are downloaded or streamed using the parents' mobile connection this can be slow and expensive.

Technology guides that are developed using text and images can be easier for parents to access. These types of guides can be saved as PDF files which are smaller and easier to transfer. If you develop these kinds of guides, be sure to include lots of images that show the parents what they need to do and which buttons or links they need to click. The problem with these types of guides is that the images need to be very clear, as parents may be viewing these on a mobile phone with a very small screen size.

Printing paper-based guides can be very useful for parents. Parents are more likely to be comfortable using a paper-based guide. They'll also be able to put it alongside the device or technology they are learning to use, so the guide will be easier to follow. The problem with paper-based guides is that can be expensive to produce and they are difficult to update. With technology changing and devolving so quickly, it can be difficult to keep paper-based guides up to date. Each time the interface of a technology changes, screen shots need to be replaced and guides need to be reprinted and distributed.

As you can see, there is no perfect solution to this problem. The option you choose will depend on your understanding of your working context and the context of the parents you work with.

Enhancing Pedagogical and Academic Competencies

5.1 Using technology to enhance challenging activities

Using technology doesn't mean that we have to discard the activities that we do in our technology free classrooms. Technology can be used to redesign those activities and to incorporate an element of digital literacy integration. Blooms Revised Taxonomy is a useful framework for supporting your understanding of how to apply technology to your existing activities. Many educators have worked with how technology can be linked to our understanding of the taxonomy. Here is a useful infographic that illustrates the links between the taxonomy and the types of activities the technology enables.



Bloom's Digital Taxonomy

Fig. Bloom's Digital Taxonomy Infographic Credit: Ron Carranza

As you can see Bloom categorises tasks from ones that require lower order thinking skills to those that require higher order thinking skills.

• Lower order thinking skills are those that are more closely associated with the acquisition of knowledge and basic skills such as remembering, understanding and applying in a more controlled way.

• Higher order thinking skills are more demanding and require a much greater degree of skill, knowledge, personalisation and integration with our values, i.e. analysing, evaluating and creating.

As the infographic shows we can link these levels to the different uses of technology.

- **Remembering:** To recall basic facts and concepts does not necessarily mean that we understand them or can apply them. So, this is the most basic level. Digital activities we might associate with this include:
 - ▹ bookmarking
 - ➢ copying
 - ➢ Googling
 - bullet-pointing
 - ➢ highlighting
 - group networking
- Understanding: To show that we understand ideas and concepts requires a higher level of cognition than simply remembering them. Explain ideas, concepts, or construct meaning from written material or graphics. Digital activities we might associate with this include:
 - ➢ bookmarking
 - ➤ advanced searching
 - ➤ annotating
 - ➢ journaling
 - ➤ tweeting
 - ➤ tagging
 - ➤ commenting
 - ➢ subscribing
- **Applying:** To use information in new situations such as models, diagrams or presentations requires another level of cognition beyond remembering and understanding. Digital activities we might associate with this include:
 - ➤ calculating
 - ➤ charting
 - ➢ editing
 - > presenting
 - > uploading appropriately within a shared resource
 - sharing with a group or community
- Analysing: To draw connections between ideas and concepts and to determine how each part interrelates to an overall structure or purpose requires a further level of cognition. Digital activities we might associate with this include:
 - > mashing (the process of combining two or more digital artifacts into a new one)
 - ➢ mind mapping
 - creating and publishing the results of surveys

- linking and validating
- **Evaluating:** To justify a decision or make judgements based on criteria and standards through checking and critiquing information requires another higher level of cognition. Digital activities we might associate with this include:
 - > grading
 - ➢ testing ideas
 - reflecting on learning
 - ➢ reviewing
 - commenting blogs
 - posting comments
 - > moderating forums within communities or on social media
- **Creating**: Produce new or original work based on our understanding of concepts and ideas and evolving those ideas requires the highest level of cognition. Digital activities we might associate with this include:
 - creating animation
 - writing blog posts
 - creating film or video clips
 - creating podcasts
 - publishing original blog posts
 - building wikis
 - video blogging and programming

As you can see Bloom's revised Taxonomy can provide us with a useful guide to help integrate technology with the activities that we already use in our classroom and enhance those activities with an element of digital skill development.

5.2 Using technology to redesign activities

As we saw in TRM of first phase, SAMR is a useful tool for guiding how we can use technology to redesign our classroom activities. The full form of SAMR is;

- Substitution
- Augmentation
- Modification
- Redefinition

SAMR was introduced by Dr Ruben Puentedura in 2006. SAMR is a paradigm for understanding how we can integrate technology into education, though with the proviso that if we want to use technology in a way that is truly transformative, we should be aiming to develop tasks and activities that are more towards what it describes as the 'modification' and 'redefinition' parts of the SAMR model.

SAMR



Fig. The SAMR Model Credit: Nik Peachey - PeacheyPublications

Understanding the above given figure helps us to analyse the way we are using technology to enhance and transform education. It also helps us how we evolve the way we use it, from the more superficial 'substitution' type tasks to ones that redefine the way students interact with content, each other and the teacher.

Here are the four ways it classifies the application of technology along with an example of how a task could be developed through the understanding and application of this process.

- Substitution: Technology acts as a direct substitute with no functional change. The task • the same. used remains but a computer is as part of that task. E.g. find a text online to use in place of one of the texts in your course book. Ask your students to read it and answer comprehension questions.
- Augmentation: Technology acts as a direct tool substitute for an analogue activity, but with functional improvements.

E.g. find a text online to use in place of one of the texts in your course book. Ask students to use some digital tools to mark up the text with notes, highlight specific areas to remember and use an online dictionary to check new vocabulary.

• Modification: Technology allows for significant task redesign.

E.g. find a text online to use in place of one of the texts in your course book. Ask students to use some digital tools to mark up the text with notes, highlight specific areas to remember and use an online dictionary to check new vocabulary. Then ask students to share their reflections about the text on a blog which is shared within a wider educational community. They then comment on each other's posts. They later meet in a virtual live forum to discuss and debate the content.

• **Redefinition**: Technology allows for the creation of new tasks previously not possible. E.g. find a text online to use in place of one of the texts in your course book. Ask students to use some digital tools to mark up the text with notes, highlight specific areas to remember and use an online dictionary to check new vocabulary. Students then work collaboratively to research the background to the text online and create a digital survey about it. They share the survey through social media. They then collect and analyse the data from the survey and work together online to create an infographic or video report of their analysis of their survey responses.

Approaching technology with this kind of awareness can certainly have its benefits, and SAMR has attracted the attention of the educational practitioners.

Presentation of Learning Experiences and Sharing Feedback & Project Work

6.1 Researching new technologies

Technology is constantly developing and keeping up with the changes. Keeping up with technological developments should be an important part of our professional development because the impact of technology on education will continue to grow. Some of the best ways to keep up with what's happening in educational technology are:

- Creating a PLN and following teachers and influencers who write about the use of technology in education.
- Joining or forming a CoP that investigates the use of technology in education.
- Joining Facebook groups that include teachers who share new technologies they use with their students.
- Following teacher bloggers who share articles about the technology they use with their students.
- Subscribing to online academic journals or websites that have articles about the use of educational technology.
- Looking out for and attending webinars about educational technology.
- Taking online courses about the use of educational technology.
- Attending face to face conferences about educational technology.

6.2 Choosing technology and element of digital literacy

When evaluating new technologies and thinking about how we can use them we should think about what elements of digital literacy development the technology can enable. When we do this we should focus on elements of digital literacy:

- Functional skills
- Collaboration
- Creativity
- The ability to find and select information
- Critical thinking and evaluation
- Effective communication
- E-Safety

Think about which of these elements are involved in using the tool. It may well be more than one. Consider how you can support students in helping them to use this technology to enhance their learning. You should also think about how the use of the technology can fit with your syllabus and relate to the general theme of your classes. You should also think about how the technology can be used by students outside of their classroom in their day to day lives and how it can help students self-actualise. We should not be teaching students to use technologies that don't serve a real and lasting purpose as part of their lives.

6.3 Project work

Project work can be a powerful tool for teacher professional development. Many teacher development courses happen over a short period of time with a pre-planned curriculum, so they don't always address the more individual needs of each teacher and their specific teaching context. Project work can be a way of addressing this problem.

- Project work takes place over a longer period of time.
- There is more flexibility in the outcomes of the project.
- Teachers take more control of and responsibility for the projects. This makes it easier for the teachers to adapt them to their own context and goals.
- Project work usually involves more than one teacher and so participants have the opportunity to learn from others and develop their ability to work collaboratively.
- The knowledge of the team always exceeds the knowledge of the individual so working in teams or groups to do projects usually leads to more successful outcomes.

There are some disadvantages of project work:

- It can be difficult to put in the time to make the project successful.
- They require more discipline. You have to be careful to organise your time and make sure you don't leave work until the last minute.
- When working in teams, one weak partner can impact on the complete team.
- Motivation levels can drop the period of the project.

Despite these disadvantages, if projects are well organised and planned then they can be very powerful.

6.4 Setting up shared online space for project work

When working on projects, particularly in groups it is wise to set up an online workspace. You easily do this using Google Drive, One Drive or Dropbox. All of these services provide online storage space where you can set up folders and store files. Make sure you work together with other people in your team to decide what the structure of the space should be and how the files and folder will be named. In addition to storage, space for working files you should also choose some appropriate communication and meeting tools that you can all access. These will be useful for maintaining communication with other members of your project team.

6.5 Outlining and drafting project works

Working on projects usually involves work that is done over a period of time. The work is usually shared by a number of people, so it is best to start by planning who will do what and by when. A plan can help ensure that everyone knows what their responsibilities are and by when they have to complete them. When making a plan you can follow these steps:

• Make an outline of what you want to achieve and what the outcome of you your project will be. This helps you to understand what will need to be produced.

- Next, try to break the work into smaller tasks that need to be done to produce your outcome. These could be things like writing lesson plans, designing materials, trialling lesson plans, doing research before planning lesson, brainstorming ideas, etc. Try to break the work down into as many tasks as possible. Having a number of smaller tasks will make your overall project easier to complete.
- Next, put these tasks into the order they need to be done and look for dependencies. Dependencies are tasks that need to be completed before another task can be started.
- Once, you have all of the tasks in order you can start to plan how long you will need to do each task and by when you will need to complete each one. To do this, it is best to work backwards from your final deadline.
- When planning how long task will take, be realistic. Also look for tasks that can be done in parallel. These are ones that don't have dependencies.
- Next, allocate the tasks to different members of your team.
- Plan in a number of group reviews, when you can meet the other members of your group and check on the progress of each persons' task.

Planning in this way should ensure that everyone knows what they have to do and if any deadlines are slipping, you have time to do something about them.

6.6 Working on projects

Working on projects can be very rewarding. If you are working on a project that involves trying something new or doing something new with your students, be sure to try to involve them. Let them know what you are doing and get their feedback afterwards. Students spend a long time in the classroom and can often give teachers very valuable insights into the things they are doing.

When working on projects be sure to maintain good communication with other people in your team and check regularly to see if other members of your team need support. In order for you to be successful in your project you also need to ensure the other members of your team are successful. Teams that work well together and support each other are usually much more successful than those that have internal competition.

6.7 Sharing and receiving feedback

Research has shown the feedback can be one of the most valuable elements for both students and teachers. For feedback to be useful and successful, it must be delivered and received in an open, honest and constructive way. Tips for giving constructive feedback are:

- Give factual feedback based on your observations rather than your feelings.
- Be specific in your feedback. If you think something can be improved, say what and how.
- Be realistic about what you think the person can improve. Don't expect perfection.
- Own the feedback and use the first person 'I'. Remember that the feedback is your opinion, not fact.
- Be timely. Feedback is best delivered as soon as possible, but it should also be delivered in an appropriate place. Some feedback is best delivered privately.

- Always focus on how to improve, not went wrong.
- Check whether your feedback has been understood.

Tips for making the feedback you get useful:

- Listen to the feedback carefully without interrupting or becoming defensive.
- Give careful thought to the feedback and assess it. Don't respond to feedback immediately.
- Be open and don't try to restrict the feedback. Use open questions when asking for feedback, e.g. "What colour do you think this should be?" Rather than "Should this be black or blue?"
- Ask for feedback about facts rather than feelings, e.g. "Do you think this achieves our aims?" Rather than "Do you like this?"
- Don't be defensive, dismissive or contradict the person giving feedback. Listen and thank them, then make your own decision about how much value the feedback has for you and how you use it.
- Evaluate the feedback you get and decide what action you need to take.
- Ask question if the feedback isn't clear or if you want the person to clarify something.
- Be careful about your tone. Even if you don't agree with the feedback stay calm and see the person as a friend who is trying to help you.
- Always thank the person giving the feedback. They have given you their time to try to help you.

Regular feedback is a vital part of your development as a teacher. Welcome it and take whatever opportunities you can to get feedback.