Technology for Teaching and Learning 1 (TTL1) Module

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Module 1

Introduction to Technology for Teaching and Learning

Module Overview

"Technology is just a tool. In terms of getting the kids working together and motivating them, the teacher is most important."
– Bill Gates –

Lessons in this Module

- Understanding the Basic Concepts Related to Technology
- Roles of Technology for Teaching and Learning

Hello students! Welcome to Technology for Teaching and Learning 1- Module 1.

In this module, essential terms and constructs of getting the knack of technology for teaching and learning are defined. You will encounter these terms as we go through in this course. Also, this module introduces to students the roles of technology for teaching and learning.

At the end of this module, you are expected to:

- Define terms and concepts essential to the understanding of technology for teaching and learning
- Use the concepts and terms in communicating with peers
- Explain the roles of technology in teaching and learning
- Portray the value of technology in supporting student learning

Are you ready? Then start the lessons now!

Lesson 1

Understanding the Basic Concepts Related to Technology

Learning Outcomes

At the end of the lesson, you should be able to:

- Understanding the Basic Concepts Related to Technology for Teaching and Learning
- Use concepts and terms in communicating with peers.

Time Frame 2 days

Introduction

Welcome to Lesson 1 of Module 1! This lesson will provide you a flavor of essential ideas in technology for teaching and learning.

Activity

Write honestly the words you are familiar with. Write your idea on the box below about the word/s you see from the picture.

Analysis

- How useful is the technology for teaching and learning?

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- What are the terms and concepts related to technology for teaching and learning?

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Abstraction

The following terms and concepts are related to technology that you need to digest.

1. **Technology** refers to methods, processes, and devices used for practical purposes. It includes instruments from pencil and paper to modern electronic gadgets and tools for the practical task.

2. **Information and Communication Technology and Literacy or ICT Literacy** is the use of digital technology, communication tools and networks to access, manage, integrate, evaluate, create and communicate information (Guro 21, 2011).

3. **Educational Technology** refers to the utilization of technology in teaching and learning, which includes both the non-digital (flip charts, pictures, models, realia, etc.). And digital (electronic tools: hardware, software, and connections, etc.).\

4. **Digital Literacy** refers to the ability to discover, assess, utilize, share, and generate content with the use of information technologies and the internet (Cornell University).

5. **Digital Learning** is an instructional practice that utilizes technology to reinforce students' learning experience. It covers the use of a broad spectrum of processes that comprises blended or virtual learning. It can come as online or off-line, which utilizes digital technology.

6. **Online Digital Tools and Apps** use an Internet connection to access the information needed, like Skype. It is a telecommunication application software product that focuses on providing video chat and video calls between computers, tablets, mobile devices via the Internet and to regular telephones.

7. **Off-line Digital Tools and Apps** can still be used even if there is no internet access. Among these are Canary Learning, Pocket, Evertone, iBooks, KA LITE (Gupta, Prinyaka, 2017).

8. **Instructional Technology** refers to the theory and practice of design, development, utilization, management, and evaluation of the processes and resources for learning (Association for Educational Communications and Technology, Seels, B.B. &Richey, P.C. 1994).

9. **Software** refers to program control instructions and accompanying documentation stored on disks or tapes when not being used in the computer. By extension, the term refers to audiovisual materials (Smaldino, 2005).

10. **Multimedia** is a sequential or simultaneous use of a variety of media formats in a given presentation or self-study program (Smaldino, 2005).

11. **Internet** is a massive network of networks, a networking infrastructure. It connects millions of computers globally, forming a network in which any computer can communicate with any other computer as long as they are connected to the internet. It is generally defined as a global network connecting millions of computers (http://www.webopedia.com).

12. **World Wide Web** (www) is also called a Web, which is a graphical environment on computer networks that allows you to access, view, and maintain documentation that can include text, data, sound, and videos (Smaldino, 2005). It is a way of accessing information over the medium of the internet. It is an information-sharing model that is built on top of the Internet.

13. **Web Access** is the ability of the learner to access the Internet at any point during the lesson to take advantage of the array of available educational resources.

14. **Webquest** is an inquiry-oriented lesson format in which most or all information that learners work with comes from the web. These can be created using various programs, including simple word processing documents that include links to websites.

15. **Productivity Tools** refers to any type of software associated with computers and related technologies that can be used as tools for personal, professional, or classroom productivity.

Examples: Microsoft Office, Apple Works – word processing, grade and record-keeping, web page production, presentation) (KFIT-Unesco 2016).

16. **Technology Tool** is an instrument used for doing work. It can be anything that helps you accomplish your goal with the use of technology. These technology tools can be classified as:

    a. **Data/Calculation Tools.** Examples: spreadsheets, Excels, Sketchpads, probability constructor
    b. **Design Tools.** These are used to make models and design, creating, and building. Included here are Family Tree Maker, GollyGee, and Crazy Machines, among others.
    c. **Discussion Tools.** Four different approaches utilize discussion and interaction on the Internet. These are threaded discussion forum, Blogging, Live chat, and Video Teleconferencing, Netiquette, and Safety on the Net.
    d. **Email Tools.** Emails are great communication tools for sending messages, photographs, videos, and other files. It allows you to reach out to others around the world. Examples are google mail, Ymail, Yahoo mail, and many more.
    e. **Handheld Devices**. Handheld devices have become popular among learners. These include Personal Digital Assistants, global positioning system, (GPS) and Geographic Information system (GIS) in the classroom, Portable electronic keyboards, Digital cameras, Mobile phones, Palm, Handheld computers.

17. **Webquest** is a teacher structured research experience for the students that are primarily based on the use of the World Wide Web and typically takes one or more instructional periods (Bender & Waller, 2011).

18. **Blog** is an online journal where posted information from both teachers and students is arranged. There are three kinds of blogs: blogs used for communication, blogs used for instruction, and blogs used for both (Ferriter & Garry, 2010).

19. **Wiki**, an editable website usually with limited access, allows students to collaboratively create and post written work or digital files, such as digital photos or videos. Wikipedia is one of the most widely recognized of all the wikis (Watters, 2011).

20. **Flipped classroom** utilizes a reverse instructional delivery, where the teacher is required to use the web resources as homework or out of class activity as initial instruction of the lesson, which will be discussed during class time.

21. **Podcast** is a video or audio multi-media clip about a single topic typically in the format of the radio talk show. The two essential functions of a podcast are to retrieve information to disseminate information (Eash, 2006).

22. **Google Apps** is a cloud-based teaching tool which is stored in the Google server and is available for students both at home and in school. It includes the Gmail, a free-mail for all; Google calendar – a tool used for organizational purposes; Google sites that provide options for developing blogs and wikis; and Google docs are used for sophisticated word processing and editing for the document.

23. **Vlog** is a video blog where each entry is posted as a video instead of the text.

24. **Facebook** is a popular social networking site used by students and adults worldwide to present information on themselves and the world.

25. **VOIP** (voice over internet protocol) is a category of hardware and software that enables people to use the Internet as a transmission medium for telephone calls by sending voice data in packets using IP rather than traditional circuit transmission.

Application

1. Make a wordlist of terms of at least 20 ICT-terms with definitions or descriptions. Write in your references (APA Format) to the sources of your explanations.
2. Identify three (3) concepts that you learned in this lesson. Write your ideas about the idea.

Closure

Congratulations on the job well done. You can now proceed to the next lesson “ Roles of Technology for Teaching and Learning

Lesson 2

Roles of Technology for Teaching and Learning

Learning Outcomes

At the end of the lesson, you should be able to:

- Explain the roles of technology in teaching and learning
- Portray the value of technology in supporting student learning

Time Frame 2 days

Introduction

Welcome to Lesson 2 of Module 1. Now that you have unpacked yourselves with the terms and concepts in technology for teaching and learning, you are now going to learn about the roles of technology for teaching and learning, which are divided into two: For teachers and teaching and for students and learning. The three domains of educational technology will also be tackled in this lesson.

Activity

- Go back to your learning experiences in school. Recall specific ways by which the use of educational technology helped you learn.

_____
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- Write a short paragraph on how helpful technology is in your life as a learner.

_____
_____
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Analysis

- What are the roles that technology plays in the work of a teacher?

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_____
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- What are the roles that technology plays in the learning of students?

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- Many college students are presently required to take computer courses inncluding word processing, spreadsheet preparation , presentation techniques, etc. How do you think this will help application of skills in teaching?

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- How can learners benefit most in the use of technology?

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_____
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_____

Abstraction

Roles of Technology for Teaching

According to Stosic (2015), educational technology has three domains:

1. Technology as a tutor. Technology can support the teachers, tutors and other professionals to help students learn better.
2. Technology as a teaching tool. Technology can be used as an instrument in teaching.
3. Technology as a learning tool. Technology makes learning easier and more effective. use these tools for learning for life.

A. For Teachers and Teaching

1. Provides essential support to teachers.
2. Modernizes the teaching-learning environment.
3. Enhances teaching-learning methods and strategies in teaching.
4. Opens opportunities for educational research.
5. Improves the capabilityof teachers and inculcates scientific attitude.
6. Serves as an avenue for teacher professional development.
7. Encourages scientific attitude.

B. For Learners and Learning

1. Supports learners on learning how to learn on their own.
2. Develops the communication skills of learners through social interactions.
3. Augments learners' higher-order-thinking skills: critical thinking, problem solving and creativity.

Application

Write a paragraph on how you are going to use technology when you become a teacher.

Closure

Congratulations because you gained knowledge of the roles of technology in the teaching-learning process.

Module Assessment

This test aims to evaluate how the learners are learning about Module 1. Encircle the letter of the correct answer.

1. The following are purposes of using WebQuest EXCEPT
   A. To encourage the students to use information in meaningful classroom discussions.
   B. To introduce new knowledge and to strengthen knowledge.
   C. To acquire knowledge through reading.
   D. To develop higher-order-thinking.

2. John has the skill in using information and communication technologies to find, evaluate, create and communicate information. What ability is manifested?
   A. Digital literacy
   B. Numerical Literacy
   C. Reading and Writing Skill
   D. Assessing and Evaluating Skill

3. It refers to a global network providing various information and communication facilities which consist of interconnected network.
   A. WebQuest
   B. Blog
   C. Internet
   D. Google Apps

4. This refers to the integration of multiple forms of media which includes text, graphics, audio, video etc.
   A. Visual aids
   B. Educational radio program
   C. Motion pictures
   D. Multimedia

5. This is a type of learning facilitated by technology that allows students to have control over time, place, path or pace.
   A. Digital learning
   B. Deep learning
   C. Digital teaching
   D. Instructional learning

6. Teacher Gina uses tablets, video conferencing and smartboard for effective teaching. What domain of technology is this?
   A. Technology as a teaching tool
   B. Technology as a learning tool
   C. Technology as a tutor
   D. Technology as a program

7. The following are roles of technology for teachers and teaching EXCEPT
   A. Enhances passive classroom to alive classroom.
   B. Improve higher-order-thinking skills of students.
   C. Improves teaching performance of teachers.
   D. Provides an avenue for professional development

8. Jennifer has the ability to think with reason, understand the logical connection between ideas and ability to identify, analyze and solve problems systematically. What is manifested by Jennifer?
   A. Higher-order-thinking skill
   B. Creative thinking
   C. Reading literacy
   D. Numerical literacy

9. Which statement about technology in teaching and learning is FALSE?
   A. Technology has modernized teaching and learning.
   B. Use of technology enhances higher-order-thinking skills.
   C. Millennial teachers are not ready to use technology in teaching.
   D. Technology use is indispensable.

10. This is characterized by the ability to perceive the world in new ways and ability to generate ideas and alternatives useful in solving problems.
    A. Higher-order-thinking skills C. Novelty
    B. Manipulative skill D. Creativity

MODULE SUMMARY

Congratulations for you have completed Module 1-Introduction to Technology for Teaching and Learning.

- Important terms and concepts related to technology were defined and discussed like technology, educational technology, instructional technology, information and communication technology, digital literacy and digital learning, digital tools, technology tool, and other terms related to modern technology.

- In addition, educational technology has three domains: tutor, a teaching tool, and a learning tool. Educational technology is useful for teachers for it augments their

performance in teaching. It is also beneficial for students because it supports learning, improves communication skills, and enhances higher-order thinking skills.

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LESSON 2: Understanding the Basic Concept in ICT | Fandon .... https://fandon.fandom.com/wiki/LESSON_2:_Understanding_the_Basic_Concept_in_ICT

Module 2

ICT Policies and Safety Issues in Teaching and Learning

Module Overview

"There can be infinite uses of the computer and new-age technology, but if teachers themselves are not able to bring it into the classroom and make it work, then it fails."

-Nancy Kassebaum-

- ICT National or International Policies That Are Applicable to Teaching and Learning
- Safety Issues in ICT
- Uses of ICT Policies in the Teaching and Learning Environment

Welcome to your journey for an exciting fact about Module 3!

Restrictions of distance have been broken by technology at present times. Now when we live in a technology-based society, ICT learning is one of the best methods of teaching students through virtual classrooms. The relationship between ICT and Education has been one of rapid change from technology to learning. Schools increasingly determine new technologies and models for teacher professional development in enhancing teaching and learning (Ndongfack, 2010). The importance of national policies and programs for the realization of ICTs can be an essential tool in education. According to Schmidt, et al., (2009), the way teachers use ICT tools for effective teaching can be an important tool for information communication technology development for learning and teaching.

At the completion of this module, you should be able to:

- enumerate the national ICT policies affecting classroom practices
- describe the implementation of ICT policies in teaching-learning
- identify ICT policies that are incorporated to the design and implementation of teaching-learning activities

Are you ready? Then start the lessons now!

Lesson 1

ICT National or International Policies That are Applicable to Teaching and Learning

Learning Outcomes

At the end of the lesson, you should be able to:

- Understand ICT in Education
- Define basic concepts in understanding ICT in Education
- Enumerate the national ICT policies affecting classroom practices

Time Frame 2 days

Introduction

Information and Communications Technology (ICT) can impact student learning when teachers are digitally literate and understand how to integrate it into the curriculum. When you want every student to enumerate national ICT policies, each time you teach, understanding the existing and planned national policies related to ICT, may help you achieve your goal. You will find the answers to this question in this lesson.

Activity

1. Write down the policies and suggest what to do to implement the ICT in Education policy first at the national level (all schools) and then how to implement the policy in our classroom.

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   _____
   _____
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   _____

2. Individuals prepare a presentation for class discussion.

Analysis

ICTs are not only an instructional means to provide prerequisite learning activities; they offer an exploratory space where the learner is in charge. Write down a list of the international and national ICTs as a learning tool you think can improve quality in education.

Abstraction

The international policymakers join forces to successfully implement ICT in educational practice to address the individual needs of students, the implications of technology for student assessment, and teacher learning to successfully implement technology (Voogt, 2013). A National ICT Policy is a policy put into place so that the government and stakeholders can have access to information that is committed to bringing digital technology to all individuals and communities.

The provision of ICT to academic staff and students is critical to recommend them to more effective learning environments. By overcoming the needs and reinforcing the functional aspects, it may help decision-makers to employ academic staff on an investigation of the status of the developments of ICT in improving the teaching and learning environment in educational institutions. (Alzahrani, 2017).

The ability of policymakers to innovate on related policy issues outperform technological innovations because it changes and evolves. Different institutions in different countries formulated and proposed policies in various forms. Lack of rigorous and significant evidence complicates the attempts to outline impactful ICT/education policies.

The World Bank's Systems Assessment for Better Education Results (SABER) initiative, as part of their work, attempts to document national educational technology policies around the world and their evolution over time. Policymakers try to benchmark their policies on ICT use in education against international norms, so a related SABER-ICT policy framework has been developed. Likewise, those of comparator countries around the world, identify key themes and characteristics, draw on an analysis of their policy documents.

There are eight policy themes around the world that are commonly identified in educational technology policies; (1) vision and planning; (2) ICT infrastructure; (3) teachers; (4) skills and competencies; (5) learning resources; (6) EMIS; (7) monitoring and evaluation; and (8) equity, inclusion, and safety. The framework only considers policy intent but not the extent to which policies are realized in practice, nor the impact of such policies. The policymakers are challenged to offer useful related policy guidance for rapid developments and innovations in the technology sector (Trucano, 2016).

SABER-ICT policy framework may find useful by policymakers as a means to help their country benchmark the current state of related policy development. It can look forward to potential future policy directions and gain inspiration from other countries.

There are two official documents wherein Policy on the use of ICTs in the Philippine basic education system is articulated. The Medium-Term Development Plan of the Philippines (MTPDP) 2004-2010. The MTPDP states:

"ICT will be harnessed as a powerful enabler of capacity development. It will, therefore, be targeted directly towards specific development goals like ensuring basic education for all and lifelong learning, among others" (National Economic Development Authority, 2004a, p. 2)

and the 2002 Basic Education Curriculum (BEC), that stipulates the following goal of Philippine primary education:

"We must educate our Filipino learners to filter information critically, seek credible sources of knowledge, and use data and facts creatively so that they can survive, overcome poverty, raise their personal and national esteem, and realize a gracious life in our risky new world." (p. i)

The Philippine government, especially the Department of Education and Department of Science and Technology, has forwarded ICT educations through policies and projects. The Restructured Basic Education Curriculum launched in 2002 aimed to implement an interactive curriculum and to integrate technology in instruction and education, with computer literacy much emphasis. The Act of 1998 (R.A. 8484) was passed to generate the participation of companies and to engage the private sector. There are programs with DepEd through streamline data collection to improve ICT education. To help schools to participate in ICT-related programs, the DepEd Computerization Program (DCP) was implemented.

According to Arinto (2006), policy statements on ICT integration in Philippine primary education reflect a human development perspective. However, critical ICTs for schools' programs tend to be informed by a human capital approach. The human development perspective joined the mainstream of education and development in the 1990s, and it now reinforces the international consensus on Education for All and the Millennium Development Goals, However, many educational reform efforts. It continues to influence the human capital perspective (Avalos, 2003).

Application

As a whole class, you plan to organize a forum inviting a resource speaker to talk on ICT on national and international policies applied to teaching and learning

Well done! You have just finished Lesson 1 of this module. Should there be some parts of the lesson which you need clarification, please ask your teacher during your online interactions.

Closure

Now if you are ready, please proceed to Lesson 2 of this module which will discuss safety issues in ICT

Lesson 2

Safety issues in ICT

Learning Outcomes

At the end of the lesson, you should be able to:

- Describe the implementation of ICT policies in teaching-learning
- Know and understand existing and planned national policies related to ICTs in Education

Time Frame 3 days

Introduction

Understanding the safety issues in ICT would help students to understand why learners there are issues of cyberbullying. This lesson will describe the implementation of ICT policies this information in improving the delivery of teaching-learning.

Activity

1. Write a 3-5 page critique paper critically examining the implementation process of technology integration about ICTs in education

2. Learners share knowledge with classmates.

3. In groups, discuss the policies and suggest what to do to implement the ICT in Education policy first at the national level (all schools) and then how to implement the policy in your classroom.

4. Once the group has an overview of the policy environment, they need to start thinking about how to implement the ICT safety issues in cyberbullying.

Analysis

1. Organize small groups to interview and explain how existing and planned national policies impact classroom practices and how their classroom practices correspond to and support policies related to ICT.

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   _____

2. What is the impact of ICT in Education Policy to teaching and learning?

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3. Interview a cyberbullied student and what are your suggestions to improve student performance related to the discussion of safety issues in cyberbullying?

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Abstraction

"*Technological change is not additive; it is ecological. New technology does not merely add something; it changes everything.*"

Originally, with the active participation of the learner instructor, the implementation of ICT in education was to change the teaching and the learning process from the traditional instructional teacher-centered endeavor to a learner-centered approach with the active participation of the learner coach (Voogt et al., 2013).

The most natural part for the effective integration of ICT into the educational system is given enough capital although the process of integration is complex and multifaceted, like in curriculum and pedagogy, teacher competencies, institutional readiness, and long-term financing,

To improve the quality of education, policymakers and implementation managers must have a clear vision in investments of ICTs that requires a vast amount of money.

Such massive investments require not only careful planning for skills enhancement of both teachers and learners but also thoughtful implementation. Both policymakers and implementation managers at the national and institutional levels need to plan for the introduction of high technology and understand the contextual complexities of the educational ecosystem of the communities.

Youths acquire ICT skills faster than adults, according to the studies of the World Youth Report (2003) and more likely to share these skills with their peers either intentionally or through interaction. Hu & McGrath (2012) study reports on the implementation of the national reform in Chinese secondary schools. The study focused on the use of ICT in teaching the English language. Findings indicated that the majority of the teachers have a positive attitude towards ICT and happy with the current ICT use in English. Moreover, results showed that some teachers find difficulties in changing from the traditional pedagogical method of teaching to a technological based pedagogy. Hu and McGrath (2012) suggested that continuous professional development programs that can motivate the attitudes of teachers positively to equip them with new ICT skills

After substantial worldwide implementation ICT in schools, studies have found out that those teachers who are more proficient in using ICT focus on the internet search and word processing instead of project-based teaching ()Phelps, Graham, & Watts, 2011). Mingaine (2013) observed that despite the benefits of ICT, the school management had not fully implemented the policies developed by the Ministry of Education in Kenya. They assert that some schools had developed guidelines on how to implement ICT, but no attempt was made to achieve them. This prompted an investigation of challenges that hindered the efficient implementation of ICT in public secondary schools in Meru County.

Mooij and Smeets (2001) suggested five successive phases of ICT implementation representing different levels of ICT transformation of the educational and learning processes. These include:

(1) the incidental and isolated use of ICT by one or more teachers

(2) increasing awareness of ICT relevance at all levels

(3) emphasis on ICT co-ordination and hardware

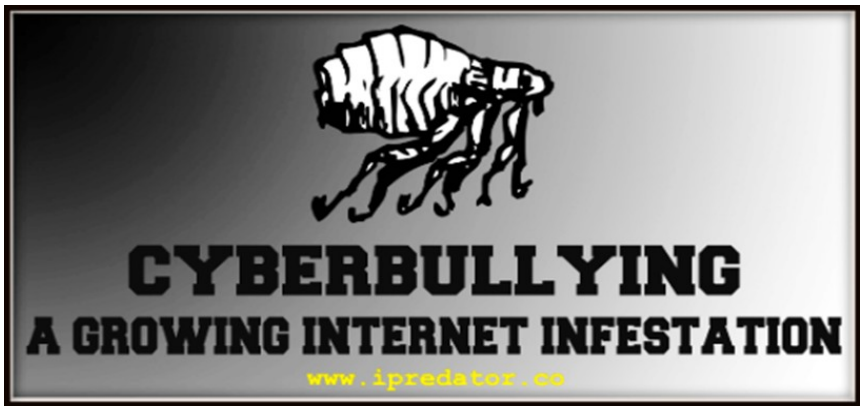
(4) focus on didactic innovation and ICT support

(5) use of ICT-integrated teaching and learning that is independent of time and place

The study of Tondeur et al. (2008) entitled “ICT integration in the classroom: challenging the potential of school policy. Findings showed that there is a potential impact of policy-related factors on the actual integration of ICT in teaching-learning in daily classroom instruction. Results suggested that success in ICT integration is related to activities at the school level, like, ICT support, the development of an ICT plan, and ICT

training. The results also suggest that principals have a big role in facilitating the policies put in place when defining this policy.

Implementing ICT safety issue policies regarding cyberbullying



You might have heard the term' cyberbullying,' and it means to try to hurt someone's feelings by using ICT such as the internet, email, chatrooms, and texting to deliver demeaning messages at any time and through a variety of avenues. Today's children with online access and equipped with digital mobile phone or social network account can receive cyberbully messages anywhere and at any time, and these digital messages can also be anonymous, that increase the amount of fear experienced by the target child. This intense psychological stress of victims of bullying unfavorably affects a child's ability to concentrate on schoolwork, and school lessons or activities.

Children who experience classic bullying and cyberbullying adversely affects their academic performance. Those who experience classic bullying are likely to avoid locations and activities they associate with negative experiences; likewise, cyberbullied victims try to avoid the technological spaces. In cyberspace, technological areas such as social media networking sites, online websites, social networks, chat programs, and school computer rooms are all vital elements in the educational development and social lives of students relevant to their academic success. As technology and technological skills become more critical in modern academics and professional training, cyberbullied, students face several academic and career difficulties.

The Government today unveiled tough new measures to be like the UK that is the safest place in the world to be online.

These are the suggested safety policy measures:

- Independent regulator will be appointed to enforce stringent new standards
- Social media firms must abide by mandatory "duty of care" to protect users and could face hefty fines if they fail to deliver
- Measures are the first of their kind in the world in the fight to make the internet a safer place

In the first online safety laws of their kind, social media companies and tech firms will be legally required to protect their users and face severe penalties if they do not comply. The eSafety Toolkit for Schools is designed to support schools to create safer online environments. The resources are backed by evidence and promote a nationally consistent approach to preventing and responding to online safety issues.

The resources are categorized into four elements: *Prepare, Engage, Educate, and Respond.* Each contributes to creating safer online environments for school communities, whether the resources from each element are used on their own or collectively, each contributes to creating safer online environments for school communities.

- ***Prepare***

Prepare resources to help schools evaluate their willingness to deal with online safety issues and deliver suggestions to improve their practices. They are useful for strengthening school policies and procedures in online safety.

- ***Engage***

All members of your school community should be active participants in creating and maintaining safe online environments. Engage resources to encourage the participation of the school community in creating a safe online environment. They help engage school community members as involved and valued participants, and they facilitate the real involvement of students.

- ***Educate***

Preventing an online incident is always better than having to respond to one. The Educate resources support schools in developing the knowledge, skills, and capabilities of students, staff, and parents to have positive and secure online experiences. They bid best practice guidance for online safety education and sit alongside eSafety's complement of curriculum-aligned teaching-learning activities.

- ***Respond***

There must be processes in place in case an incident happens so that it is controlled appropriately. The Respond resources support schools to evaluate and respond to online incidents effectively. They preserve digital evidence, offer guidance to understand reporting requirements, minimized more harm, and supporting wellbeing.

eSafety developed the Toolkit in consultation across every state and territory with government and non-government education sector representatives. It was established in response to the Royal Commission into Institutional Responses to Child Sexual Abuse and the Education Council's work program to report bullying and cyberbullying.

Application

Based on your activities, make a mind-map of the decisions you face concerning the implementation of ICT policies in teaching-learning and the safety issues in ICT regarding cyberbullying.

Closure

Congratulation! You have just finished Lesson 2.

In this lesson, you learned about the practices that address safety issues in ICT for teaching and learning and safety issues in cyberbullying. In the next lesson, you will learn about the ICT policies that are incorporated to the design and implementation of teaching-learning activities

Lesson 3

Uses of ICT Policies in the Teaching and Learning Environment

Learning Outcomes

At the end of the lesson, you should be able to:

- Identify ICT policies that are incorporated into the design and implementation of teaching -learning activities and have a deeper understanding of the uses of ICTs in facilitating the teaching and learning process
- Incorporate ICT policies in the design and implementation of teaching-learning activities

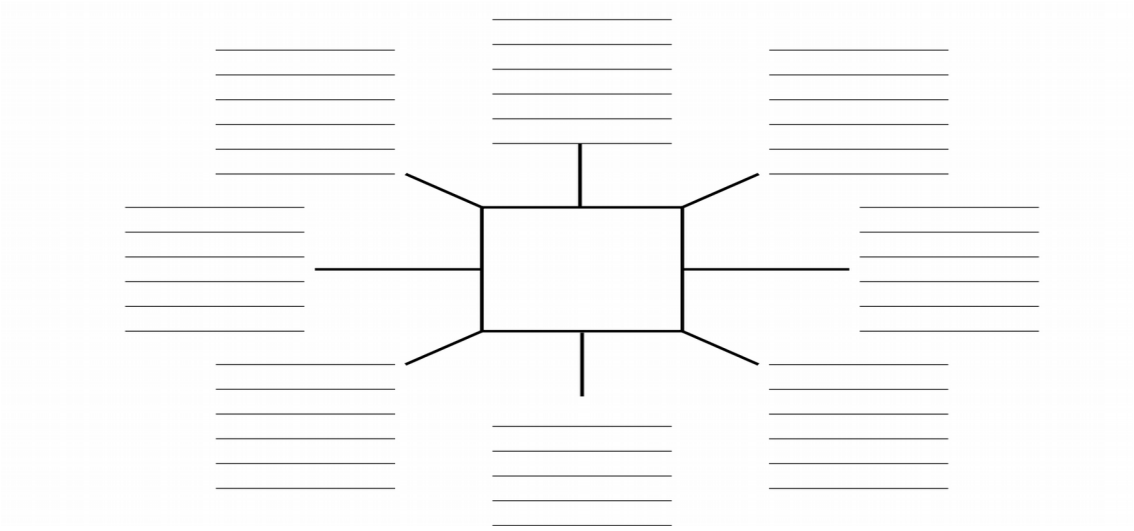
Time Frame 2 days

Introduction

This module will provide the student with a deeper understanding of the uses of ICTs in facilitating the teaching and learning process as well as the role that ICTs play in the larger educational and national context. Students will explore ways in which ICTs can be used for professional development, educational management, and school administration and publicity.

Activity

1. You will research other schools' ICT policies and best practices by surfing the World Wide Web and write down your discoveries using the graphic organizer.



2. You will do a class observation on how ICT practices are utilized in the classroom

Analysis

1. Where is the most research on the impact of ICT focusing on?

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2. What policies do reports on the use of ICT practices that impacts teaching and learning in the classroom?

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_____

Abstraction

Globally, researchers and policymakers acknowledge the importance of developing a school-based ICT policy plan to facilitate the integration of information and communication technology (ICT) in education. Despite this interest, little is known about how schools can improve their local ICT policy capacity and how to launch an ICT policy plan.

In many countries, the use of ICT in education and training has become a priority during the last decade. However, very few have achieved progress. Indeed, a small percentage of schools in some countries reached high levels of effective use of ICT to support and change the teaching and learning process in many subject areas. Others are still in the early phase of Information and Communication Technologies adoption. Those schools with sufficient ICT resources have better results achievements compared to those schools that are not well-equipped. Finally, teachers are more convinced that the educational achievements of pupils are anticipated to good ICT use. There is a high percentage of teachers in Europe (86%) say that students are more motivated when they used computers and the Internet in class.

A lot of resources have been invested by many governments across the world to ICT development to improve teaching and learning using technology in schools. New educational ICT policy issues emerged, and new patterns of ICT related practices are evident in education. To support traditional learning methods, many teachers use ICT to know how ICT can promote teaching and learning, as explained by Khattak, (2015). Furthermore, it has been proven that students have lots of benefits to new technologies.

Literature shows that ICT has a potential to enhance the teaching and learning process in many ways if it is well-utilized in learner-centered schools According to research conducted by Dzidonu, (2010), it shows that learning activities that are challenging, authentic, multisensorial and multi-disciplinary, students are motivated with higher attendance report, motivation and academic accomplishment as a result of ICT programs.

When there are potential and promise of ICT use in education, there are also 'perils' related to the distraction of existing traditional teaching and learning practices, such as the high costs, increased responsibilities on teachers, equity, and issues around data privacy and security. Four broad tangled issues must be addressed when considering the overall impact of the use of ICTs in education, effectiveness, cost, equity, and sustainability.

Policies related to technology use in change and evolve, often along a somewhat predictable path, and technological innovations often outpace the ability of policymakers to innovate on related policy issues. Such policies take different forms and are formulated and proposed by various institutions in different countries. No matter what country, a lack of rigorous, relevant evidence typically complicates attempts to draft impactful ICT/education policies. The educational effectiveness of ICTs depends on how they are

used and for what purpose. ICTs do not work in other educational tools or educational delivery for everyone, everywhere in the same way.

In developing countries, education takes place under situations that are substantially different from those in developed countries. The poorest countries spend the least proportionately on non-salary related educational expenditures. The Philippines is one of many developing nations that have turned to information and communication technology (ICT) as a tool to improve teaching and learning, whose educational system reveals many of the same problems and limitations of its fellow developing nations. Unfortunately, implementation endures from several weaknesses: the absence of documentation and information on how ICT is used; there is a lack of coordination between public and private sector efforts; and not sufficient teacher preparation. More specifically, there is uncertainty about whether computers in schools are fully utilized for educational computing. There were also concerns that computers meant for students were instead being used only by teachers for lesson plans preparation or playing games.

Educational researchers stated that lack of documentation regarding ICT use is a problem that exists in many countries. In developing countries, data that could help determine how scarce educational resources should be distributed or how effectively they are being used are simply not available. Finally, teacher preparation is not sufficient. Some training programs for teachers emphasize the use of specific software packages, but the integration of ICT in the curriculum is overlooked (Ng et. al, 2009). If teachers dare to use ICT without adequate training, they are likely to do it inaccurately.

Therefore, Philippine national policy has been formulated in the advanced use of ICT in education. The Senate Committee on Education, in cooperation with the DECS, launched Project CARES in March 2001. Project CARES was designed to upgrade the use and application of ICT in public elementary and secondary schools nationwide (Rimando, 2001). The primary concern of the project is the school administration to respond to the need for accurate and timely data that administrators and teachers need to manage their classes.

Philippines as a developing country are committed to instilling schools with ICT, hopeful that these technologies will improve teaching and learning in today's knowledge society. Subsequently, the government and the private sector have introduced programs to deliver schools with computer hardware and software, Internet connectivity, and teacher training. However, substantial gaps still exist in ICT program implementations. There is a lack of data on schools' use of ICT, so there is little basis for policy formulation; furthermore, there is a lack of coordination between public and private sector efforts. Within the ICT program, thus leads to wasted time, money, and human resources. Finally, there is a demand for further teacher training in both computer literacy and ICT integration in the curriculum. These gaps must be sufficiently addressed before ICT can have a significant impact on teaching and learning in Philippine schools (Rodrigo, 2001).

A. Policy Recommended Programs that have applications to education teaching-learning:

1. *ICT in Education Masterplan* for all levels, including a National Roadmap for Faculty Development in ICT in Education. A National Framework Plan for ICTs in Basic Education was developed.

2. *Content and application development through the Open Content in Education Initiative (OCEI),* which converts DepED materials into interactive multi-media content, develops applications used in schools and conducts students' and teacher's competitions to promote the development of education-related web content.

3. *PheDNET* is a "walled" garden the hosts educational learning and teaching materials and applications for use by Filipino students, their parents, and teachers. All public high schools will be part of this network with only DepEd-approved multi-media applications, materials, and mirrored internet sites accessible from school 's PCs.

4. *Established Community eLearning Centers called eSkwela* for out-of-school youth (OSY), providing them with ICT-enhanced alternative education opportunities.

5. *eQuality Program* for tertiary education through partnerships with state universities and colleges (SUCs) to improve the quality of IT education and the use of ICT in education in the country, particularly outside of Metro Manila.

6. *Digital Media Arts Program,* which builds digital media skills for the government using Open Source technologies. Particularly the beneficiary agencies organizations, the Cultural Center of the Philippines, National Commission and for Culture and Arts, State Universities, and local government units.

7. *ICT skills strategic plan,* which develops an inter-agency approach to identifying strategic and policy and program recommendations to address ICT skills demand-supply type.

B. Some Issues on ICT and Internet Policy and Regulations

Issue No. 1: Freedom of Expression and Censorship.

- The UN Universal Declaration of Human Rights provides that everyone has the right to freedom of thought, conscience, and religion, likewise the right to freedom of opinion and expression.
- Censorship restricts the transmission of information by blocking it or filtering information.

***I*ssue No. 2: Privacy and Security**

- Privacy means "personal privacy," the right of individuals not to have their home, private life, or personal life interfered with.

- Privacy of communication refers to the protection from interference with transmission over the phone or the internet.
- Information privacy must be used for purposes and will not be disclosed to others without the consent of the individuals.

Issue No. 3: Surveillance and Data Retention

- *Indirect Surveillance* – no direct contact between the agent and the surveillance subject and but evidence of activities can be traced.
- *Dataveillance* –the use of personal information to monitor a person's activities.
- *Data Retention* – the storage and use of information from communication systems.

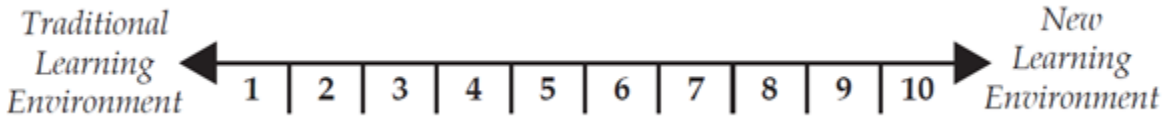
Issue No. 4: E-pollutants from E-waste

- A large amount of E-waste is generated by ICT.
- These are in particular, terminal equipment for computing, broadcasting, telephony, and peripherals.
- Material waste can be destroyed by crushing, toxic material brought by the different equipment requires top management.

Application

The availability and the use of the new ICTs also encourage new types of learning interactions: between teacher-learner, teacher-teacher, learner-experts, and between learners-computer.

In a continuum from traditional to the new environment, where would you position your school? Place an X mark where you think your school is.



In the space below, write a brief explanation for your answer.

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Closure

Now that you have already known the implications of ICT Policies and Safety Issues in Teaching and Learning, you can now proceed to the next module, which will discuss on Theories and Principles in the Use and Design of Technology-Driven Lessons.

Module Assessment

Encircle the correct answer,

1. When you ensure important information that will only be used for purposes and not be disclosed to others without the consent of the individuals, is an example of what safety issues of ICT?
   A. Privacy and Security
   B. Surveillance and Data Retention
   C. E-pollutants from E-waste
   D. Freedom of Expression and Censorship

2. Which form of surveillance that serves as storage and use of information from communication systems?
   A. Data Retention
   B. Indirect Surveillance
   C. Dataveillance
   D. Censorship

3. Which of the following is NOT considered as minor misuse of ICT?
   A. Downloading materials were not relevant to their studies.
   B. Leaving a mobile phone turned on during the class period.
   C. Theft and fraud form activities such as phishing.
   D. Unauthorized taking of pictures or images with a mobile phone camera, still or moving.

4. The following statements are the risks associated with the use of ICT and e-Networking, EXCEPT:
   A. Cyber-bullying in all forms, receiving sexually explicit images or messages.
   B. Prolonged exposure to on-line technologies, particularly at an early age.
   C. Emphasizes learning to understand and new technologies in a positive way.
   D. Addiction to gambling and gaming.

5. Which of the statement is the e-safety of using technology in the classroom?
   A. Downloading materials are not relevant to their studies.
   B. Helps safeguard children and young people in the digital world.
   C. Social pressure to maintain on-line networks via texting and social networking sites.

D. Prolonged exposure to on-line technologies, particularly at an early age.

6. What network management considered when you make clear that no one should log on as another user?
   A. Password Policy
   B. Safety in the Use of Network in Schools
   C. Personal mobile phones and mobile devices
   D. Using Cameras

7. These are, in particular, terminal equipment for computing, broadcasting, telephony, and peripherals.
   A. Privacy and Security
   B. Surveillance and Data Retention
   C. E-pollutants from E-waste
   D. Freedom of Expression and Censorship

8. What program for tertiary education through partnerships with state universities and colleges use to improve the quality of IT education and the use of ICT in education in the country, particularly outside of Metro Manila?
   A. PheDNET
   B. eSkwela for out-of-school youth (OSY)
   C. eQuality
   D. Digital Media Arts

9. What practices violate the provision in the use of the internet when it restricts the transmission of information by blocking it or filtering the information?
   A. Blocking
   B. Censorship
   C. Freedom of expression
   D. Surveillance

10. The following statements are the implications of the ICT policies and guidelines for teaching and learning, EXCEPT:
    A. Learners should not only know the benefits of technology use, but they should know how they can be protected by hazards that brings to their lives.
    B. It guides the teachers on what they should teach that relate to ICT.
    C. The learners of the 21st century are even more advanced than some of the teachers, so they don't need guidance on how to use technology.
    D. Technology should never replace any human teacher.

MODULE SUMMARY

Congratulations! You have completed Module 2. Essential points covered in the Module include:

- Overview of National policies related to ICT in Education Policy

- Enumerate the national ICT policies affecting classroom practices
- Impact of ICT in Education Policy to teaching and learning
- Discussion on how various ICT can be used in the curriculum and how this information improved the delivery of teaching-learning.
- Identification of ICT policies that are incorporated to the design and implementation of teaching-learning activities and have a deeper understanding of the uses of ICTs in facilitating the teaching and learning process
- Integrating ICT policies in the design and implementation of teaching-learning activities

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Module 3

Theories and Principles in the Use and Design of Technology-Driven Learning Lessons

Module Overview

"Learners in the internet age don't need more information. They need to know how to efficiently use the massive amount of information available at their fingertips – to determine what's credible, what's relevant, and when it's useful to reference."
- Anna Sabramowicz-

Lessons in this Module

- Dale's Cone of Experience
- TPACK Framework for Effective Pedagogical Practice
- The ASSURE Model

Welcome to your quest for exciting facts about Module 3!

The varied theories and principles in the use and design of technology-driven learning lessons is a critical factor in promoting innovation in the instructing, and the learning process relies particularly upon their convictions on how individuals adapt.

Specifically, they have to know who their students are and how to move toward instruction. As a future teacher, your job is to give learning encounters that will help accomplish the target outcomes. In this Module, you will be acquainted with various theories and learning standards, for example, Edgar Dale's Cone of Experience, the TPACK Framework, and the ASSURE model

After this module, you will be able to::

- Explain comprehensively Dale's Cone of Experience and present classroom practices that exemplify each level of the Cone.
- Presents an exemplar of different instructional tools that are suitable for an instructional setting.
- Understand and describe the Technological pedagogical content knowledge (TPACK)
- Select and employ appropriate technology tools in designing a lesson.
- Understand the concept of the ASSURE model in designing lessons with technology.
- Apply the ASSURE model in planning and creating a lesson.

Are you ready? Then start the lessons now!

Lesson 1

Dale's Cone of Experience

Learning Outcomes

At the end of the lesson, you should be able to:

- Explain comprehensively Dale's Cone of Experience and present classroom practices that exemplify each level of the Cone.
- Present exemplars of the different instructional tools suitable for an instructional setting.

Time Frame 3 days

Introduction

Next to the discussion on the ICT policies and safety issues in teaching and learning, you will now understand and examine Edgar Dale's Cone of Experience to get informed with various instructional media that form part of the system approach to instruction.

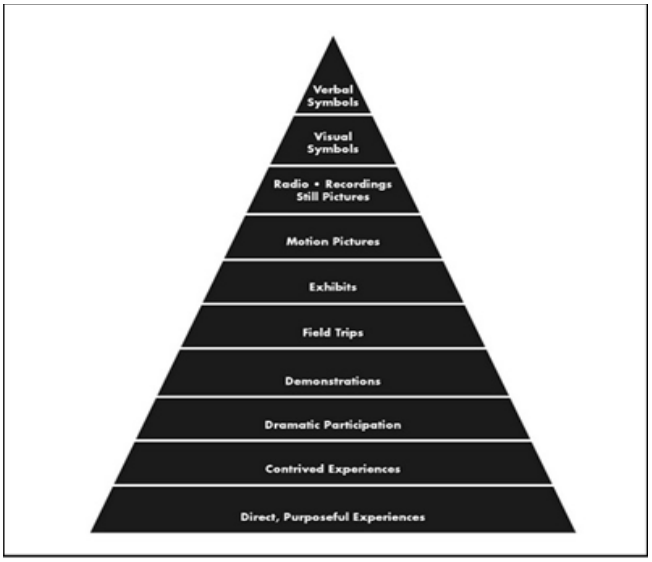
The model of Dale's Cone of Experience integrates several concepts associated with the instructional model and learning processes. He emphasized that learners retain more information by what they "do" as opposed to what is "heard," "read," or "observed." His studies caused the improvement of the Cone to revel. These days, this "learning by doing" has become known as "experiential learning" or "action learning."

As you immerse yourself in the lesson, you will discover the importance of the Cone as you plan your lesson to make learning more productive and engaging to students.

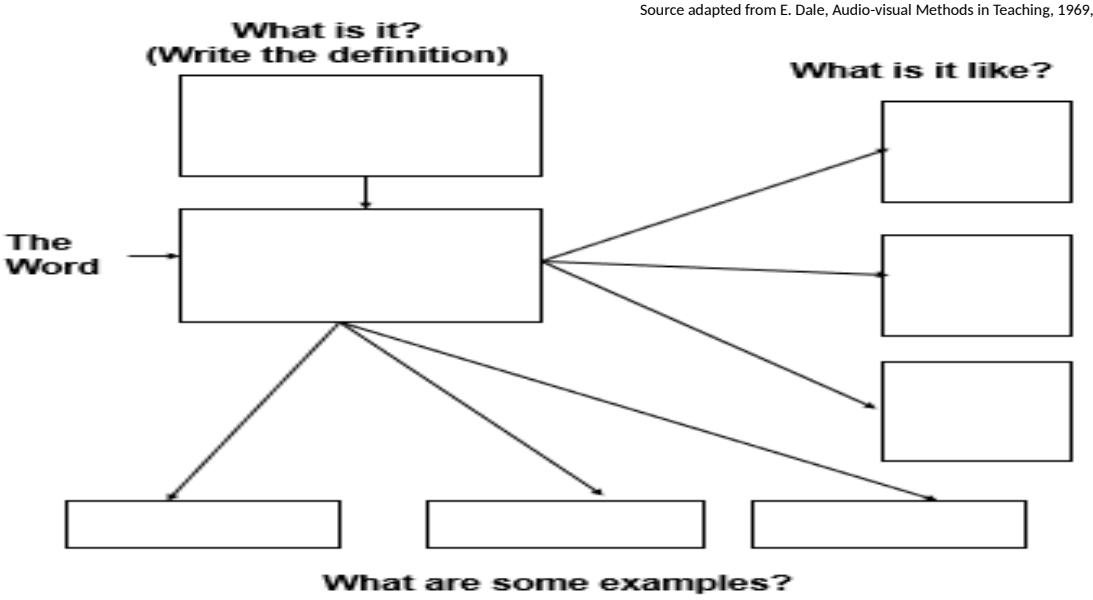
Activity

Activating Prior Knowledge

Study the Cone of Experience given below. Analyze how the elements are arranged from the bottom upward or top-down and put your ideas to the graphic organized below



Source adapted from E. Dale, Audio-visual Methods in Teaching, 1969, NY: Dryden Press.



Analysis

- How are the experiences of reality organized in the Cone of Experience?

_____
_____
_____
_____

- Which way is farthest away from the real world, in this sense, most abstract?

  _____
  _____
  _____
  _____

- Is the basis of the arrangement of experiences difficulty of experience or amount of abstraction (the amount of immediate sensory participation involved)?

  _____
  _____
  _____
  _____

- Does the Cone of Experience design mean that all teaching and learning must move systematically from base to pinnacle?

  _____
  _____
  _____
  _____

- Can you overemphasize the amount of direct experience that is required to learn a new concept?

  _____
  _____
  _____

- How can you, as a future teacher, can use the Cone of Experience to maximize learning?

  _____
  _____
  _____

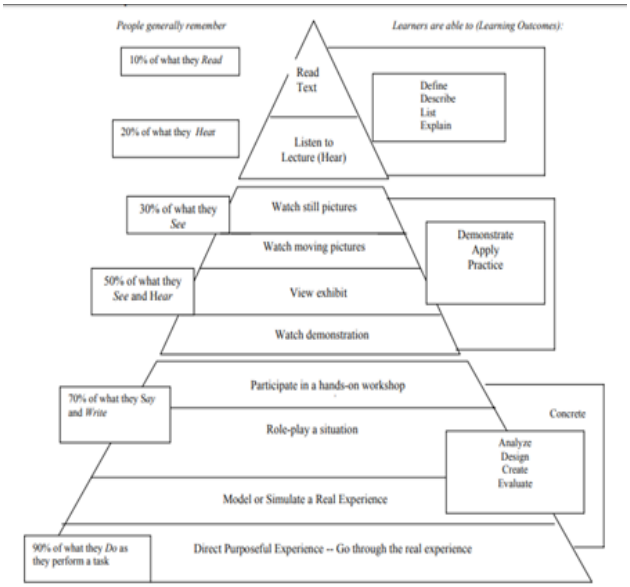
- Identify the bands of the Cone of learning that belong to passive and active learning categories

Passive	Active

Abstraction

Edgar Dale (1946) introduced Cone of Experience that reveals the development of experiences from the very real to the extremely abstract (at the top of the Cone). The Cone of Experience intends to notify students of how much a person's recall established on how they face the material.

The Cone charts the average retention rate of the knowledge for various teaching methods. The further down the Cone you move, the higher the learning, and the more knowledge is likely to be retained. It also indicates that it is important to note when selecting an instructional method that engaging students in the process can improve the retention of information. This shows that strategies of "action-learning" result in the retention of up to 90 percent. Individuals learn better by using visual types of learning. Perceptual types of learning are based on feelings. The more sensory channels are possible in interacting with a resource, the better chance that many students can learn from it (Diamond, 1989). According to Dale (1969), two teachers should develop lessons that draw on more real-life experiences. Dale's Cone of Experience is a device that helps teachers make resource and activity choices.



Edgar Dale's Cone of Experience gives the following interpretation:

1. Lower levels of the Cone involve the student as a participant and encourage active learning.
2. Pictures are remembered better than verbal propositions.
3. The upper levels of the Cone need more instructional support than lower levels.
4. Abstractness increases as we go up the Cone, and concreteness increases as we go down the Cone.
5. Higher levels compress information and provide data faster for those who can process it.

What are these bands of experience in Dale's Cone of Experience?

1. **Direct Purposeful Experience** - Some experiences have the least abstractness and the maximum possible concreteness. Purposeful means interactions of one intent are meaningful. Skills we gained in real life through our first-hand, direct involvement. In a teaching-learning cycle, it is the best mode, means, or channels for the desired

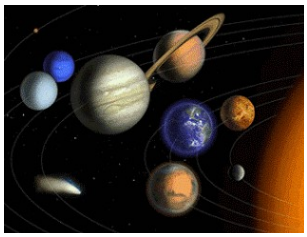
outcomes. Teachers will also strive to provide the students with real-life realistic experiences in the form of showing actual objects and enabling them to come into direct contact with the realities of life themselves. Examples allow students to prepare their meals, make a PowerPoint presentation, delivering a speech, performing experiments, or making their furniture.

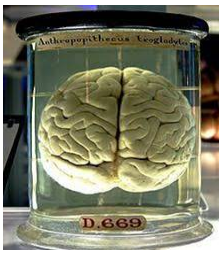
2. **Contrived Experiences** - These are not very rich, concrete, and direct as a real-life experience**.** When the real thing cannot be accurately observed, artificial stimuli can be given as a working model or as specific experiments in the laboratory. The working model is the editing of fact, which varies in size or complexity from the original. It includes models, mock-ups, experiments, and so on. We may delete the needless information in a condensed and edited version of the real thing, and make the learning simple. A mock-up of Apollo, the moon exploration spacecraft, for example, allowed the North American Aviation Co. to research the lunar flight problem.

Examples of Contrived Experiences:

Model- A replication in a small scale or a large scale or exact size of a real item- but made of synthetic materials. It is a substitute for a real item that may or may not be operational – Gray, et. In 1969, al.

Mockup- Is an arrangement of a real device or associated devices displayed in such a way that representation of reality is created. A unique model where the parts of a model are singled out, heightened and magnified to focus on that part or process under study. Example: Planetarium





Specimen- An individual animal, plant, piece of a mineral, etc. It is used as an example of its species or type for scientific study or display. An example is a product or piece of work, regarded as typical of its class or group—a sample for medical testing, especially of urine.

Object- May also include artifacts displayed in a museum or objective displayed in exhibits or preserved insect specimens in science.

Simulation- A representation of a real manageable event in which the learner is an active participant engage in learning behavior or in applying previously acquired skills or knowledge

3. **Dramatized Experiences** – The experience gained through active participation and role-playing in dramatic activities. Activities in which visual representation and role-playing depict the actual events of the past or present. It is useful in the teaching-learning of subjects like history, political science, language, and literature. The pupil who takes part in dramatization gets closer to direct experience than a student who watches it. The plays can be a variety of forms, such as full-length play, one-act play, puppet show, pageants (a kind of group drama focused on local history), mime, tableau, dialogs, spot-spontaneous acting, and mock conventions, etc. We revive the eruption of the revolution in the Philippines by playing the role of characters in a drama.

Plays - depict life, character, culture, or a combination of the three. They offer excellent opportunities to portray vividly essential ideas about life.

Pageants are usually community dramas that are based on local history. An example is a historical pageant that traces the growth of a school.

Pantomime is a "method of conveying a story by bodily gestures." Pantomime's impact on the audience rely on the actors' movements.

Tableau is a picture-like scene composed of people against a background. It is an arrangement of people who do not move or speak, especially on a stage, who represents a view of life, an event, etc.

Role-Playing is an unrehearsed, unprepared, and spontaneous dramatization of a situation where their roles absorb assigned participants. You pretend to be someone else or pretend to be in a particular position you are not really in at the moment.

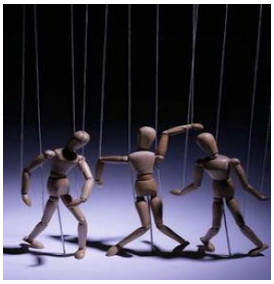
Puppets - A puppet is an inanimate object or representational figure animated or manipulated by an entertainer, who is called a puppeteer. Puppets can present ideas with extreme simplicity.

Types of Puppets

Shadow puppets – flat, black silhouette made from lightweight cardboard shown behind a screen.

Rod puppets – flat, cut-out figures tacked to a stick with one or more movable parts, and are operated below the stage through wires or rods.

Glove-and-finger puppets – make use of gloves in which small costumed figures are attached.



Marionettes – a flexible, jointed puppet operated by strings or wires attached to a crossbar and maneuvered from directly above the stage.

4. **Demonstrations** – It's a visual description of a significant reality, concept, or process. Students can watch how certain things are done either in the form of actual objects or models. Specific complicated procedures can be performed by the teacher for the benefit of pupils who are reduced to the position of passive listeners. For better performance, the teacher should try to involve the students in the

demonstration process by asking questions and answering them or by helping them plan the demonstration and execute it. For example, a teacher in Physical Education shows the class how to dance the tango.

5. **Study Trips** – It is a planned point visit or a location outside the daily classroom. This is an organized situation in the form of tours, flights, hikes, and excursions. Provide the students with valuable opportunities to offer direct real-life experiences. Learning several principles, gaining relevant information, knowledge, and skills (in combination with lots of entertainment) related to the school's various issues; curriculum. We put the classroom back into the community and the community's concerns back into the school.

    Sample title for your study trips

    Science Museum Trip - Science Field Trip
    Historical Reenactment Trip - Living History Field Trip
    Eco-Adventure Trip - Biology Field Trip
    Museum of Natural History Trip - Social Science Field Trip
    Reward Trip - Celebration/Fun Field Trip
    Aviation Museum Trip - Military History Field Trip
    Heritage Museum Trip- Culture Field Trip
    Historic Church Trip - Religious Field Trip

6. **Exhibits** – Bring the outside world into the classroom employing exhibits, the concrete representation of the things. The teacher can help the students by gaining useful experience through the observation and organization of educationally significant exhibitions. Exhibits are less real or direct in terms of providing direct practical experience. These may consist of meaningfully organized working models or photographs of templates, maps, and posters. Many exhibitions are "only for your eyes." However, several shows provide interactive opportunities in which visitors can touch or manipulate the displayed models.

7. **Television and motion pictures** – Television and movie clips can so expertly recreate the history of the past, that we have to feel like we're there.The special meaning of the messages that film and television deliver lies in their sense of reality, their focus on individuals and personality, their organization presenta¬tion, and their ability to select, dramatize, highlight, and clarify.

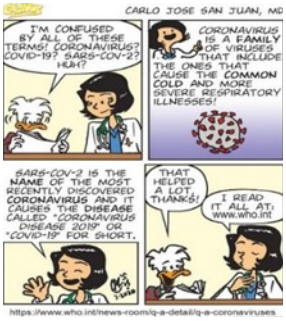
8. **Still, pictures, Recordings, Radio** - This stage includes the number of devices that might be classified roughly as one-dimensional aids because they use only one sense organ that is either eye (seeing) or ear (hearing). All these materials are less direct than audio-visual experiences.

9. **Visual symbols** - There are no longer practical reproductions of material objects, for such representations are incredibly abstract. Visible concepts that describe something intangible by association and something that reflects or stands for something else, usually by association or by way of definition of something abstract. Visual perception has a predictive framework that is interesting. This contains visual

graphic resources such as charts, maps, diagrams, sketches, posters, comics, photos, drawings on blackboards, and illustrations. The visual symbols (free to use any language) form a primary contact language.

Drawings - A drawing might not be a real thing but better than nothing to have practical visual help. To prevent ambiguity, it is important that the real thing is depicted correctly by our drawing.

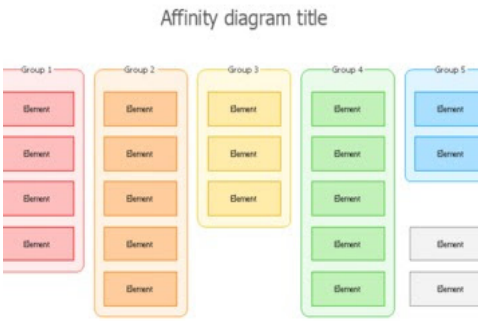
Cartoons The cartoon is another useful visual symbol which can add innovation to our teaching. Metaphorically a first-rate cartoon reveals its story.



Strip drawings - A series of sketches linked to a funny story or an adventure in a newspaper, magazine, etc .. It is a series of adjacent, typically horizontally organized images which are intended to be read as a narrative or a sequential sequence.

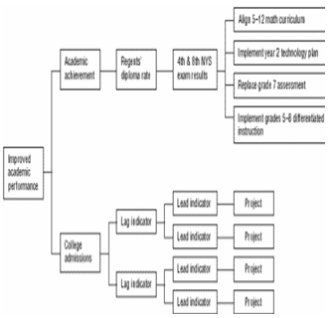
Diagrams - It is any line drawing that shows arrangement and relations as of parts to the whole, relative values, origins and development, chronological fluctuations, distributions, etc. (Dale, 1969)

Types of Diagrams

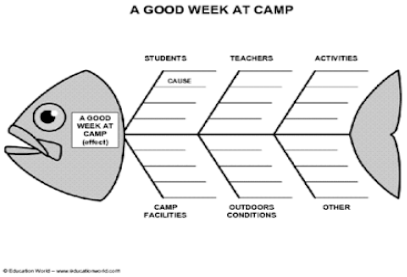


Affinity Diagram - used to cluster complex apparently unrelated data into natural and meaningful groups. An affinity diagram is to arrange ideas into a specific or natural relationship. Bananas, bananas, and oranges, for example, would be grouped as fruits while green beans, broccoli, and carrots would be grouped as vegetables.

Tree Diagram – A tree diagram is a modern method for planning management that defines the hierarchy of tasks and subtasks required to complete and be objective. The tree diagram begins with one element, then branches out



to two or more, each branching into two or more, and so on. The finished diagram is like a tree, with a trunk and many branches.



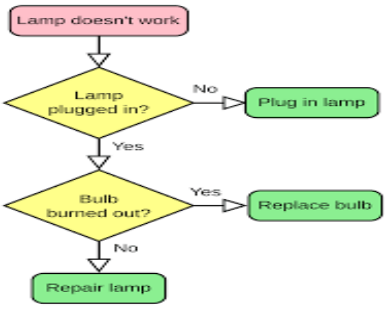
Fishbone Diagram - Often referred to as the cause and effect diagram or Ishikawa diagram is a visualization method for categorizing the possible causes of the root cause of the issue. A fishbone diagram usually used for root cause analysis incorporates the brainstorming technique with a form of mind map design.

Charts - It is a diagrammatic representation of individual connections within an organization.

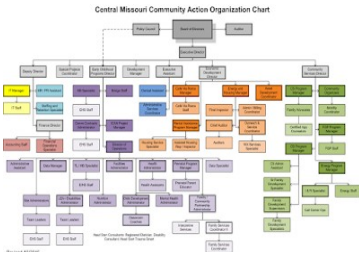
Types of Charts

Time Chart a tabular time diagram displaying data in ordinal series.

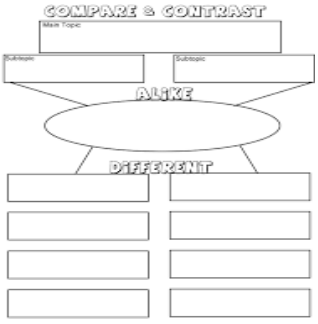
Tree or Stream Chart shows creation, growth and change starting with a simple course spreading out over several branches



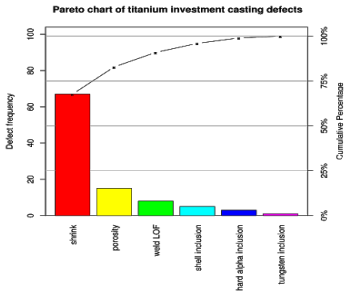
Flowchart visual way of showing a process from beginning to end. A diagram of the series of individual gestures or acts or events involved in a complex structure or operation.



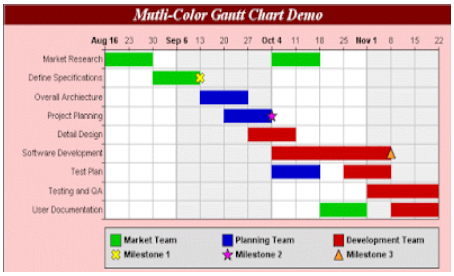
Organizational Chart Shows how one part of the company applies to other sections. It is a graphical representation of the structure which shows the relationships within the positions or jobs.



Comparison and Contrast Chart shows similarities and differences.

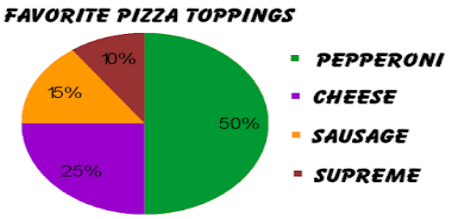


Pareto chart Is a type of bar chart, prioritized from left to right in decreasing order of magnitude or importance



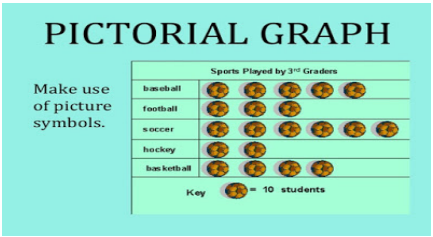
Gannt chart is an activity time chart. A diagram displaying a sequence of horizontal lines representing the amount of work completed or produced during different periods to the amount expected for those periods

Graphs - Pictures helping us to understand the details. A diagram showing the relationship between the variable quantities, usually two variables, each calculated at the right angles along with one of a pair of axes.



Circle Graph –A visual representation of data made by dividing a circle into sectors that each represent parts of a whole. Usually, the amounts in each area are expressed in percent, so that all of the amounts total of 100%.

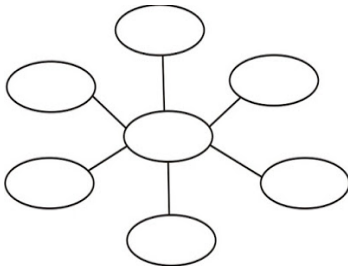
Bar Graph – Using to compare the magnitude of the same things at different relations or to see the relative sizes of the entire pieces. Also, the numerical values of variables are represented by the height or length of lines or rectangles of equal width.

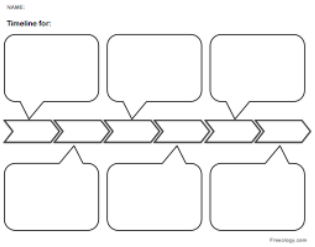


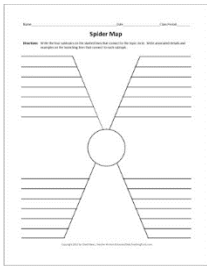
Pictorial Graph – a visual representation of data by using pictograms. It uses icons or pictures in relative sizes to highlight some data patterns and trends.

Graphic organizers – In your subject, you've encountered many graphic leaders, teaching values. Also known as knowledge map, idea map, story map, cognitive

organizer, advance organizer, or idea diagram, this is a pedagogical method that uses visual symbols to communicate knowledge and concepts through interactions between them.







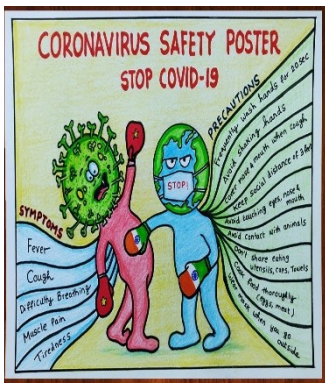
Maps - Is a reflection of the earth's surface or a part thereof.

Physical Map Is altitude, temperature, precipitation, rainfall, vegetation, and soil. A diagram of known iconic places on chromosomes. In base pairs, the actual distance is determined between landmarks.

Relief Map is a three dimensional represents and shows contours of the physical data of the earth or part of the earth. It is indicating hills and valleys by shading rather than by contour lines alone, also elevations and depressions representing hills and valleys, typically on an exaggerated relative scale.

Political maps are reference maps commonly used. They 're put worldwide on the walls of classrooms. They display the geographical boundaries between units of government, such as nations, states, and counties. We show highways, cities, and significant water features like oceans, rivers, and lakes.

Poster - A large printed picture, photograph, or notice that you stick or pin to a wall or board, usually for decoration or to advertise something.



10. **Verbal symbols** - They are not like the artifacts or concepts they stand for. They do not generally contain visual references to their meaning. To express any meaning, verbal representations are words, phrases, sounds, or other utterances that are spoken aloud. The verbal symbol may be a phrase, an idea, a concept, a scientific theory, a formula, a philosophical aphorism, or some other representation of the experience listed in any verbal symbolization. Published terms fall into that range. It may be a word for a concrete-object (book), an idea (freedom of speech), a scientific principle (the principle of balance), a formula (e=mc2)

Dale's Cone of Experience as a tool to help my students build learning experiences.

Percentage	Modality	Sample Activities
10/% of what my students read	Read	Textbook (e-book) & articles
20% of what my students hear	Hear	Teacher lecture/group discussions
30% of what my students see	View images/watch videos	Content specific & research videos/concept infographics
50% of what my students hear & see	Attend exhibit/sites/watch demonstration	School site visitations/classroom observations
70% of what they say and write	Hands-on workshop/design collaborative lessons	Develop a lesson plan with a cooperating classroom teacher/design and present a group presentation
90% of what my students do	Simulate or model a real experience/design or perform a presentation	Conduct a demonstration literacy or numeracy lesson in a PreK – 3 classroom

The Cone of Experience corresponds with three significant modes of learning:

- **Enactive (direct experience)**,- Enactive or direct contact includes working with objects (the student joins a knot to practice knot tying). The enactive perception requires direct action and effective use of the senses and the body.
- **Iconic (pictorial experience)** - Iconic learning includes reading photos and sketches (the student looks at paintings, pictures, or movies to learn how to tie knots). Iconic perception is separated from the world of science and limited to two or three senses.

- **Symbolic (highly abstract experience)-** Symbolic experience involves reading or hearing symbols (the student learns or hears the word "knot" and forms an image in mind). In symbolic experience, the action is removed nearly altogether, and the experience is limited to thoughts and ideas.

Application

A. Based on the concepts presented above, design a lesson that will employ activities that can be found on the bottom parts of the Cone of Experience, particularly proving a direct, purposeful experience.

B. Reflect on the following questions.

1. Think about your most unforgettable learning experience. How was it (or how was it not) a "rich experience" as defined by Dale?

   _____
   _____
   _____

2. Dale thought a rich experience would be "emotionally satisfying" and "motivate [learners] to read throughout their lives." Describe an experience you've had that has been emotionally satisfying and inspired you to continue learning throughout your life.

   _____
   _____
   _____

3. Why does Dale recommend that teachers maximize their time by giving practical and abstract opportunities to teach?

   _____
   _____
   _____

4. How does this instructional tool increase Textbook information?

   _____
   _____
   _____

Closure

You did it! Now that you've already learned Cone of Experience's consequences for teaching and learning, you can now move on to the next lesson, TPACK Framework for Effective Pedagogical Practice.

Lesson 2

TPACK Framework for Effective Pedagogical Practice

Learning Outcomes

At the end of the lesson, you are expected to:

- Understand and describe the Technological pedagogical content knowledge (TPACK) framework needed by a teacher for effective pedagogical practice in a technology-enhanced learning environment.
- Select and employ appropriate technology tools in designing a lesson.

Time Frame 3days

Introduction

As you put together to be a teacher, how do you validate your content knowledge with your specialization? In terms of your teaching competencies, what strategies techniques do you understand will work if you use it when teaching? You will keep in mind the use of the technological device when teaching, what would be?

Teaching subjects or courses are challenging. However, technology has the potential to help. To increase the chance of technology assisting students in learning, teachers must develop technological, pedagogical, and content knowledge (TPACK).

TPACK emerges, which forces you to look at the process of using technology in the classroom clearly and concisely. By looking at each aspect of this framework as a separate but equally important type of knowledge, you can make the right educational decisions on how, when, and what kind of technology to use in instruction. Teachers as curriculum designers can integrate their knowledge of student thinking and learning, the subject matter, and technology to create useful lessons.

In the lesson, you will begin to explore the TPACK model or framework.

Activity

Read and carefully understand the sample lesson plan created based on Harris and Hofer's (2009) procedure followed by its TPACK element description and answer the questions in the analysis below.

LESSON PLAN
Unit Title: Cardinal and Ordinal Numbers **Subject**: English

Grade Level: 4th grade
Time Allocation: One class meeting (70 minutes)

Competency Standards:

3. Understanding very simple written English in classroom contexts.
4. Spelling and rewriting very simple written English in classroom contexts.

Basic Competences:

3.2 Understanding very simple sentences and written messages.
4.2 Rewriting very simple, written English correctly and appropriately.

Indicators:

1. Pointing the difference between cardinal and ordinal numbers.
2. Mentioning cardinal and ordinal numbers from one to one hundred.
3. Using cardinal and ordinal numbers in simple sentences.

Learning Objectives:

1. Students can mention the difference between cardinal and ordinal numbers after discussing with their peers.
2. Students can mention at least ten cardinal and ordinal numbers ranging from one to one hundred independently.
3. Students can produce at least five sentences containing five different cardinal or ordinal numbers independently.

Learning Material:

Cardinal and Ordinal Numbers

Learning Strategies:

Group discussion, pair work, individual assignment.

Learning Activities:

(Note: Before the lesson, the teacher may have asked the students to do little research about numbers around them. They may do it while at home or school.)

1. The teacher asks the students to sit in groups and discuss what they have found during their research about numbers.
2. The teacher asks representatives of the groups to tell the class about what the groups think about their findings during their research about numbers.
3. The teacher guides the students to compare the forms of the numbers they found and find the difference between them.
4. The teacher introduces the terms cardinal and ordinal numbers and explains as well as gives examples of how to write and use them in simple sentences.
5. Students are assigned in pairs and take turns to play cardinal and ordinal numbers drag and drop game and word matching game (Note: depends on the availability of the personal computers as well as the Internet connection, the teacher can assign different pairs to different PCs and play the games as teams). The teacher will walk around to observe and assist any team having difficulty with the games.
6. Students tell the class and the teacher about their results on playing the games, whether there is any difficulty concerning the questions or items of the games or not, and the teacher will give feedback and comments about them.
7. The teacher distributes a BINGO worksheet to the students and guides them to play the

BINGO game classically.

8. The teacher reviews what the students have learned through the BINGO game and helps them wrap-up their learning experience by asking them to take turns to do an online quiz about cardinal and ordinal numbers individually.
9. While doing so, the teacher assigns the students who have not yet got the turn to do the online quiz to write down five simple sentences containing both cardinal and ordinal numbers and submit them to the teacher as soon as they finish.

Resources and Tools:

1. Cardinal and Ordinal Numbers Word Matching Game, available at www.manythings.org/wbg/numbers-mw.html
2. Cardinal and Ordinal Numbers Drag and Drop Game, available at www.manythings.org/wbg/numbers-jw.html
3. Cardinal and Ordinal Numbers BINGO Game Sheet, available for direct printing at www.eslhq.com/worksheets/preview_worksheet.php?worksheet_id=131265
4. Cardinal and Ordinal Numbers Quiz, assessable at www.usingenglish.com/quizzes/240.html

Assessment:

The teacher can use the online quiz as well as the five-sentences writing assignment as the tools for assessing students' progress and understanding about cardinal and ordinal numbers.

Source: Setyawan, T. Y. (2014). Designing the TPACK Lesson Plan for Primary English Classrooms

Analysis

- Describe the Content Knowledge (CK), Pedagogy Knowledge (PK), Technology Knowledge that the teacher used in designing the lesson?

_____
_____
_____
_____
_____
_____

- How is the Pedagogical Content Knowledge (PCK) element of the lesson articulated?

_____
_____
_____
_____
_____

- How is the Technological Content Knowledge (TCK) component of the lesson formulated?

_____
_____

- Based on the plan, how is the teacher demonstrates Technological Pedagogical Knowledge (TPK)?

- Overall, describe the Technological Pedagogical Content Knowledge that the teacher possesses?

- How and why this particular combination of technology, pedagogy, the content most appropriate for this lesson/unit?

Abstraction

What is TPACK?

TPACK is a Useful framework for researchers working to explain the convergence of learning and teaching technologies. Based on Shulman's (1986) concept of PCK, Mishra, and Koehler (2006) included technology to PCK and described the resulting TPCK as the interlocking of technology, pedagogy, and content. TPACK is a system tailored to the dynamic interactions of teacher knowledge of content (CK), pedagogy (PK), and technology (TK). Integrating technology and pedagogy into a given topic may require complex intersections such as TPK (technological pedagogical knowledge), PCK (pedagogical content knowledge), and TCK (technological content knowledge). Doering et al. (2009) emphasized the dynamic nature of TPACK, an evolving and multifaceted (rather than static) representation of teacher knowledge, as new technologies emerge for integration into particular content areas.

At the heart of excellent teaching with technology are three essential factors: content, pedagogy, and technology, plus the relationships among and between them. The

dynamics between and among the three elements played out differently in various contexts account for the substantial differences seen in the size and nature of the incorporation of educational technology. These three knowledge roots (content, pedagogy, and technology) form the core of the technology, pedagogy, and content knowledge (TPACK) framework (Koehler & 2008; Mishra & Koehler, 2006).

The TPACK framework was proposed to emphasize the need to situate technology knowledge within the content and pedagogical knowledge. TPACK considers teachers' expertise As dynamic and multifaceted, critical techno-centric approaches focusing on the achievement of technical competences separate from pedagogy and content. Seven components (see Figure 1) are comprised of the TPACK Framework. They are described as:

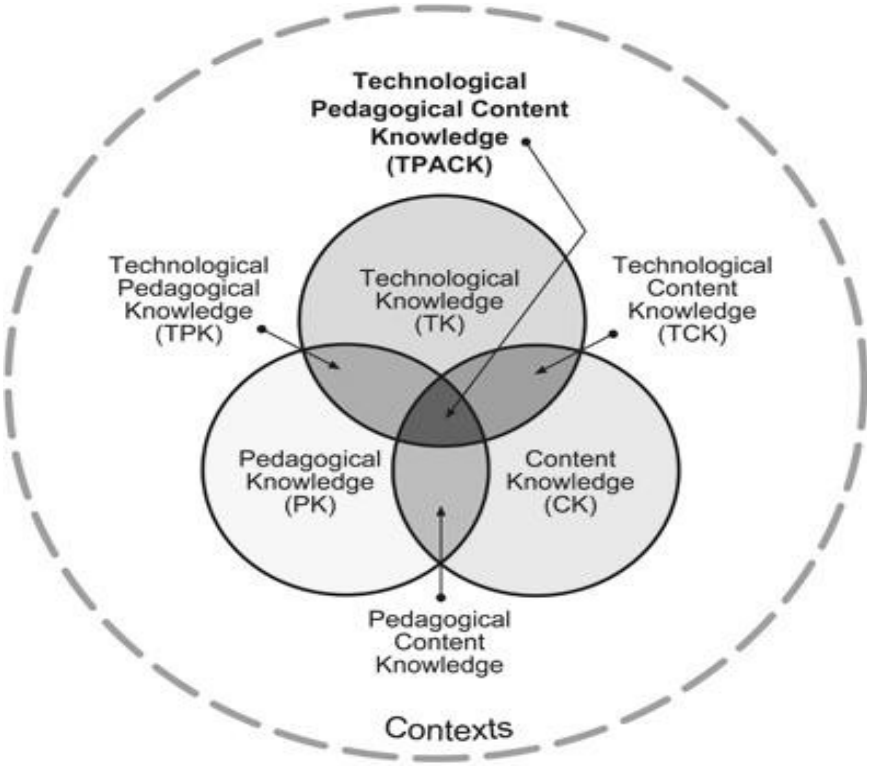


Figure 1. Technological Pedagogical Content Knowledge (Koehler & Mishra, 2009; adapted from Koehler & Mishra, 2008)

1. **Technology knowledge (TK)**: Knowledge of various technologies. They range from low-tech technology like pencil and paper to emerging technologies like the internet, digital media, interactive whiteboards, and software programs. TK is about recognizing educational technology, evaluating its possibilities for a particular subject area or classroom, learning how to identify whether it can assist or hinder learning, and continually learning and adjusting to emerging technology offerings.
2. **Content knowledge (CK)**: Awareness of the actual subject matter that teachers need to learn about teaching. This explains the appreciation teachers have of the subject matter. CK may include knowledge of principles, hypotheses, facts, and

organizational structures within a given subject matter; it may also include the best practices of the field and existing methods for presenting this information to students. The CK will also differ according to the level of discipline and grade. Senior high school science and history classes, for example, require less detail and scope than undergraduate or graduate courses, so the CK of their different teachers will differ, or the CK that each teacher imparts to their students can differ.

3. **Pedagogical knowledge (PK)**: Awareness of teaching strategies and processes such as classroom management, assessment, creation of the lesson plan, and learning of the students. As a general type of information, PK covers educational objectives, principles, and goals and can extend to more specific fields, including recognizing student learning styles, lesson planning, and assessments.
4. **Pedagogical content knowledge (PCK)**: This defines the awareness of teachers about the essential areas of teaching and learning, including the creation of curricula, student evaluation, and reporting performance. PCK focuses on encouraging learning and exploring the ties between pedagogy and its supporting activities (curriculum, assessment, etc.), and similar to CK, may also differ depending on the grade level and subject matter. However, in all situations, PCK seeks to improve teaching practices by building more consistent linkages between the material and the pedagogy used to communicate it.
5. **Technological content knowledge (TCK)**: Knowledge of how technology can create new representations for specific content. TCK requires an awareness of how the subject can be conveyed through different educational technology offerings and considering which specific educational technology tools might be best suited for particular subject matters or classrooms.
6. **Technological pedagogical knowledge (TPK)**: Knowledge of various technologies that can be used in teaching and learning experiences. Another dimension of TPK relates to understanding how to apply these resources alongside pedagogy in ways relevant to the discipline and the creation of the lesson at hand.
7. **Technological pedagogical content knowledge (TPACK)**: Focus on the knowledge required by teachers for integrating technology into their teaching in any content area. Teachers, who have TPACK, act with an intuitive understanding of the complex interplay between the three essential components of knowledge (CK, PK, and TK). TPACK is the culmination of these complex combinations and desires, drawing from them – and from the three wider underlying fields of content, pedagogy, and technology – to create a useful framework for teaching using educational technologies. For teachers to use the TPACK system effectively, they should be open to unique, critical ideas, including:
    - Concepts of the taught material can be expressed using technology;
    - Pedagogical techniques can use technology to communicate content in various ways;
    - Different subject definitions allow students to have specific ability levels and educational technology may help address some of these requirements;

- Students have various experiences in the classroom – like previous educational experience and technology exposure – and lessons using educational technology should take this opportunity into account;
- Educational technology may be used in combination with established awareness of the students, either by improving previous epistemologies or by introducing new ones.

This incentive is most apparent if teachers are unexpectedly forced to address fundamental educational issues and restore the complex equilibrium between all three elements using new educational technology. This view inverts the traditional view that pedagogical priorities and innovations are derived from the curricula in the subject field. Things are rarely that simple, mainly when newer technologies are employed.

Teaching with technology is a hard thing to do right. The TPACK paradigm suggests that contextual such as content, pedagogy, technology, and teaching/learning have roles to play both individually and together. Excellent teaching with technology involves continuous development, maintenance, and restoration of a dynamic equilibrium between all components. It's means noting that there are a variety of variables that affect how this balance is achieved.

Application

1. You are now ready to design your TPACK lesson plans using and applying the knowledge baseline you learned to the topic.

2. Reflect on the following questions:

According to Mishra & Koehler (2006), "the simple incorporation of technology into the educational process is not enough." Many approaches to the professional development of teachers provide a one-size-fits-all approach to technology integration when, in reality, teachers work as a potential teacher in a variety of teaching and learning contexts – facing these challenges.

How can teachers incorporate technology into their instruction?

_____
_____
_____
_____

What other matters or concerns should teachers look into and consider concerning the use and integration of instructional media and technology?

_____
_____
_____
_____

Closure

Well done! You have just finished Lesson 2 of this Module. Should there be some parts of the lesson which you need clarification, ask your teacher during your face-to-face interactions or other means of communication.

Now, if you are ready, please proceed to Lesson 3 of this Module, which will discuss the ASSURE model.

Lesson 3

The ASSURE Model

Learning Outcomes

At the end of the lesson you are expected to:

- Understand the concept of the Assure model in designing lessons with technology.
- Apply the ASSURE model in planning and creating a lesson.

Time Frame 3 Days

Introduction

This section will discuss one instructional design model that can be used in planning instruction for teaching. The ASSURE instructional design (ID) model uses a six-step process to effectively integrate the use of technology and media into lessons to improve student learning. For successful instruction to occur, cautious arranging is required. As a future teacher, this model is intended to help you viably coordinate media/innovation into your lesson or instructions - to help "guarantee" learning.

Activity

Examines the teachers' use of the ASSURE model to create technology-integrated lessons and implement these lessons with their students in a variety of settings. Answer the questions in the analysis section below.

ASSURE Model Lesson Plan

Lesson Title: Macbeth Introduction
Grade Level: Grade 11
Lesson Length: 90-minute block

I. Analyze Learners

Learners' general characteristics: The lesson is designed for 11th-grade high school students. This is an in-class support class comprised of 7 male and 11 female students, of which six (6) students have Individualized Education Program (IEP) accommodations. Academic ability and learning styles vary. In general, students become easily distracted and lose focus quickly. The students are familiar with the work of William Shakespeare and are capable of identifying the various literary devices found in work.

Entry characteristics: The students in this class are skilled in the use of computers and tablets. However, their proficiency in this technology is limited to the use of social media and entertainment applications.

Learning styles: Although the class is comprised of students of all learning styles, the majority of students in this class are tactile learners.

II. State Standards and Objectives

This lesson is designed to meet the Common Core Standards for Language Arts. The standards covered in this lesson plan include:

Objective 1: The students will be able to determine the atmosphere created in Act I, scene i of the play and discuss how language and choice setting is responsible for that atmosphere.

Curriculum Standard

Analyze the impact of the author's choices regarding how to develop and relate elements of a story or drama (e.g., where a story is set, how the action is ordered, how the characters are introduced and developed)

Objective 2: The students will be able to rewrite Act I, Scene i of Macbeth, using modern terminology.

Curriculum Standard

Determine the meaning of words and phrases as they are used in the text, including figurative and connotative meanings; analyze the impact of specific word choices on meaning and tone, including words with multiple meanings or language that is particularly fresh, engaging, or beautiful.

Objective 3: Students will be able to understand the significance of Act I, scene i of Macbeth

Curriculum Standard

Analyze how an author's choices concerning how to structure specific parts of a text (e.g., the choice of where to begin or end a story, the choice to provide a comedic or tragic resolution) contribute to its overall structure and meaning as well as its aesthetic impact.

Objective 4: Students will experience varying interpretations of Act I, scene i of Macbeth and

produce their interpretation

Curriculum Standard

Analyze multiple interpretations of a story, drama, or poem (e.g., recorded or live production of a play or recorded novel or poetry), evaluating how each version interprets the source text. (Include at least one play by Shakespeare and one play by an American dramatist.)

III. Select Strategies, Methods, Media, and Materials

Strategies. A variety of teacher-centered and student-centered approaches have been designed for this lesson.

Technology and Materials. Students will have access to computers, printers, microphones, headphones, word processing software, video, and audio editing software, and the Internet.

Media. Students will use print, audio, texts, visuals such as photos, and clip art or drawings to create assignments.

IV. Utilize Technology, Media, and Materials

Prepare the materials: With the assistance of the instructional technology coordinator, Classroom computers and chrome books will be checked and ready for student's use. Appropriate software will be accessible to the students**.**

Prepare the environment: Desks are to be arranged in a manner that allows for small group work. Additionally, a computer station must be accessible to all students to complete various aspects of the assignment.

Prepare the learners: Students will have been prepared for this lesson during the lesson

Prior. Students have notes on Shakespeare and literary devices, which can be referred to as needed.

V. Require Learner Participation

Student participation in this lesson will include both large and small group activities. The lesson is structured to begin with, with large group instruction and activities to prepare for the smaller group activities.

Large group activities: The lesson will begin with students assuming roles and reading Act I, scene i of Macbeth. A brief discussion will focus on what the students think is happening in the scene. Student reading will be followed by students listening to a recording of the scene. Using the Promethean Board, students will begin to develop a comparison chart of what they read and what they heard. This will be followed by viewing the performance of the scene via YouTube. Students will add to the chart upon completion of the viewing.

Small group activities: The students will break into groups of three or four to rewrite the scene they have just watched. They will use computers to access the internet for research and assistance. Once rewritten, students will use PowerPoint presentation software to present their version of Act I, scene i to the class.

VI. Evaluate and Revise

Student activities will be evaluated using the rubric (you can attach your rubric)

Analysis

- What do you understand about the ASSURE model?

_____
_____
_____

- How does the teacher use the ASSURE model to integrate technology into the instruction?

_____
_____
_____
_____

- What do you think the impact on student learning resulted from the ASSURE-based instructional lessons?

_____
_____
_____
_____

- What are your perceptions of implementing the instruction and of student learning with technology?

_____
_____
_____
_____
_____

Abstraction

What is ASSURE Model?

The ASSURE model is an instructional framework or rule that instructors can use to create lesson plans which coordinate the utilization of innovation of technology and media (Smaldino, Lowther and Russell, 2008). The ASSURE Model emphasizes the student and the general result of achieving learning targets. The ASSURE model is an enhanced advancement of the ADDIE general model. Although the ASSURE model has six stages, which don't relate to ADDIE's five, ASSURE additionally presents configuration stages, and offers with it the two principle includes: the underlying spotlight on examination and the cyclic structure.

The exceptional component of this model is that it is centered around "arranging and directing Instruction that fuses media" (Heinich, Molenda and Russel, 1993). Its principal point of view is on the best way to incorporate media (any sort of media) into guidance in a technique equipped for delivering the ideal learning results. Created by Robert Heinich and Michael Molenda decades prior, the ASSURE model picked up ubiquity due to its utilization in a well-known course reading for instructors.

It is a notable instructional structure control that utilizes the constructivist point of view, which integrates multimedia and technology to upgrade the learning condition (Lefebvre 2006). The ASSURE model was altered to be used by educators in the study hall by Smaldino, Lowther, and Russell, 2008. The teacher leans toward the ASSURE model since it is intended to be utilized for a couple of long stretches of instruction and every individual understudy. This model doesn't require high multifaceted nature of conveyed media, profound ID information, or high correction of plans (Gustafson and Branch, 2002). The ASSURE model gives the new or beginner teacher a general guide to follow to assist them with deduction increasingly like experienced teachers.

This model was developed by Heinrich and Molenda in 1999 and is based closely on the Instruction Events of Robert Gagne. Furthermore, Smaldino, Lowther & Russell, 2008, adapted the ASSURE model to be used by teachers in the classroom. Understanding when to use teaching techniques and immersive technology is key to being successful academically in the future.

Six Steps of ASSURE Model

The ASSURE Model has six steps, each represented by a letter in the acronym title, with each step describing a set of tasks central to the informed selection and use of educational technology. The ASSURE acronym stands for these essential components:

Analyze Learners - The first step in the process is to make the instructor evaluate her learners' attributes. Those learner characteristics that are correlated with the optimal learning outcomes should be given a priority. The collected information will help you with the decisions you make on the other steps in the process. When you assess the learners' character, this will help you in choosing different techniques and tools to assist the learning process. Your learner analyzes will include:

- General attributes of learners (e.g., age, academic abilities, gender, interests, etc.
- Prior competencies
- Learning styles, such as auditory, visual, and tactile

State Objectives - The next step in planning is to state the objectives of the lesson or presentation accurately. Targets must be specified in terms of what the learner (not the instructor or presenter) would do as a result of the training (in behavioral conditions).

Your lesson will have two or three clear targets. Usually, goals include four (4) essential parts:

- A statement that describes the intended **Audience**. For example, “The first-grade student will . . .” or “The student will . . . “
- A description of the student’s anticipated **Behavior** resulting from your teaching. This conduct must be detected to be assessable. For example, it is beneficial to use action verbs such as add, alphabetize, organize, construct, pick, classify, contrast, define, describe, diagram, identify, kick, mark, locate, create, multiply, name, produce, pronounce, choose, sketch, sort, determine, say, throw, emphasize, verbalize and compose. Ignore such terms as learning, appreciating, grasping, or understanding.
- A description of the **Condition** to be observed for results. What tools does it require the student to use (e.g., a map, a dictionary)? Which tools or equipment does it need the student to use? Will the student be permitted to use notes or a summary when composing an article?
- A declaration of the learner’s **Degree** of accuracy or ability must be demonstrated to pass forward. The conditions should be based on the real-world and not specified on the multiple-choice test. Time and efficiency are also crucial to other purposes. Will an English student in 11th grade be able to write a theme in 5 paragraphs within 50 minutes? If a third-grade student can solve at least seven of ten single-digit multiplication problems, can the instructor believe he or she has mastered the concept?

Select Media and Materials - In this step, you have set the starting point (the student’s current information, aptitudes, and perspectives) and the consummation point (objectives) of your instruction. Presently your activity is the fabricate an instructional scaffold that will associate the two focuses. You may choose accessible materials, change existing materials, or structure new materials to help achieve the task. You may select a few distinct kinds of media to use with the unit. Any of the media/innovations examined in the content will be fitting.

Utilize Media and Materials - Here you should choose how the students will utilize the materials. Next, set up the room and be sure the essential hardware and offices are accessible and prepared for your utilization before you use the exercise. It’s vital to follow the “five p’s” process to achieve this:

- Preview the Technology, Media, and Materials
- Prepare the Technology, Media, and Materials
- Prepare the Environment
- Prepare the Learners
- Provide the Learning Experience

Require Learner Performance - This step expects you to depict how you will get every student effectively and exclusively engaged with the exercise. Students understand best when they are effectively engaged with the learning experience. Whatever your teaching approaches, make sure to fuse questions and replies, conversations, group work, hands-on exercises, and different methods of getting the students engaged effectively with the

learning of the contents. You should give close consideration to your students and feel sure that they are really getting a handle on the content and not merely tuning in. Taking an interest in the learning will encourage this degree of comprehension. Permit them to build information instead of attempting to feed them with information. Finally, for this step, feedback must be provided to the learner before any type of evaluation is conducted.

Evaluate and Revise - The last advance of the ASSURE technique is to Evaluate Student Performance. Here the assessment ought to be coordinated to the target. Eventually, this final stage is the most significant. You should assess the guidance procedure through, and through utilizing the goals you made before all else. It is useful to consider your complaints, the instructional process, the instructional materials, and the appraisal. By assessing the students against the targets, it tends to be resolved if the exercise was successful and whether any progression should be altered or rethought.

The ASSURE lesson plan model guides in the joining of innovation into study hall guidance. It fills in as a guide for educators and spotlights fair and square of innovative help applied. The best possible utilization of this model will enhance day by day exercises and understudy exercises and expand the capability of open innovations.

Application

Develop an ASSURE lesson plan based on the above concepts and apply all the insights that you have gained in this lesson.

Closure

Congratulations! You have positively answered the endeavors and tasks for this lesson. It is not out of the ordinary that you have taken a great deal from this exercise. If there are a few pieces of the activity that you don't comprehend, don't hesitate to ask your teacher through instant message, email, or different methods for correspondence accessible.

You have just finished this Module. Enjoy the next module and gained more understandings of ICT in various content areas. Have fun learning! But before that, please answer the module assessment to check your knowledge.

Module Assessment

This test aims to evaluate your understanding of the Cone of Experience, TPACK, and ASSURE. Read the question and encircle the letter of the correct.

1. A practical model for educators as they continue using digital resources and techniques to promote learning and teaching.

A. SAMR model
B. ASSURE Model
C. TPACK model
D. Dick and Carey Model

2. Which statement applies to correctly to Edgar Dale's Cone of Experience?
   A. The closest you get to the base, the more direct the learning process becomes.
   B. The further from the edge you are, the more accurately the learning process is.
   C. The closer you are to the base, indirect the learning experience becomes.
   D. The farther you are from the base, direct the learning experience becomes.

3. As implied in the Cone of Experience, which will work best for kindergarten children?
   A. Videos
   B. Books
   C. Audio recordings
   D. Real-life experiences

4. It is the knowledge that teachers have about their content and the knowledge that they have about how to teach that specific content.
   A. Technological Pedagogical Knowledge (TPK)
   B. Technological Content Knowledge (TCK)
   C. Pedagogical Content Knowledge (PCK)
   D. Instructional Content Knowledge (ICK)

5. Teachers need to know what unique technology is sufficient for presenting materials of a particular subject matter. This is ...
   A. TK
   B. TCK
   C. PCK
   D. CK

6. The subject matter for teaching can be changed by teachers, such as discovering different ways to portray resources and modifying them to suit their students ' needs.
   A. TK
   B. CK
   C. TCK
   D. PCK

7. _____ is an example of an activity to measure Technological Content Knowledge (TCK).

A. Researching an event from history and composing a piece of music from the period
B. Researching an event from history on your laptop
C. Researching an event from history and writing a two-page report
D. Researching an event from history and producing a podcast to teach the same knowledge to younger students

8. _____ Knowledge is the knowledge used by the instructor to deliver the material most effectively.
   A. Content
   B. Curriculum
   C. Pedagogy
   D. Technology

9. Which of the following measures to Use MATERIALS is NOT included?
   A. Prepare the materials, media, and technology
   B. Prepare the environment
   C. Prepare the teachers
   D. Prepare the learners

10. ABCD is used to create a well-stated learning objective. What does C stand for?
    A. Confusion
    B. Conditions
    C. Conditioner
    D. Creativity
11. Prof. Gee wants her class to learn how to manipulate a microscope. She then brought the apparatus in her class and allowed each student to explore it. This activity falls on what type of experiences in Dale's Cone of Experience?
    A. contrived
    B. demonstration
    C. Direct purposeful
    D. Exhibit

12. Based on Edgar Dale's Cone of Experience, Which activity is closest to the real thing?
    A. View images
    B. Attend exhibit
    C. Watch a demo
    D. Hear

13. Based on Edgar Dale's Cone of Experience, which activity is farthest to the real thing?
    A. Read
    B. Hear
    C. View Images

D. Attend Exhibit

14. When a teacher talks about a haunted house, pupils will not be able to imagine what kind of home it is, how does it look. Still, if a picture is being shown, the learners will have a specific visualization of the type of haunted house the teacher describes. Pupils will then have uniform information about the topics discussed. The picture is used to
    A. lend meaning to what one reads
    B. concretize words and symbols
    C. introduce or motivate
    D. correct misconceptions

15. To teach the democratic process to pupils, Biag Elementary School decided that the election of class officers shall be patterned after local elections. There are qualifications to set for candidates, a limited period for campaign and rules for posting campaign materials, etc. Which of the following did the school use?
    A. Symposium
    B. Simulation
    C. Role Playing
    D. Exhibit

MODULE SUMMARY

You are awesome! You have completed Module 3, which is all about Theories and Principles in the Use and Design of Technology-Driven Learning Lessons. Essential points covered in the Module include:

- The Cone of Experience is a visual depiction of the idea that learning events can be put in specific categories based on the extent to which the non-abstract referents of real-life experiences express themselves.

- Dale's explanations are vague enough to allow a wide variation of understandings to rely upon. Nevertheless, Cone has been considered for many ways to bear witness to the vigor and attractiveness of Dale's visual metaphor.

- The TPACK framework was proposed to emphasize the need to situate technology knowledge within the content and pedagogical knowledge. TPACK considers teachers' expertise As dynamic and multifaceted, critical techno-centric approaches focusing on the achievement of technical competences separate from pedagogy and content.

- With the increasing focus on technology, we also need to learn how to combine technology with our content and pedagogy to create a productive learning environment.

- ASSURE model, even though it was incorporated from Gagne's nine events of instruction, and both models are very similar. The main reason this model is my personal preference is that it is intended for planning and delivery of teaching with technology and media, and therefore makes it appropriate for planning distance education.

- ASSURE model to instruct teachers on how to prepare and implement lessons that incorporate technology efficiently into their teaching in the classroom. Its simple, realistic approach has made it one of the education arena's most commonly taught models of instruction.

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Module 4

ICT in Various Content Areas

Module Overview

"ICT is a skill which is essential in the world we live in. Our pupils need to use the latest technology to offer them an effective education in the twenty-first century."

- Jane Rosser-

Lessons in this Module

- 21st Century Literacy Skills
- Instructional Design Models
- Technology Enhanced Teaching Lessons exemplars
- ICT Conventional Materials to Enhance teaching
- Distance Learning
- Relevance and Appropriateness in the use of Technology in Teaching and Learning

A

A

As teachers in the 21st century, we tend to become more resourceful in the usage of ICT tools in the teaching-learning process. Learning the different tools available will help us to be equipped in providing quality education to our students. Together with conventional and non-conventional learning and the materials available, the modalities

and platforms in distance learning will also give us more options in delivering our course contents effectively.

At the completion of this module, you should be able to:

- identify and describe the elements of 21st-century literacy skills
- discuss the rationale for teaching and learning 21st Century Skills
- write a Personal Lifelong Learning Plan (PLLP).
- introduce an instructional design model
- introduce sample technology-enhanced lessons to support learning
- describe flexible learning environments that enhance collaboration with the positive use of technology tools in teaching.
- Explain what conventional learning and its implications are.
- Differentiate conventional and non-conventional learning.
- Identify what the different digital learning materials and conventional learning resources that can support the teaching and learning process are.
- compare and contrast synchronous and asynchronous learning modalities; and
- identify what examples of distance learning platforms are.
- define what is instructional material;
- discuss the relevance and appropriateness in the use of technology in teaching and learning;
- explain the importance of the relevance and appropriateness in using technology in teaching;
- evaluate technologies and instructional materials used by teachers in teaching

Are you ready? Then start the lessons now!

Lesson 1

21st Century Literacy Skills

Learning Outcomes

At the end of the lesson, you should be able to:

- Identify and describe the elements of 21st century literacy skills.
- Discuss the rationale for teaching and learning 21st Century Skills.
- Write a Personal Lifelong Learning Plan (PLLP).

Time Frame 3 days

Introduction

With the upsurge of the 21st century, the whole world has seen a period of extraordinary change in all territories, regardless of whether it is instruction, worldwide exchange, and economy, innovation, or society. As of late, the COVID-19 pandemic is likewise hurling difficulties for a person to adapt to its effects. Usually, for such occasions, an alternate range of abilities is required that would empower an individual to adapt up and prevail with regards to confronting the difficulties, all things considered, prompting his/her comprehensive advancement.

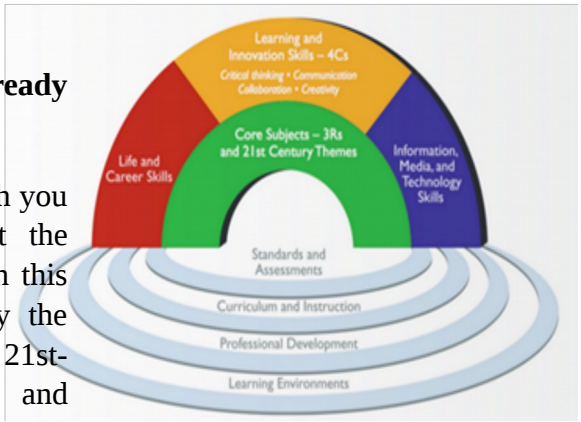
These abilities are tended to as 21st Century Skills/Learning Skills/Transversal Competencies and so on. The 21st Century Skills are the aptitudes that are required by a person for his/her all-encompassing turn of events with the goal that he/she can add to the advancement and improvement of the general public/country and world.

Effective instruction in 21st-century literacies takes an integrated approach, helping students understand how to access, evaluate, synthesize, and contribute to the information. As a forthcoming teacher of the 21st century, you need to be familiar with the latest literacies, or new fields of learning that you need to illustrate and prioritize while managing teaching and learning activities. But first, these literacies need to be established yourself before you can pass them on to your students.

Activity

What Do You Already Know?

To find out how much you already know about the concepts discussed in this lesson. Try to Study the Framework of 21st-Century Learning and answer the KWL below.



Think I Know	Think I Will learn	-L- Think I have Learned
Final category designations for "L":		

Brainstorm and list what you know in the first column. Write questions or statements in the 2nd column about what you think you will learn. Read the selection. Write what you have learned in the 3rd column. Categorize what you have learned.

Analysis

To extend the information about the lesson, address the following issue comprehensively.

- In your own words, define 21st Century Skills.

_____
_____
_____

- Why is it essential, as a teacher, to learn the expertise, skills, attitudes and values required to respond to 21st-century demands?

_____
_____
_____
_____
_____

- Characterize and briefly describe some of the core literacies of the 21st century.

_____
_____
_____
_____
_____

- Explain a person who is: information and communications technology (ICT) literate and media literate.

_____
_____
_____
_____

- Why is needed to incorporate the 21st Century Literacy Skills agenda into an education delivery system?

_____
_____
_____
_____

- Cite evidence do you have that says 21st-century skills improve teaching and learning. Where is this impacting teaching and learning?

_____
_____
_____
_____

- 21st-century skills are all critical for your students to master to achieve success in the future. You now try to review the descriptions of each skill and think of
  A. What could it mean in your subject and grade level in the future?

_____
_____
_____

B. How can you integrate these skills into your lesson plan?

_____
_____
_____

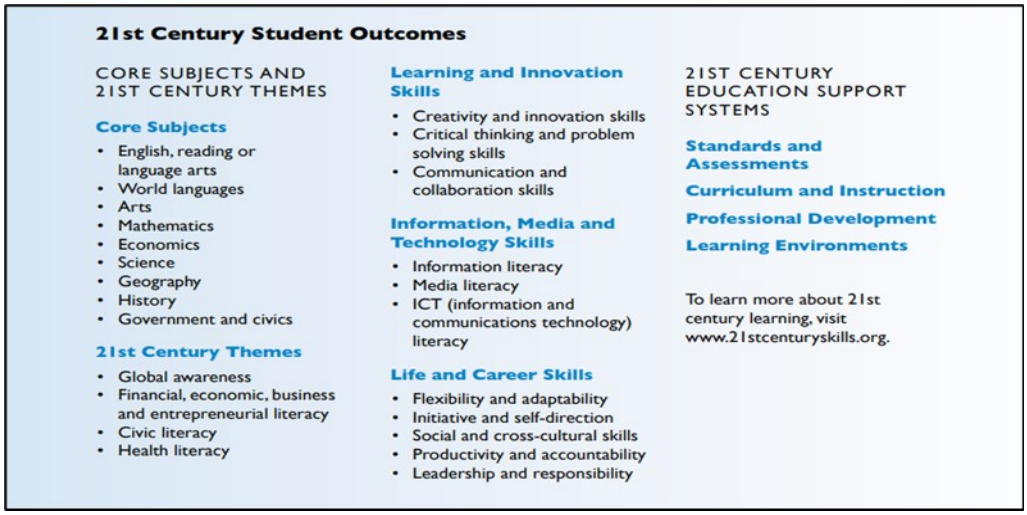
C. What would these skills look like in your classroom?

_____
_____
_____

Abstraction

What are 21st Century Skills?

The word 'abilities of the 21st century' refers to a wide range of believed expertise, skills, work habits, and character traits by educators, school reformers, college professors, employers, and others to be critically important to success in today's world. 21st Century Skills refer to the skills that are required to enable an individual to face the challenges of the 21st-century world that is globally-active, digitally transforming, collaboratively moving forward, creatively progressing, seeking competent human-resource and quick in adopting changes.



Wagner (2010) and the Change Leadership at Harvard University identified another set of competencies and skills. Informed by several hundred interviews with business, non- profit and education leaders, Wagner stressed that the students need seven survival skills to prepare for life, work and citizenship in the 21st century: Critical thinking and problem
solving, collaboration and leadership, agility and adaptability, initiative and entrepreneurialism, effective oral and written communication, accessing and analyzing information, curiosity and imagination.

21st Century Themes

Global Awareness

- Make use of expertise from the 21st century to consider and fix global problems
- Learning from and engaging with people who represent various cultures, religions, and lifestyles in a spirit of mutual respect and open dialog in personal, work and community contexts
- Knowing other nations and traditions through the use of languages other than English

Financial, Economic, Business and Entrepreneurial Literacy

- Knowing how to make the best personal financial decisions
- Understanding the economy's position in society
- Use entrepreneurial skills to boost profitability and job opportunities in the workplace

Civic Literacy

- Being able to engage efficiently in public life by learning how to remain updated and respecting policy processes
- Exercising citizenship rights and responsibilities at the local, state, national and global levels
- Understanding the consequences of local and global political decisions

Health Literacy

- Obtaining, interpreting and recognizing basic health knowledge and resources and using them in ways that improve health
- Knowing preventive steps for physical and mental health include a healthy diet, nutrition, exercise, disease avoidance, and stress management
- Usage of available information to make reasonable decisions to safety
- Establishing and managing personal and family wellbeing priorities
- Understanding regional and international facets of public health and safety

Environmental Literacy

- Demonstrate awareness and understanding of the environment and the conditions and circumstances that affect it, especially about air, atmosphere, land, food, energy, water and ecosystems
- Show experience and awareness of the effect of society on the natural environment (e.g., population growth, economic development, rate of resource use, etc.)
- Investigate and evaluate environmental issues, and draw definite conclusions on possible solutions
- Take individual and collective action to tackle environmental problems (e.g., global action, approaches that encourage action on environmental issues)

Learning and Innovation Skills

Increasingly, learning and creativity skills are recognized as those that distinguish students who are prepared for ever more dynamic living and working environments in the 21st century, and those who are not. To prepare students for the future, a focus on innovation, critical thinking, communication, and teamwork is essential.

Creativity and Innovation

Think Creatively

- Using a large variety of methods to generate concepts (such as brainstorming)
- Creating new and exciting innovations (both revolutionary and incremental)
- Create, refine, evaluate and assess your thinking to improve and optimize creative efforts

Work Creatively with Others

- Effectively create, introduce and pass on new ideas to others
- Be responsive and receptive to new and diverse perspectives; job input and feedback
- Demonstrating originality and inventiveness in the workplace and recognizing the actual drawbacks of introducing new ideas
- See failure as an opportunity to learn; know that creativity and innovation are a long-term, cyclical cycle of minor successes and regular errors

Implement Innovations

- Act on new ideas to make a concrete and meaningful difference to the area where the invention takes place

Critical Thinking and Problem Solving

Reason Effectively

- Using the different forms of reasoning (inductive, deductive, etc.) according to the situation

Use Systems Thinking

- Analyze how portions of a whole communicate with each other to achieve overall results in complex systems

Make Judgments and Decisions

- Analyze and appraise facts, points, statements, and beliefs effectively
- Analyze and analyze essential alternative perspectives
- Synthesize and connect the knowledge and the arguments
- Interpret details and conclude using the best possible methodology
- Grant serious thought to learning experiences and processes

Solve Problems

- Solve different forms of unknown issues, both conventionally and innovatively

- Identify and ask essential questions which explain different perspectives and lead to better solutions

Communication and Collaboration

Communicate Clearly

- Articulate thoughts and ideas effectively in several ways and contexts using vocal, written and nonverbal communication skills
- Hear to decode meaning effectively like information, beliefs, attitudes, and intentions
- Using contact for a variety of purposes (for example, educating, instructing, motivating and persuading)
- Using various media and technologies, and know-how to determine their performance a priori and their effect
- Effectively interact in can contexts (including multi-lingual ones)

Collaborate with Others

- Demonstrating the ability to work with diverse teams efficiently and respectfully
- Exercise flexibility and expertise to help make the sacrifices possible to achieve a shared goal
- Assume mutual responsibility for collaborative work, and respect each team member's contributions

Information, Media and Technology Skills

In the 21st century, people live in a technology and media-sufficient environment, characterized by different characteristics, including 1) exposure to an abundance of information, 2) rapid improvements in technology resources, and 3) the opportunity to collaborate and make individual contributions on an unparalleled scale. Citizens and staff, useful in the 21st century, must be able to demonstrate a variety of practical and critical competencies in information, media, and technology thought.

Information Literacy

Access and Evaluate Information

- Effectively (time) and productively (sources) access information;
- Assess details objectively and skillfully

Use and Manage Information

- Using details correctly and creatively for the specific issue or question
- Manage information exchange from a large variety of sources
- Apply a clear understanding of ethical/legal problems concerning access to and use of information

Media Literacy

Analyze Media

- Know how and why media messages are created, and for what purposes
- Examine how people understand terms differently, how principles and opinions are integrated or omitted, and how media can affect attitudes and behaviors
- Apply a clear understanding of ethical/legal problems related to access and use of media

Create Media Products

- Know-how and why media messages are created, and for what purposes
- Examine how people understand terms differently, how principles and opinions are integrated or omitted, and how media can affect attitudes and behaviors
- Apply a clear understanding of ethical/legal problems related to access and use of media

ICT (Information, Communications and Technology) Literacy

Apply Technology Effectively

- Using technology as an instrument for studying, arranging, analyzing and communicating information
- Using modern technology (computers, PDAs, media players, GPS, etc.), communication/networking tools, and social networks to access, handle, incorporate, analyze and generate information that works in a knowledge economy successfully
- Apply a clear understanding of ethical/legal problems related to access to and use of information technology

Life and Career Skills

Life and work environments today need much more than analytical skills and knowledge of content. In the globally competitive knowledge age, the ability to manage the diverse living and work environments requires students to pay close work in improving appropriate life skills and career skills.

Flexibility and Adaptability

Adapt to Change

- Respond to diverse tasks, employment, schedules and contexts
- Work successfully in an uncertain world and with shifting goals

Be Flexible

- Effectively integrate feedback
- Addressing praise, failures, and criticism
- Understand, negotiate and balance different views and beliefs for achieving workable solutions, particularly in multicultural environments

Initiative and Self-Direction

Manage Goals and Time

- Set expectations with parameters of measurable and intangible performance
- Tactical (short term) and strategic (long term) alignment goals
- Using resources, and effectively control workload

Work Independently

- Track, describe, prioritize and execute tasks without direct supervision

Be Self-directed Learners

- Go beyond the necessary skills or curricula to develop and enhance one's learning and knowledge
- Demonstrate commitment to developing skills to professional level
- Demonstrate dedication to Lifelong Learning
- A critical reflection on past experiences to guide future development

Social and Cross-Cultural Skills

Interact Effectively with Others

- Know when listening is necessary, and when to speak
- Behave properly, professionally

Work Effectively in Diverse Teams

- Respect cultural differences and collaborate with people from all walks of life and community effectively
- Respond openly to opposing ideas and beliefs
- Profit from social and cultural differences to generate new ideas and boost innovation and job effectiveness

Productivity and Accountability

Manage Projects

- Set and achieve targets, particularly when faced with challenges and conflicting pressures
- Prioritize, schedule and execute work to achieve the desired outcome

Produce Results

- Demonstrate added qualities associated with the development of high-quality outputs. Including the ability to work positively and ethically, efficiently manage time and tasks, multi-task, participate actively, be consistent and prompt, present yourself professionally and with a proper mark, collaborate and cooperate with teams, value, and appreciate the diversity of groups and be responsible for outcomes.

Leadership and Responsibility

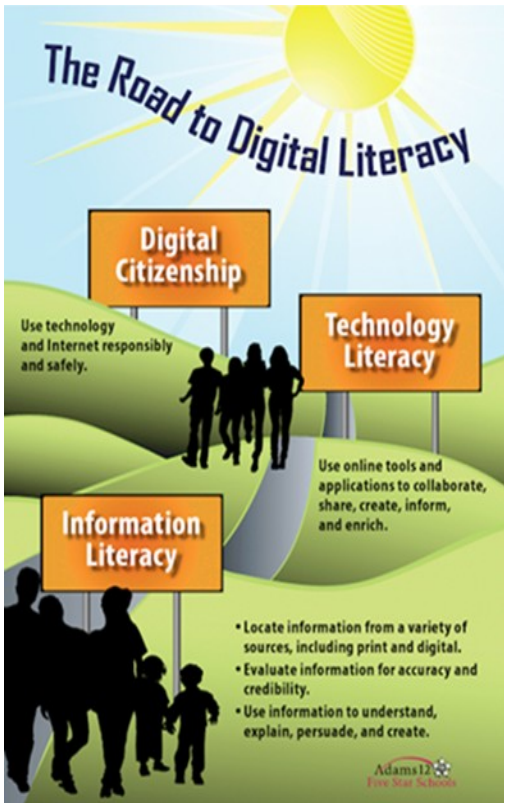
Guide and Lead Others

- Using organizational and problem-solving skills to influence others and direct them towards an objective
- Leverage other people's abilities to reach a shared goal
- Encourage others to do their very best by example and selflessness
- Demonstrate honesty and ethical actions in exerting authority and control

Be Responsible to Others

- Act professionally with broader group values in mind

What is 21st Century Literacy Skill?



Information, both from the traditional sources like Books, Newspapers, etc. and other digital sources like the Internet sites, social media, Apps, etc. is to be used effectively and judiciously by students. It is to be seen carefully by the teachers that information available is used at all levels of Bloom's TaxonomyThey must be able to recall, understand, apply, interpret, assess the information provided, and build new knowledge.

In Growing Up Digital: How the Net Generation Is Changing Your World, gives the following eight reasons why students use technology:

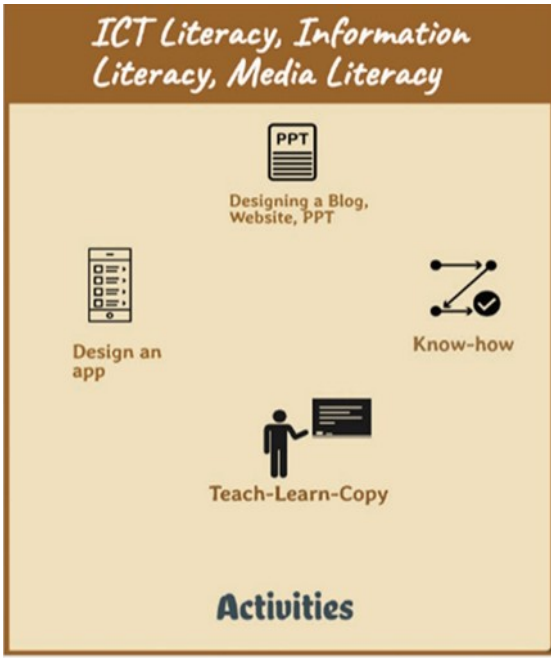
- Freedom of expression
- Facility to use it as per likings
- Multiple resources of information
- Open interaction
- Blend of work and play
- Connecting and collaborating
- Exploring and Innovating

Tabular presentation of the basis, purpose, and strategy in the digital classroom.

Basis	• Accessing Information • Collaborating • Communicating • Using Information • Analysing Information • Interpreting Information • Creating New Information
Purpose	IMT makes the learning environment more exciting than a traditional classroom environment and helps the students perform better in their respective careers.
Strategy Digital classroom	• With traditional blackboard, digital interactive boards

	should be placed in the classroom. • This will aid in the teaching-learning process. In teaching of lesson related to space, teachers can show videos of space to children for long-lasting memories.

Activities that develop 21st Century Literacy skills



Know-How

The teacher must show the children how to look for the details and where to look. Then the teacher will give them topics to explore and will see how children are seeking and if they were following her instructions or not.

Design an App

Students will be asked to identify a problem (environment/ societal /school-related) and design an App using ICT to offer a viable solution to it. Even if they do not have the technical know-how to create an App, they will plan it on paper by preparing a detailed write-up on the why, what, how, etc. of the App. This would also enhance their critical thinking and decision making.

Designing a Blog, Website, PPT

Ask children to design a PPT or blog and see how they do that. Tell them what all can be done in the PPT or blog. This will help children to get information about how to use Powerpoint and Microsoft word etc.

Application

Would you love to find out how much the module has taught you? Start this mission, and complete it.

Identify the literacy areas in which you are great, right, or weak. Then build a personal life plan to fix the places where you are still weak and strengthen those you already are good or strong. In writing your Own Lifelong Learning Plan (PLLP), you can use the template in the activity as a reference, which includes the following:

- The seven 21st century literacies
- Your level of competency for each literacy

- Activities that will help improve or enhance literacy
- Time Frame
- Support/Resources Needed
- Barriers/Challenges
- Solutions/Action Points

Closure

The key competitiveness challenge of the next decade is developing an integrated, 21st-century public education system that prepares Filipino's to succeed. Addressing this challenge requires stable, forward-thinking leadership from government, policy-makers, and teachers. This lesson gave you details on the experience, skills, attitudes, and values to help you prepare to be an efficient teacher in the 21st century.

Congratulations! It shows that you are already familiar with the contents of this lesson. You can now proceed to the next experience of this module.

Lesson 2

Instructional Design Models

Learning Outcomes

At the end of the lesson, you should be able to:

- Introduce instructional design model
- Introduce sample technology- enhanced lessons to support learning;

Time Frame 3 days

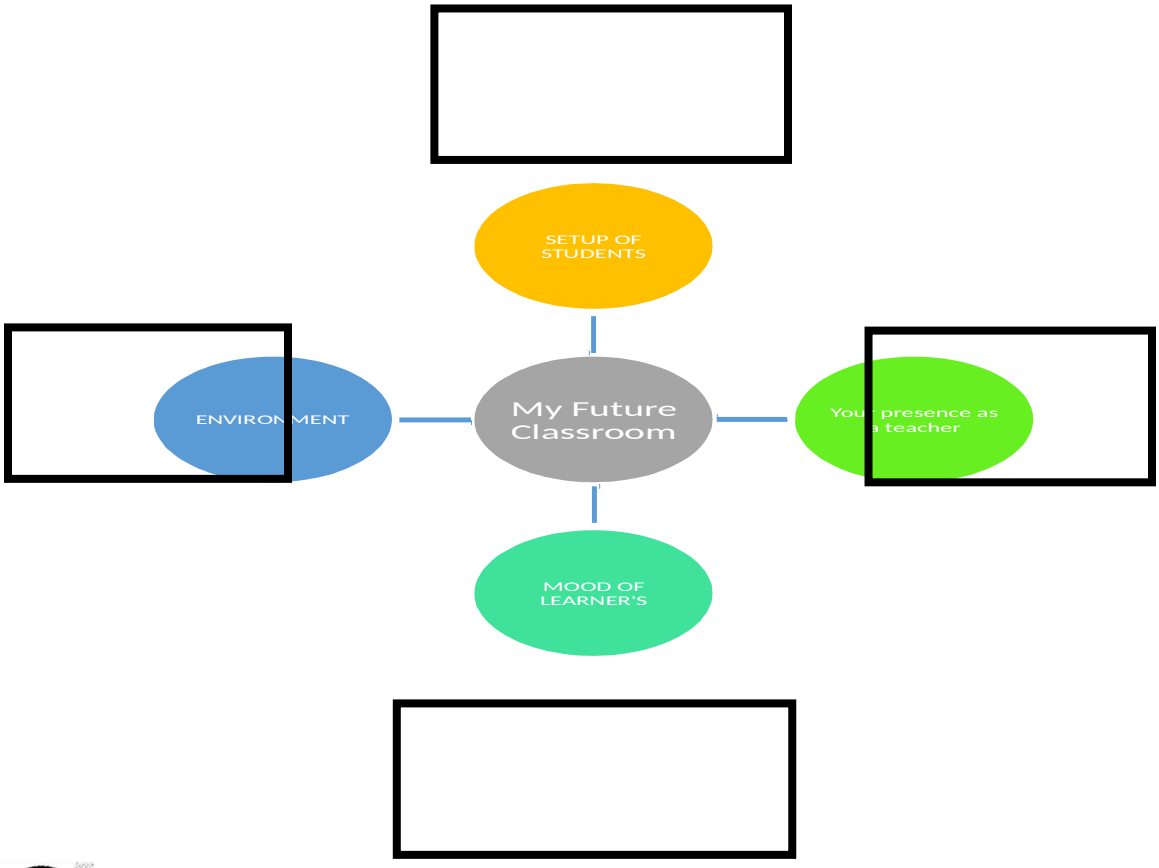
Introduction

As an aspiring teacher, you are being exposed to various techniques and strategies in the teaching-learning process. With this, you were able to be given a chance to choose different instructional models that you may think is the best model in your teaching. In this lesson, you will understand better how these instructional models work and their appropriateness in the topic given.

Activity

Back to the future!

~If you could turn the clock fast and see yourself in a classroom as a teacher, who are you as a teacher? Let's find out and try to fill in the information on the semantic web.



Analysis

To extend the information about the lesson, address the following issue comprehensively.

- What makes the learning process successful?

  _____
  _____
  _____
  _____

- What factor creates an ideal environment for learning?

  _____
  _____
  _____
  _____

- What is your ideal classroom environment?

- What classroom scenario is your greatest fear?

- How a teacher affects the mood of learners in the learning process?

- What do you think is your greatest asset as a teacher? Why?

Abstraction

Instructional Design Model

An instructional model serves as an anchor wherein the journey to learning is rooted. There are various instructional designs created to keep track of the efficiency of the instructions. Through different models of instructions, teachers were able to draw some inspirations on the different techniques and strategies patterned on the models of instructions. Nevertheless, teachers should bear in mind that there is such no such thing as a perfect model. Still, it will be in the appropriateness of the model and how the teacher processes the learning for such a model to be effective.

In a nutshell, different instructional design models to be mentioned in this lesson are as follows:

- Gagne's Nine Events
- Blooms Revised Taxonomy
- ADDIE
- Merrill's Principles of Instructions

As aspirant teachers, I want you to have an in-depth knowledge of the different instructional models for you to be able to make use of them appropriately in your future career as a leader inside the classroom in the process of learning.

A. Gagne's Nine Events of Instructions

Robert Gagne has created Nine Events of Instructions that have been widely used in the educative process. This Instructional model has focused on providing teachers, instructors, and facilitators in the academe an organized process efficiently designed to help maintain efficiency in the teaching-learning process.

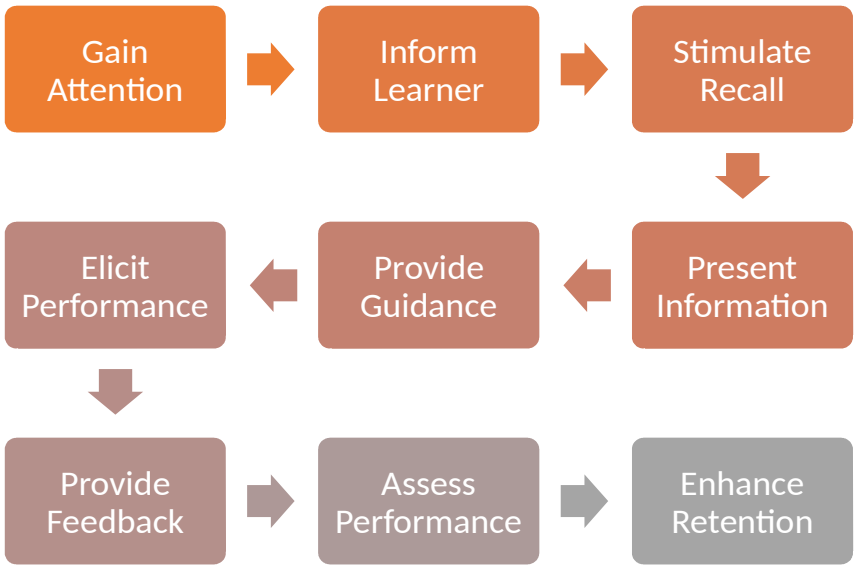


Figure 1: Gagne's Nine Events of Instructions

Here is additional information on the Nine Events of Instruction developed by Gagne:

a. Preparation

1. Gain Attention (reception)-this is the part wherein the teacher must get the attention of the learners and keep them focus while the content of the lesson is about to be delivered.
2. Inform Learner of Objective (expectancy)- this is to lay down your expectation and focus on the learning. An announced objective (s) helps learners have an overview of how their performance will be assessed and the value of the content in the future.
3. Stimulate Recall of Prior Information (retrieval) – this is based on the schema theory wherein student's prior knowledge will be linked and associated with the newly introduced knowledge.

b. Instruction and Practice

4. Present Information (selective perception)- this is where the new content will be systematically organized for the learning process to be achieved. One important matter to be considered is the varied learning style of learners; this differentiated instruction is highly recommended.
5. Provide Guidance (semantic encoding)-this is where facilitation of the learning process should be taken into high consideration especially when learners are

drawing in new knowledge and associating it to their prior knowledge to avoid a negative transfer.

6. Elicit performance (responding)-this can be in the form of individualized or grouped; output-based or process-based, and outright performance or homework.
7. Provide Feedback (reinforcement)- this is one of the essential parts wherein learners will be able to understand whether the learning process is a success or needs to be enhanced or revisit.

c. Assessment and Transfer

8. Assess Performance (retrieval)- this is one of the most anticipated parts of the student's performance wherein they were able to know if the expected outcome or the learning objectives has been met or there is a need for them to expound their knowledge.
9. Enhance Retention Transfer (generalization)- This is an additional input to allow learner's retention of new knowledge. This can be in the form of additional reinforcement through practices and summarization.

Events of Instruction	Techniques
Gaining Attention (reception)	• Pose thought to provoke questions • Present an intriguing problem • Present meaningful and relevant challenges
Informing Learners of the objective (s) (expectancy)	• Describe what they will be able to do after the session • Describe the required performance and its criteria • Explain how the learning will benefit them
Stimulate recall of prior information (retrieval)	• Ask a question on their previous experience • Ask about their understanding of the previous concepts • Give a similar situation to what they will be learning
Present Information (selective perception)	• Organize content in easy to understand manner • Chunk information • Use multiple delivery methods, a variety of texts, and graphics as well as approaches.
Provide Guidance (semantic coding)	• Concept mapping for an association, graphics to make visual associations • Mnemonics to cue and prompt learning; analogies on knowledge construction • Case studies for a real-world application
Elicit Performance (responding)	• Have the learner demonstrate the acquired behavior or knowledge of the content • Ask thought-provoking questions • Have the learner apply the knowledge to a scenario

	or case study.
Provide Feedback (reinforcement)	• Be positive • Be objective • Deliver focused and concise feedback on areas of student's control
Assess Performance (retrieval)	• Written test, oral questioning, short essays or questionnaires, etc.
Enhance Retention Transfer (generalization)	• Have them summarize the content • Have them generate examples • Have them create concept maps

B. Bloom's Revised Taxonomy

There are six levels of cognitive learning, according to the revised version of Bloom's Taxonomy. Each level is conceptually different. The six levels are remembering, understanding, applying, analyzing, evaluating, and creating.

Using Bloom's Revised Taxonomy in Assessment

These levels can be helpful for the learning outcomes to be categorized most appropriately according to the level of cognitive needs and demands as well as the ability of the learner. This, the teacher was able to pattern his/her learning objectives accordingly. Further, teachers will be able to assess according to his/ her understanding of the different cognitive levels.

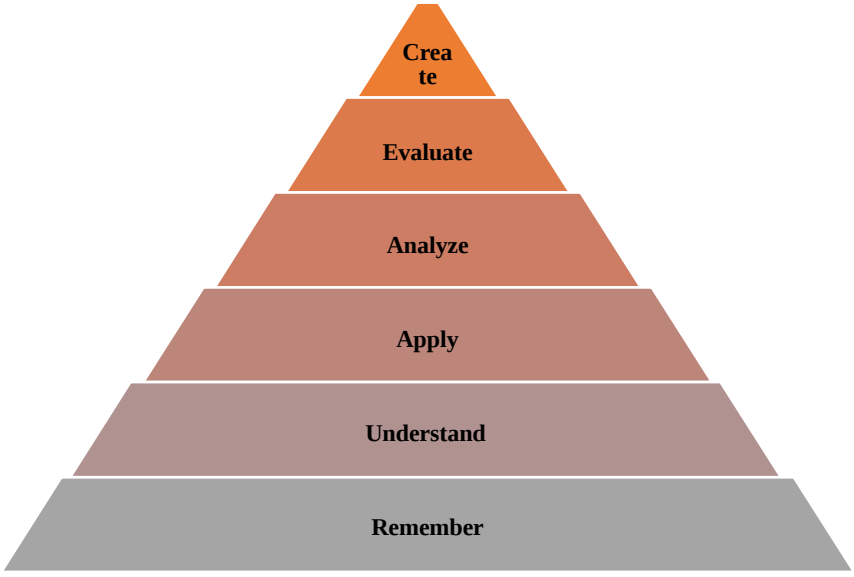


Figure 2: Bloom's Level of Cognitive Learning

1. **Remember**- is a simple retrieval, recall, and recognition of essential and relevant knowledge from long-term memory
   - simple identification of the different parts of speech in a sentence, tell the basic step in the dance or label food according to its category (go, glow, grow)

2. **Understand**-to demonstrate comprehension by explaining facts

   -summarize a story, rephrase an article, outline the steps in case of emergency

3. **Apply**-use information or skill and relate it to a new situation

   -translation of the local dialect to the second language, demonstrate the different approaches of teaching, execute the basic step in dancing

4. **Analyze**- break material into its constituent parts and determine how the parts relate to one another and/or to an overall structure or purpose

   -compare and contrast the similarities and differences of land and water animals, analyze the relationship between different characters in a play, analyze the relationship between various members of the family according to group

5. **Evaluate**- is to make judgments based on criteria and standards

   -determine the quality of the manuscript according to a given standard, judge whether methods used in a demonstration of the product is valid or not, determine the fallacies on an article based on criteria

6. **Create**- put elements together to form a new coherent or functional whole; reorganizing elements into a new pattern or structure

   -compose a poem, write a thesis, write an essay of an event

Bloom's Level of Cognitive Learning	Learning Outcome Verbs
Remember	cite, define, describe, identify, label, list, match, name, outline, quote, recall, report, reproduce, retrieve, show, state, tabulate, and tell.
Understand	abstract, arrange, articulate, associate, categorize, clarify, classify, compare, compute, conclude, contrast, defend, diagram, differentiate, discuss, distinguish, estimate, exemplify, explain, extend, extrapolate, generalize, give examples of, illustrate, infer, interpolate, interpret, match, outline, paraphrase, predict, rearrange, reorder, rephrase, represent, restate, summarize, transform, and translate.
Apply	apply, calculate, carry out, classify, complete, compute, demonstrate, dramatize, employ, examine, execute, experiment, generalize, illustrate, implement, infer, interpret, manipulate, modify, operate, organize, outline, predict, solve, transfer, translate, and use.
Analyze	analyze, arrange, break down, categorize, classify, compare, connect, contrast, deconstruct, detect, diagram, differentiate, discriminate, distinguish, divide, explain, identify, integrate, inventory, order, organize,

	relate, separate, and structure.
Evaluate	appraise, appraise, argue, assess, compare, conclude, consider, contrast, convince, criticize, critique, decide, determine, discriminate, evaluate, grade, judge, justify, measure, rank, rate, recommend, review, score, select, standardize, support, test, and validate.
Create	arrange, assemble, build, collect, combine, compile, compose, constitute, construct, create, design, develop, devise, formulate, generate, hypothesize, integrate, invent, make, manage, modify, organize, perform, plan, prepare, produce, propose, rearrange, reconstruct, reorganize, revise, rewrite, specify, synthesize, and write.

C. ADDIE

The ADDIE model is the generic process traditionally used by instructional designers and training developers. The five phases—Analysis, Design, Development, Implementation, and Evaluation—represent a systematized process of instruction wherein the learning process is established in a framework of the organized flow of knowledge effective transfer.

Figure 3: ADDIE Model

1. **Analysis phase**- this phase introduces the focus of the lesson-the goals and objectives; also, learning environment, learner's prior knowledge, cognitive level, and learning style are
2. **Design phase** -is a systematic and specific phase wherein the different parts in the process of learning such as crafting learning objectives, assessment instruments, as well as appropriate contents and materials to name a few, will be taken into consideration

3. **Development phase** -is the output of the design phase where content will be assembled where the developers create and assemble the content assets that were created in the design phase

4. **Implementation phase**-a procedure for training the facilitators and the learners is developed. The facilitators' training should cover the course curriculum, learning outcomes, method of delivery, and testing procedures. Preparation of the learners includes training them on new tools (software or hardware), student registration.

5. **Evaluation phase**-is consists of two parts: formative and summative. Formative evaluation is carried throughout the process of learning, while summative is where the learner's comprehension.

The content of the unit will be assessed at the end of the process.

ADDIE Phases	Possible Outcome
Analysis	an analysis of training needs and a training plan
Design	an overview of the course design and storyboards/prototypes.
Development	Course Content
Implementation	Your courses are live in the LMS and learners can start to take and complete courses
Evaluation	An evaluation report and actionable changes for the current or future courses

D. Merril's Principles of Instructions

Dr. David Merrill set of fundamental principles of instruction that can lead to effective, efficient, and engaging instruction. Merrill's purpose was to identify the prescriptive principles common to various design theories and models.

Figure 4: Merril's Principles of Instruction

Purpose of Each Principle

1. **Problem-Centered**: Learning is promoted when learners are engaged in solving real-world problems.

2. **Activation**: The purpose of the activation phase is to create activities that build on existing knowledge before exposure to new information. Activating

prior knowledge prepares your learners to connect new incoming information with existing knowledge.

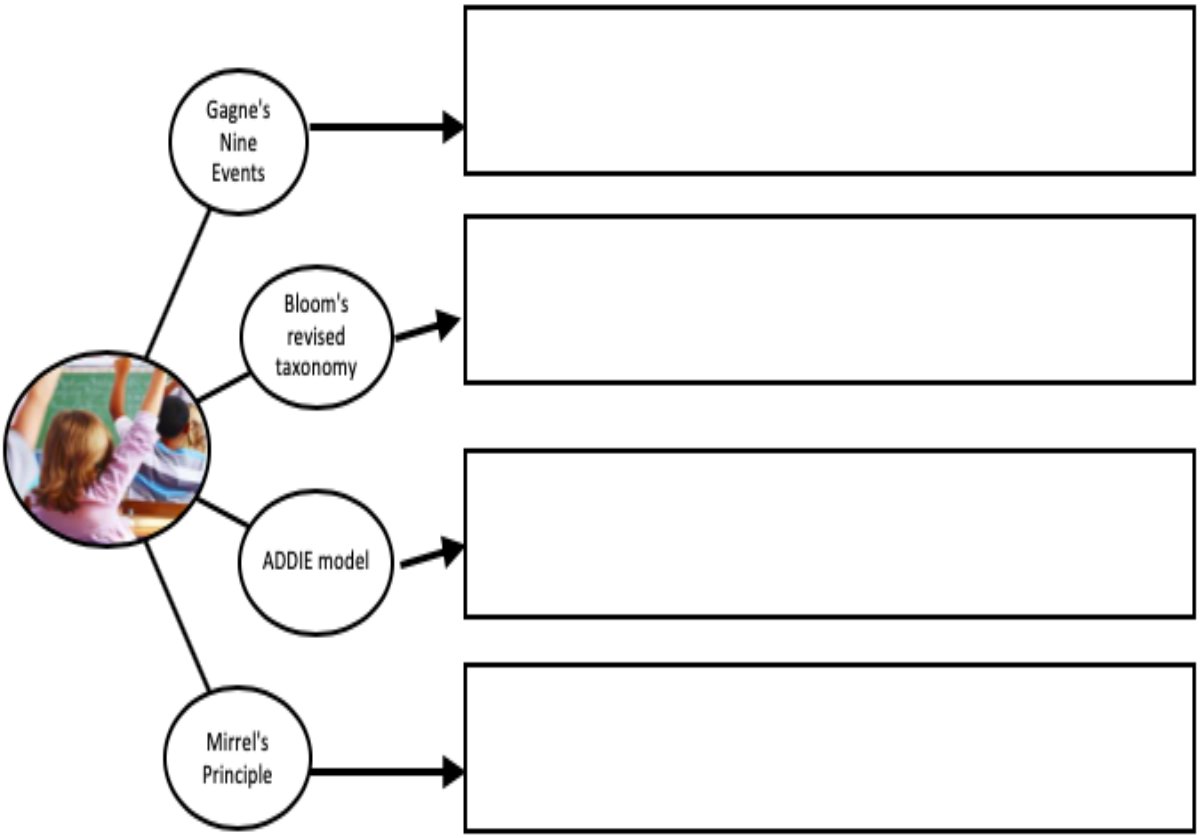
3. **Demonstration**: The purpose of the demonstration phase is to create activities that demonstrate your learners the steps and procedures. Demonstrating knowledge requires the learners to be mentally active, but they are not participating physically.

4. **Application:** The purpose of the application phase is to create activities that give your learners opportunities to apply what they are learning. Application of new information provides the learner's opportunities to do something, such as practice a procedure, play a game, answer a question, etc.

5. **Integration**: The purpose of the integration phase is to create activities that help your learners select and express what they learned and how they may use it. Integrating new knowledge helps the learners connect what they are learning to their work or their lives.

Application

Illustrate the (a) presence and (b) the importance of the different Instructional models in a classroom setting.



Closure

Understanding the basic concept of the Instructional Design models is like finding the blueprint in the teaching-learning process. With it, you, as an aspiring teacher, will be able to have in-depth knowledge of not just what to teach but how to teach, exploring endless possibilities and wonderful experience inside the classroom. Thus, creating an unforgettable holistic teaching-learning experience together with your excellent students in the near future. In this lesson, along with your grasping the concepts of the different models, allows you to have a glimpse of who you will be. Good luck, future teacher!

You can now proceed to the next experience of this module.

Lesson 3

Technology Enhanced Teaching

Learning Outcomes

At the end of the lesson, you should be able to:

- describe flexible learning environments that enhance collaboration with the positive use of technology tools in teaching.

Time Frame 2 days

Introduction

Hi! Welcome to Lesson 1. I assumed that you already understood the previous module. This lesson will give you background and perspectives on Technology-Enhanced Teaching.

Are you ready? Let's begin!

Activity

Try this!

- Identify all feasible technological tools that can be applied in your locality. Cite at least 5 technological tools.

  _____
  _____
  _____
  _____

- Draw a concept map which links the technological tools that contributes teaching learning process.

Analysis

To extend the information about the lesson, address the following issue comprehensively.

- How enhanced technology affects the learners in the learning process?

  _____
  _____
  _____
  _____

- How can enhanced technology teaching assist the learners in their learning process?

Abstract

Enhanced Technology Teaching

Teachers should seek out technology that enhances student learning. Most students come to our courses with a strong foundation in the use of technology and expert instructors to incorporate it into their teaching. Some caution is necessary to avoid using technology merely for effect, without knowing how it will enhance learning. Take the time to determine which technologies will support and to improve student learning, and learn how to use them.

Fig.1 Specific types of teaching and learning tools

Technology provides numerous tools that teachers can use in and out of the classroom to enhance student learning. This page provides an introduction to some of the most common.

1. Blackboard

Teachers might use the course management system

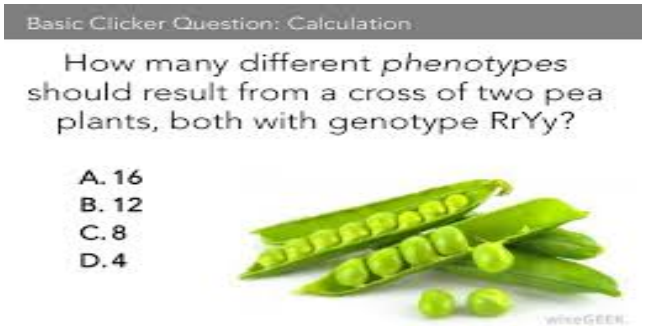
Blackboard. It focuses on online learning delivery but supports a range of uses, acting as a platform for online content, including courses, both asynchronous based and synchronous based.

(You can use the short, engaging Blackboard that helps your students get comfortable in Blackboard. Your students can do training and learning gaps, utilizing analytical data and reporting and choose which ones they want, or they can view multiple videos in a row about a particular topic.)

2. Classroom Response Systems ("clickers")

One way to encourage student engagement is by using electronic devices that allow students to record their answers to multiple-choice questions and will enable you to display the results instantly. The anonymity encourages participation, and their responses help the teacher know when further discussion is needed. The use of clickers can also catalyze discussion.

Clicker systems let you pose a question and have students respond with a device that looks like a TV remote. Several websites provide an alternative that allows students to respond with a cell phone or laptop. Schools should encourage faculty to use the web solution "Poll Everywhere," but either technology enables many strategies for engaging students.

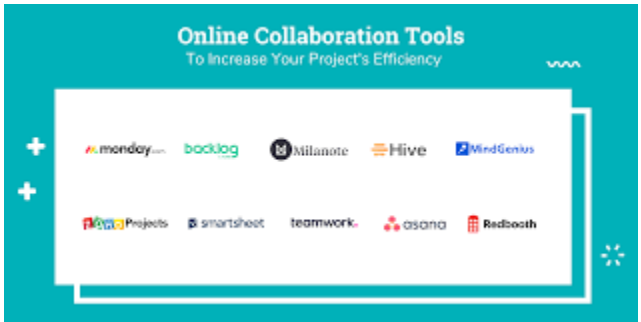


3. Online Projects and Collaboration Tools

Technology can support student collaboration on creating new knowledge, reflecting on what they are learning, or working together to achieve a deeper understanding of course material. These articles provide ideas about their use and misuse. Online tools provide many new options. Students can collaborate on projects, collect and synthesize information, and write for different types of audiences.

Example:

Teaching in the Cloud: Using Online Collaboration Tools to Enhance Student Engagement (discusses jointly edited Google Docs, Google Sites, wikis, cloud storage of

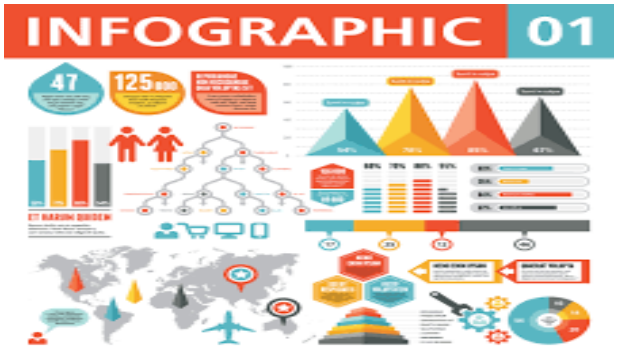


video projects, crowdsourced research, Google Spreadsheets for data aggregation, Piazza, and class blogs; also considers issues of IT support, ease of use, and student privacy).

3. Information Visualization Tools

Technology can also clarify and stimulate thought by transforming words into pictures. There are some tools to help lead your students to think more critically by encouraging them to structure information visually. Visualization tools can help you make information clearer to students, either by providing you with clearer visuals or, better yet, assigning them to use visuals to make connections. Visualization tools can help you create information clearer to students, either by providing you with clearer visuals or, better yet, assigning them to use visuals to make connections.

Example: Make Infographics in the Classroom (help your students deepen their understanding by showing connections, mapping, creating timelines, etc.).

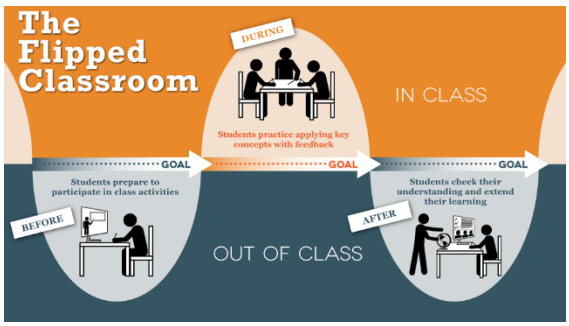


5. Flipping the Classroom

Sometimes a great way to move them toward higher levels of understanding is to move the lecture out of the classroom and use the in-person time for interactions that require applying, synthesizing, and creating. "Flipping" doesn't have to use technology, but tools such as videos, podcasts, online quizzes, and the like can help in and out of class activity work together. These resources explain the theory underlying this teaching method and provide practical suggestions for making it work.

Example:

Flipping the Classroom: Simply Speaking (video gives clear demonstration and examples).



6. Games

What could be more engaging than a good game, a game may lead to deeper learning and give some examples of their use in higher education.

Ex. Reacting to the Past (Elaborate games set in the past, in which students are assigned roles informed by classic texts in the history of ideas).

7. Converting a Face-to-Face Course to an Online Course

Teaching online, whether in a hybrid course or a wholly-online course, requires different techniques and different tools. Without the F2F contact, professors will need to be even clearer about setting and articulating expectations for digital work and participation. Encouraging interaction between professor and student and among students is an additional challenge, as is monitoring student learning as the course progresses. The online environment requires the use of basic technologies to digitize course materials as well as mastery of the university's learning management system. And various tools like Skype allow synchronous communications, while blogs and Twitter can encourage asynchronous interaction. Here are some ideas to get you started.

Example:

Synchronous learning is instruction and collaboration in “real time” via the Internet. It typically involves tools, such as:

- Live chat
- Audio and video conferencing
- Data and application sharing
- Virtual "hand raising"

Asynchronous learning methods use the time-delayed capabilities of the Internet. It typically involves tools, such as:

- E-mail
- Threaded discussion
- Newsgroups and bulletin boards

Application

Let us test your learnings from the lesson. You will generate ideas to provide a presentation by using a teaching and learning tool that is available to your local places. Your teacher will give allotted time to prepare your presentation and will be graded using the given criteria.

Closure

The implementation of technology in schools helps close that gap. Technology can enhance relationships between teachers and students. Technology helps make teaching and learning more meaningful and fun. Students are also able to collaborate with their classmates through technological applications.

By incorporating technology strategically, educators can enhance the learning experience and increase student engagement and curiosity. The future of learning lies in striking the most effective balance between digital and in-person educational experiences. Good luck, future teacher!

You can now proceed to the next experience of this module.

Lesson 4

ICT Conventional Materials to Enhance Teaching

Learning Outcomes

At the end of the lesson, you are expected to:

- Explain what conventional learning and its implications are.
- Differentiate conventional and non-conventional learning.
- Identify what the different digital learning materials and conventional learning resources that can support the teaching and learning process are.

Time Frame 3 days

Introduction

This lesson will help you understand the implications of both conventional and non-conventional ICT materials to the teaching and learning process. Are you excited to learn? If yes, let us start!

Activity

Let us activate your prior knowledge!

Instructions: Remember and identify the conventional learning materials below using the box of words. Good luck!

Chalk board	Text books	Manipulatives
Flip charts	Model	Flash cards

1. What have you noticed on the learning materials presented on the activity?

2. Why do you think they were identified as conventional materials?

3. Do you think that using these conventional learning materials enhances learning and teaching? Why or why not?

Analysis

- What conventional learning materials you remember you and your teachers used in your classes?

- Are those materials helpful in your learning experience?

- Based on the activity above, describe what conventional learning materials are.

- What do you think are the difference between conventional learning materials and non-conventional learning materials?

Abstraction

Conventional or traditional learning refers to a learning method wherein teachers and students interact face-to-face and is limited to the corners of the classroom. This type of learning is teacher-centered, meaning the students in a conventional classroom passively receive the information being provided by the teachers.

Conventional VS. Non-conventional Learning	
Conventional learning	Non-conventional
1. Teacher-centered. 2. Students learn via face-to-face classroom learning. 3. Students passively receive information. 4. Students have limited access to information. 5. Teacher decides the course of learning. 6. Learning by listening and memorization. 7. Materials are cheap and easy to use.	1. Student-centered. 2. Students can learn wherever they are. 3. Interactive learning. 4. Infinite access to information. 5. Student can decide what they want to learn and when they want to learn it (self-paced). 6. Audio-visual and technology based learning. 7. Most of the materials are expensive and is difficult to use/manipulate.

Learning and teaching are more meaningful, efficient, and fun if we incorporate the usage of learning or instructional materials.

These learning or instructional materials may come in different forms. One of these mentioned groups is called ***conventional*** or ***non-digital learning tools***.

Source: Educational Technology 2 by Mark Jay Peña

1. ***Conventional or non-digital tools*** or learning/instructional materials are those materials used in regular and "conventional or traditional" classrooms.

The usual conventional or non-digital tools or learning/instructional materials are the following: textbooks, charts, flip charts, pictures, posters, atlases, globes, maps, flashcards, worksheets, blackboards/chalkboards/whiteboards, bulletin boards, science lab apparatus and materials, models, diorama, dictionaries, encyclopedias, manipulatives, and others. These learning materials are beneficial and highly accessible to both teachers and students. They are also very simple, easy, and quick to use/manipulate. However, today, lessons can be taught and learned more easily by the use of ***non-conventional or digital learning tools*** because they are more engaging, especially to the 21st-century learners who are mostly audio-visual and digital native learners.

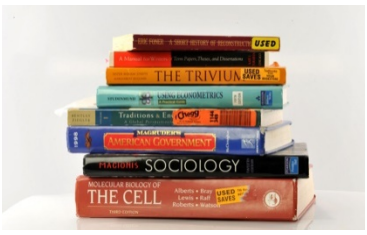
Source: Education 2.0: Blueprint for the 21st-century classroom by Amol Aurora

2. ***Non-conventional or digital tools*** or learning/instructional materials are those learning materials that are not commonly used in a traditional classroom. These materials are also identified as **modern teaching tools**. These materials include computers and laptops, calculators, slideshow presentations, e-books, radio, educational CDs, DVDs, audiotapes, interactive whiteboards/smartboards, television, mobile phones and tablets, and others.

Since you already know what conventional and non-conventional learning is and identify what some of the conventional and non-conventional tools are, let us now learn more about each of the tools.

I. Conventional or non-digital tools

1. Textbooks

in 

Textbooks are a collection of contents and information a particular subject and level that are printed and published. Books are designed to aid both the students and the teachers in the lessons and topics of the subject/s.

2. Charts and Flip Charts

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Charts and flipcharts are educational visual aids that are usually mounted on the wall or in its stand. It is a pad of paper fastened together; it includes pictures and representations based on a specific lesson. The pages are flipped to view the other lessons or topics.

3. Pictures and Posters

Pictures are visual aids used to teach or present a more realistic view of the topics. Educational images are usually used to depict stories, places, events, people, and others. While posters are visual aids that are used to depict symbols, icons, and even includes pictures. They are more comprehensive since captions and labels are present.

4. Atlases, Globes, and Maps

Atlases, globes, and maps are used in teaching mostly geography-related lessons because they provide an accurate visualization of the geographical, topographical, political, meteorological, and some other features of the Earth.

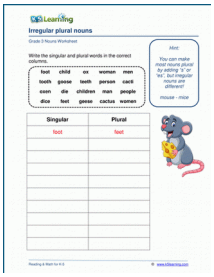
5. FlashCards

Flashcards are usually used as an aid in drill activities in English, Filipino, Math, and Science subjects.

This material has pictures, symbols, math operations, sentences, and phrases that help in the development of quick retrieval of information, which promotes mental ability.

6. Worksheets

Worksheet refers to a printed paper or a set of printed paper with activities, drills, and questions for the student to



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complete and answer. They are used by the teachers to determine the students' previous knowledge, outcomes, and process of learning.

7. Blackboards/Chalkboards/Whiteboards

These are boards that are usually made from wood, sophisticated plastic, fiber and even glass. These boards are usually used by the teachers to write and draw examples from the lesson that the students must write. These boards are also used in drills such as board works in math and spelling drills in English and Filipino. Almost all classrooms have these kinds of boards.

8. Bulletin Boards

Bulletin boards are boards with designs and artistic materials. They are used in giving up-to-date information, announcements, posting of public information, display of students' works and lessons, and more. It is usually wall-mounted and placed strategically for everybody to see it.

9. Dictionaries, Encyclopaedias, and Thesaurus

These are comprehensive reference books used by teachers and students to find the meaning of any word and or idea. They contain a collection of facts, knowledge, and other essential data.

10. Manipulatives

Manipulatives are various objects that help the students to manipulate and play. These objects are usually helpful in math and logic. It helps the students to understand the concepts through actual manipulation.

11. Science Lab Apparatus and Materials

Science laboratory apparatus and materials are used inside the laboratory with caution to exercise safety. These materials are used to demonstrate science activities and perform experiments. These are very useful since they enforce motivation and curiosity in science.

12. Models

Models are three-dimensional representation or replicas of the actual/real things being taught. It may be smaller, more significant, or even the same size as the exact thing. Models are used in teaching since they simulate first-hand experience/s. They can be viewed, examined, and manipulated by both the learners and the students.

13. Diorama

Dioramas are realistic scenic displays usually used in exhibits. Dioramas include three-dimensional characters such as people and animals and things such as buildings, equipment, vehicles, and others placed in a three-dimensional ground with flat, scenic background. Some examples are jungle scene, cityscapes, under the ocean, farms, and others.

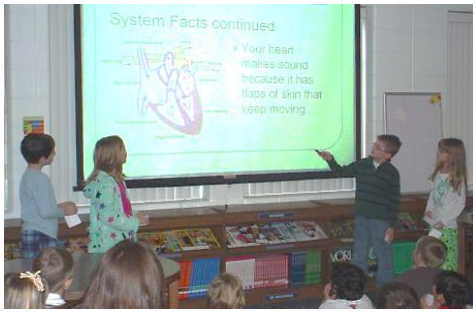
II. Non-conventional or digital tools

1. **Computers and Laptops**

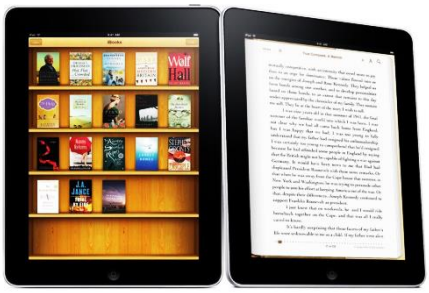
Computers and laptops are used in education as a tool for storing data, accessing and processing information using engines and applications. Students and teachers can also access the World Wide Web using these devices and can connect to projectors to project presentations.

2. **Slideshow Presentation**

Slideshow presentations using projectors are used in education to project slideshow presentations, videos, clips, and more. The use of applications can access this. It is beneficial to the teachers and students since it aids in learning by the projection of quality videos of the lessons that are difficult to explain.



3. **E-Books**



E-books are an electronic copy of published books. E-books are present in applications or downloadable materials that can be accessed using devices like tablets, laptops, mobile phones, etc.

4. **Radio**

Radios and Televisions are electronic devices that air or broadcast programs, news, and music. Radios and televisions are used in education as a venue to air or broadcast educational programs and lesson when the places are not reachable, they lack teachers, and if the area or country is experiencing a calamity or emergency as distance learning must be practiced.

5. **Educational CDs, DVDs, and Audiotapes**

CDs, DVDs, and Audiotapes are digital storage of video or audio lessons. They contain music, speeches, drama, stories, poetry, pre-recorded lessons, and others.

6. **Mobile Phones and Tablets**

Mobile phones and tablets are handheld devices that are very useful in learning. These devices can be used to access the internet, almost all applications, even e-books and can be used as a calculator, map, converter, etc.

7. **Interactive Whiteboards/Smart Boards**

Smart boards or interactive boards are used by some school in the world. They are large screen that is mounted on the wall. These boards can access the internet and can project videos, pictures, and others. These boards are very promising since it motivates the learners because of its interactive nature.

Application

Two pictures are presented below: a traditional classroom that practices conventional learning and a modern classroom which practices non-conventional

learning. Analyze what are their major differences including their advantages and disadvantages.

Modern Classroom	Traditional Classroom

Closure

Great job! You have just finished Lesson 4 of this module. If there are parts of the lesson which you need clarification, please ask your instructor during your face-to-face sessions.

Now, if you are ready, please proceed to Lesson 5 of this module, which will discuss distance learning. Kudos!

Lesson 5

Distance Learning

Learning Outcomes

At the end of the lesson, you should be able to:

- Describe what distance learning is and identify its advantages and disadvantages.
- Compare and contrast synchronous and asynchronous learning modalities.
- Identify what examples of distance learning platforms are.

Time Frame 2 days

Introduction

This lesson contains information on how learning is practiced using different modalities in distance learning. This lesson also provides a list of platforms that are used in distance learning. If you are excited to know them, let us start now!

Activity

Picture Analysis.

Instructions: Analyze the picture below and answer the questions provided.

1. 

What is/are being practiced in the picture?

_____

_____

_____

_____
_____

2. What do you think is/are the reason/s why we accommodate distance learning?

_____
_____
_____

3. What are some of the disadvantages and advantages you can point to form the picture?

_____
_____
_____

Analysis

- Can students learn via distance learning?

_____
_____
_____
_____

- What are the challenges we may encounter when we practice distance learning?

_____
_____
_____
_____
_____

- What are some of the platforms you know that helps in distance learning?

_____
_____
_____
_____
_____

- As a student who practices distance learning, what views can you share?

_____
_____
_____
_____

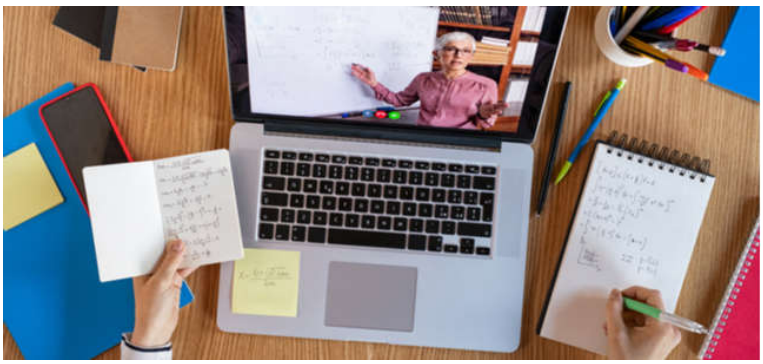
Abstraction

Distance learning is also known as *remote learning*, is a form of education wherein there is little or no face-to-face learning or what we call *residential learning* between the students and their teachers. Distance learning can be done anywhere, usually at home.

There are a lot of reasons why people choose or practice distance or remote learning. Here are some of the examples:

- **Borderless learning**. Students can enroll in programs being offered online by schools abroad.
- **Flexible schedule.** Students can choose to enroll in courses that fit their timetable.
- **Learners can save.** Because you can learn from your own home, you can save from transportation fees, allowances, and even books and other resources.
- **Self-paced learning.** Learners can accomplish their modules/tasks at a convenient time, pace, and whenever they are ready without being forced.
- **Numerous programs and course offerings.** There are a lot of programs and courses being offered by schools for distance learners. They have the same standards and quality as on-site learning.
- **Increase employability.** Since most of the schools that offer distance learning are well-known and provides quality education, earning certificates from the courses or programs finished by these institutions will give an advantage to your curriculum vitae and increase your chance to be employed.
- **Back up during calamities and emergencies.** Due to natural calamities and or health emergencies, learning institutions resort to distance learning to continue the education of the students when face-to-face or residential learning cannot be practiced.

Disadvantages of Distance Learning



- **High chances of distraction.** Students most likely to be distracted during distance learning since most of their homes are not suitable or conducive for learning. Losing

focus and losing track of deadlines is also a big problem since there are no teachers or students at their side to remind and motivate them.

- **Hidden costs.** Even if courses and programs offered in distance learning by schools are much cheaper than residential learning, there are some hidden costs involved. For example, buying gadgets, installing computers or internet routers, paying electricity bills, and others.
- **Access to technology.** Since most of the platforms in distance education require gadgets and digital tools, some students cannot access them due to the lack of these said gadgets. Students coming from the low-income sectors of the community don't have any access to devices needed for this type of learning.
- **Compromised quality.** Since distance education promotes self-paced learning, the quality of education can be compromised since individual students cannot exhibit some of the outcomes of the lessons. Some needed to be collaborative, and some required actual laboratory experience, and some needed the supervision of the instructors
- **Problems on the network.** Some areas have limited source of internet connection or network service. Since some of the activities in distance learning need to be done online, the difficulty will arise when there is no sufficient network signal or internet connection.
- **Production of materials and resources.** Learning institutions must prepare materials to be used in distance learning. Problems will arise if there is an emergency or a calamity wherein materials are not developed due to the nature of unpreparedness on the given situations.

Types of Distance Learning Modes

I. Synchronous Learning –instructor-facilitated learning that requires all the participants to be virtually present at the same time. Tests and other assessments are scheduled and timed. Learning using this modality can be conducted using:

a. ***Virtual classrooms*** **–** is an online environment wherein students and teachers can communicate, interact, view and present lessons and discussions, and actively engage with the learning resources available while teaming up or doing the tasks individually all in just one setting.

b. ***Web conferencing*** **–** is a service available online wherein teachers and students can conduct classes, conferences, meetings, training, and other activities virtually.

c. ***Educational televisions and radios*** **–** These are technologies that air and broadcast programs, lessons, and other educational stints to the general public. This is widely used in places that are experiencing calamities and emergencies such as volcanic eruptions and disease outbreaks.

d. ***Learning Management Systems (LMSs)*** **–** are online software applications used to deliver course materials, educational training, program development, and others.

II. **Asynchronous Learning –** self-directed and self-paced learning mode that does not require students to be virtually present. Learning using this modality can be conducted using:

   a. ***Modules* –** just like this material that you are using, modules are developed to help learners access education during distance learning without having the trouble to access the internet and buy gadgets. Modules include comprehensive lessons and activities that help achieve learning outcomes even if done using self-paced learning.
   b. ***Web-based courses* –** are uploaded courses and lessons on the internet. They can be accessed from the different programs or course offerings of learning institutions. Some of them are required to pay to be enrolled, while some are free.
   c. ***Video and audiotapes* –** These materials are pre-recorded copies of instructors giving discussions and presentations. This is useful to learners who have access to gadgets but don't have the freedom of time to join the scheduled meeting or don't have any sufficient access to the internet.

Distance Learning Platforms			
Quipper moodle schoology	Quipper, Moodle, and Schoology	Synchronous	These are the Learning Management System (LMS) used to give lessons, online quizzes, tests, and other activities.
Google Classroom e	Google Classroom and Edmodo	Synchronous	Serves as online virtual classrooms. Students can pass their works here and interact with each other.
ProQuest ebrary	Proquest and E-brary	Asynchronous	It is used to access e-books, online journals, and other online learning materials.

	Youtube	Asynchronous	It is used to provide pre-recorded lectures and other video references.
	Coursera, Udacity, and edX	Asynchronous	It is used to provide pre-recorded video lectures, online lessons and modules, and other references.
	Phet™ Interactive Simulations	Asynchronous	Used in science laboratory activity simulations.
	Zoom, FB messenger	Synchronous	It is used to conduct video chat, meetings, conferences, and online consultations.

Application

Reflective Journal

What made you choose modular learning over synchronous online learning?	Are you effectively learning using modular distance learning?
What distance learning platform would best suit you if you haven't chosen modular learning?	

Closure

Great work! Lesson 5 of this lesson you've just started. If you need clarification regarding parts of the experience, please ask your instructor during your face-to-face sessions.

If you're ready now, please proceed to this module's Lesson 6. Kudos, you guys!

Lesson 6

Relevance and Appropriateness in the use of Technology in Teaching and Learning

Learning Outcomes

At the end of the lesson, you should be able to:

- define what is instructional material;
- discuss the relevance and appropriateness in the use of technology in teaching and learning;
- explain the importance of the relevance and appropriateness in using technology in teaching;
- evaluate technologies and instructional materials used by teachers in teaching

Time Frame 2 days

Introduction

Hello and welcome to another lesson of this module! This lesson introduces the Relevance and Appropriateness in the use of Technology in Teaching and Learning. Technology can do so much in the teaching and learning process. It can enhance the teacher-student relationship, it helps the teaching and learning process fun and more engaging, and it facilitates collaboration to the students. However, some things need to be considered in using technology for it to be useful in the teaching and learning process. This lesson will help you have a better understanding of the use of technology in teaching and learning, which would greatly help you in future endeavors. So, what are you waiting for? Let’s buckle up and enjoy the lesson!

Activity

Think of a text book that you like the most and answer the following questions by filling out the blank.

Title of the book: _____

I like this book because:

_____

This book caught my interest because:

_____

This book suits me because:

_____

I can easily understand the book because:

_____

_____

_____

Analysis

After answering the activity above, you now have a rough idea about our lesson. But before we proceed to abstraction, consider the following questions below:

1. Why do you think it is essential for a teacher to have a deep understanding of how to utilize technology in the teaching and learning process appropriately?

   _____

   _____

   _____

   _____

2. Why do you think it is essential to consider the relevance and appropriateness of using technology in teaching?

   _____

   _____

_____
_____
_____

3. Why do you think instructional material is important for teachers?

_____
_____
_____
_____

4. The textbook is an example of instructional material. What do you think are the things that we need to consider in selecting instructional materials like books?

_____
_____
_____
_____

Abstraction

In teaching, it is vital to consider the relevance and appropriateness of using technology in teaching and learning. If we employ well-planned instructional strategies with relevant and appropriate technology and media, we prepare our students for 21st-century careers (Smaldino et al. 2014). Utilizing appropriate technology in the teaching and learning process is indispensable for us teachers. What works for one does not necessarily work for all. We need the right tool for the right job.

When talking about utilizing technology appropriately, we are not only talking about how to use technology appropriately but also, and we are talking about Instructional Technology. Instructional Technologies includes the instructional design process, which provides for analysis, design, development, evaluation, and implementation of instructional systems and other learning environments (https://uncw.edu/ed/mit/faq.html). It also includes the proper selection of instructional materials. Instructional material should constitute the appropriate utilization of technology.

But what is an instructional material? It is a device that aids the teacher in the teaching-learning process. They do not replace the teacher but aids the teacher. It can be traditional resources (e.g., textbook, workbooks, etc.), graphic organizers (e.g., graphs, charts, tables, etc.), teacher-made resources (e.g., handouts, worksheets, etc.), and other forms of instructional material (e.g., audio, audio-visual, electronic interactive, etc.). Since instructional material is indispensable for teachers, we need to select carefully.

What are the things that we need to consider in selecting instructional material based on appropriateness and feasibility?

1. The principle of appropriateness –
- Does it meet the standards (general and specific goals of the subject)?
- Is it appropriate to the intended level?

2. The principle of authenticity –
- Is the material accurate?
- Is the material up-to-date?
- Is the information of the material dependable?

3. The principle of cost (economy)
- Can the students afford the cost of the material?
- Does the cost equate the quality of the material?

4. The principle of interest
- Does the material catch the interest of the learners?
- Does the material stimulate students' curiosity?
- Does the material motivates the students?
- Does the material encourage creativity and imaginative response among users?

5. The principle of organization and balance
- Is it well organized and balanced?
- Is the purpose clearly stated?
- Is there a logical organization, clarity, and accordance with the principle of learning?

Application

Interview at least three (3) teachers (through text, messenger, email, and other means available) and ask the following questions below. Consolidate the data after the interview and make a conclusion and reflection based on the data collected.

1. Do you often use technology in teaching?
2. In your own opinion, why is it essential to utilize appropriate technology in the teaching and learning process?
3. Have you ever been on a dilemma in selecting which instructional material is best for the class? How do you solve that dilemma?
4. What are the factors that you always consider before selecting appropriate instructional material for the class?

Conclusion

_____
_____
_____
_____
_____

Reflection

_____
_____
_____
_____
_____

Closure

Well-done! I am so happy because you were able to answer the activities and tasks for this lesson. I'm sure that you have gained some insights and experiences from this lesson. Now you are ready to move on to the next part of this coursepack. Enjoy the lesson and keep up the excellent work!

Module Assessment

Read and answer the following questions. Encircle the letter of the correct answer.

1. Which of the following has highlighted Entrepreneurial literacy?
   A. Lisa thinks about investments yet has only a little knowledge on the subject.
   B. Carol has an active social networking user and is an influencer.

C. Phil makes sure that his family wellbeing is the top priority
D. John, though still in college, was able to gain profit on his investments and trades.

2. Which has shown Civic literacy?
   A. Lindsey, a homeowner, knows that she could not kick out her renters during the pandemic as the city government has ordered.
   B. Clint, knowing his rights to vote, went to the polling precinct despite having a contagious disease.
   C. Carlo, the Mayor's son, has shared information on COVID 19 positive cases in the city so to expose the infected and to build citizen's awareness.
   D. Both A and C

3. Environmental literacy is
   A. when you try to stop your neighbors to cut trees in their backyard since those are timbers
   B. when you burn your trash garbage to avoid litters and unnecessary rubbish
   C. when you educate others regarding the symbiotic relationship of humans and the environment
   D. either A or C

4. The following are the techniques in Gagne's first event, which is gaining attention which one is NOT?
   A. Teacher Beth has asked thought-provoking questions
   B. Teacher Allan has present meaningful challenges
   C. Teacher Kiera has exposed the benefits of the learning
   D. Teacher Andy has shared an intriguing problem

5. Which classroom assessment measured Bloom's cognitive learning at the Application level?
   A. Linda submitted her homework on revising an article on an editorial page.
   B. Carl has submitted his movie review output.
   C. Mira has connected the approach introduces by the teacher to her classroom experience.
   D. Paul has executed the proper handling of different utensils in a full course dinner.

6. It is a phase wherein the learner's knowledge of the content of the unit will be tested and the basis of teachers whether the lesson needs to be retaught or successfully transferred to the learner's cognition.
   A. Implementation
   B. Evaluation

C. Development
D. Design

7. Which of the following is **TRUE** about instructional technology?
   A. It only includes designing and evaluating the instructional system.
   B. It also includes properly selecting instructional materials.
   C. In instructional technology, only one instructional technology should be used for varied learners.
   D. None of the above.

8. The following are the questions that you need to consider in choosing appropriate instructional materials **EXCEPT**:
   A. Can we afford it?
   B. Does it meet the intended learning outcomes?
   C. Does the material increases motivation to the student?
   D. None of the above.

9. Which of the following statement is **INCORRECT** about instructional materials?
   A. It refers to anything that aids the teacher in the teaching-learning process.
   B. Instructional materials should constitute the proper utilization of technology.
   C. Trees, plants, and animals that are found outside the classroom are not considered as instructional materials.
   D. None of the above.

10. Teacher A wants to choose instructional material to use in his class. He considers using an audiovisual, for it promotes the general and specific goals of the topic. This is an example of _____.
    A. The principle of interest
    B. The principle of authenticity
    C. The principle of appropriateness
    D. The principle of organization and balance

11. Teacher B wants to utilize instructional technology in her class. What is the first thing that she should do?
    A. Implement an instructional system that is proven effective from other teachers.
    B. Evaluate her previous instructional system and integrate appropriate technology for improvement.
    C. Plan instructional strategy first to identify what appropriate technology is best for her class.
    D. Ask help from another teacher who is an expert on the subject.

12. Why is it so essential to incorporate 21st-century skills into the curriculum?
    A. Technology is already a massive part of our lives.
    B. Teaching these skills transforms students' understanding of content.
    C. Student achievement will be improved by teaching these skills.
    D. These skills are essential for authentic learning and to prepare the jobs of today and the future

13. What benefits can one get from ICT in education?
    A. This leads to added abilities for self-regulated learning
    B. May not help more disorganized learners who need more structure and routine available in a physical classroom setting. Better for those who can or at least keen to self-regulate their learning.
    C. Difficult to replicate settings such as lab activities that require hands-on, experiential learning
    D. Academic staff should spend more time in preparation of teaching materials.

14. What is the disadvantage of ICT?
    A. Encourage the individual study
    B. Provide educational activities in large geographical areas
    C. It is more expensive than traditional education
    D. Provide instruction according to student needs

15. Which expression is true?
    A. ICT does not create an authentic learning environment
    B. ICT provides a means of engagement to learning
    C. ICT does not provide an interactive learning environment
    D. with ICT teachers cannot create flexible teaching approaches

16. A _____ is when students individually watch lectures or video clips in preparation for completing activities/homework in class
    A. Blogging
    B. Flipped Classroom
    C. Grab-N-Go
    D. Curriculum Assessment Tools

17. Haiku, Moodle, Schoology, and Its Learning are all examples of:
    A. Screencasting
    B. Learning Management Systems
    C. Google Forms Add-Ons
    D. Chrome Extensions

18. Asynchronous student instructions for completing and turning in the assignment should include
    A. Detailed steps
    B. Answer documents for assignments
    C. Teacher office hours for assistance
    D. Grading policy

19. Asynchronous learning...
    A. Happens when students learn materials at the same time
    B. Involves learning in a virtual classroom like Google Meet
    C. Involves learning online
    D. Can be online and offline

20. In planning an asynchronous lesson, Which of the following is NOT included?
    A. Include clear and straightforward instructions
    B. Pitch assignments appropriately
    C. Consider differentiated learning materials
    D. Include live quizzes to monitor student's learning progress

MODULE SUMMARY

The key concepts covered in this lesson are:

- Literacy in the 21st Century is more than just reading and writing. It is about thinking and understanding. Students should develop a mix of skills with a specific emphasis on IT skills, knowledge management skills, and critical thinking skills**.** Successful teaching takes an integrated approach in 21st-century literacies, helping students understand how to access, analyze, synthesize, and respond to knowledge.

- Gaining multiple literacies is a must in this fast-changing world. As new knowledge unfolds, adaptability and innovation is a must. To be well-adjusted requires an in-depth understanding of essential concepts such as different instructional design models, which are beneficial to instructors, facilitators, educators, and more. Instructional design models are systematic processes crafted by seasoned experts on the field of instructions, which has created a blueprint of an organized and tried and tested pattern of the transference of content and knowledge to the learners of the different fields.

- Teaching becomes rewarding when students can demonstrate the skills and outcomes expected of them. Students learn and enhance their skills with the help of ICT tools in education. Type of learning also affects the experiences of the students in the classroom. It was presented that we have conventional learning wherein learning is constricted in the traditional classroom façade, and non-conventional learning is not constricted and can be practiced anywhere. Materials

or tools of the two types of learning were also identified to help us become equipped as teachers.

- The importance of distance learning was also emphasized together with its advantages and disadvantages. Distance learning can be done with the help of available platforms. Some are LMS, web conferencing, web-based lectures, and others.

- Always remember that in using technology in teaching and learning, it is essential to consider the relevance and appropriateness.

- Instructional material is a device that aids the teacher in the teaching-learning process.

- Instructional Technologies includes the instructional design process, which provides for analysis, design, development, evaluation, and implementation of instructional systems and other learning environments.

- In selecting instructional material, we need to consider the (1) principle of appropriateness, (2) principle of authenticity, (3) principle of cost, (4) principle of interest, and (5) principle of organization and balance.

Well done! You have completed the activities and tasks for Lesson 5. It is expected that you have gained sufficient knowledge and insight into distance learning. You are almost done with this module. The module summary will follow.

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Module 5

Innovative Technologies for Teaching-Learning and Assessment Task

Module Overview

The way of teaching is changing and updating every day—the traditional and old paradigm of education in not demanding anything now. So, we have equipped the classroom with new technology. It has an advantage.
– Josh Fleming-

Lessons in this Module

- ICT and Assessment in Learning
- Tools in evaluating appropriate assessment tools
- Technology Enhance Lesson using the ASSURE as technology-Integration Model

Hello and welcome to Module 5 of the course pack. In this module, I will be introducing you to the concepts about Innovative Technologies for Teaching-Learning and Assessment Task. Technological innovation contributes to a massive impact in education. There are many technological innovations today that aids in the teaching-learning process. Teachers employ innovative technology to improve the teaching-learning process, thereby improving student's academic performance. As a future teacher, your knowledge and skills in innovative technologies are indispensable. This module will help you equip with experience and expertise about innovative technologies, which will significantly help you in your future endeavors. Before we proceed to the lesson, be aware of the learning goals of this module.

At the completion of the module, you should be able to:

- define what is assessment;
- identify and explain the different types of assessment;
- gain a deeper understanding of the role of ICT in assessment;
- discuss the tools used in evaluating assessment tools;
- explain the different types of a portfolio;
- create your rubrics.
- Explain how the integration of technology enhances the learning experience.
- Provide examples of innovative technologies that enhance teaching-learning experiences.
- Develop an ASSURE-based lesson plan.

As you go along in this lesson, you are expected to give your full participation by answering all the activities provided in each lesson. You are also expected to have an initiative in researching additional information to widen your horizon about the topic.

So, are you ready for the lesson? Well then, let’s start the lesson now!

Lesson 1

ICT and Assessment in Learning

Learning Outcomes

At the end of the lesson, you should be able to:

- identify the different types of assessment;
- discuss basic concepts related to assessment;
- explain the concepts and roles of ICT in the assessment.

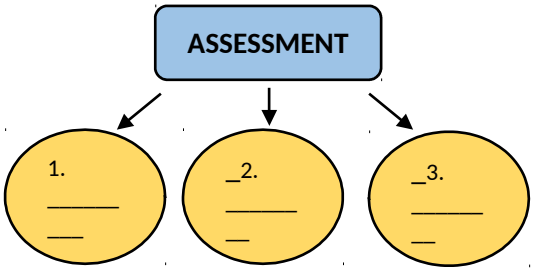
Time Frame 2 days

Introduction

Welcome to the first lesson in Module 5. This lesson introduces ICT and the Assessment of Learning. Assessment, teaching, and learning are all connected. When we talk about teaching and learning, we cannot get away with an evaluation. When you plan and conceptualize your teaching, you also need to plan on how to evaluate the learning of your students. The assessment gives the teacher valuable information on how much the students have learned so that the teacher can improve his/her teaching approach. Lesson 1 provides you with a better understanding of assessment and how you can integrate technology in assessment. So, let's buckle up and enjoy the lesson!

Activity

Complete the diagram by writing inside the circle three (3) words that that you think are related to assessment. Give a brief explanation why you think those words are related to assessment.



They are related to assessment because:

_____
_____
_____
_____
_____
_____

Analysis

After answering the activity above, you were now able to recall your previous knowledge about assessment. To deepen that knowledge, consider the following:

1. How do you define assessment?

   _____
   _____
   _____
   ___

2. Why do you think an assessment is essential in teaching and learning?

   _____
   _____
   _____
   ___

3. How are assessment and technology-related?

   _____
   _____
   _____
   ___

4. What are the roles of ICT in assessment in learning?

   _____
   _____
   _____
   ___

Abstraction

What is an assessment? According to Bilbao, P. et al. (2019), assessment is the process of identifying, gathering and interpreting information about students' learning. Why do we need to assess our students? We evaluate to collect data from them

about the status of their learning and then we make improvements to our teaching based on that information.

Types of Assessment:

1. **Formative Assessment**
   - It is done during the instructional process, while learning is ongoing.
   - It provides feedback while learning is ongoing.
   - The most typical example for this is impromptu quizzes

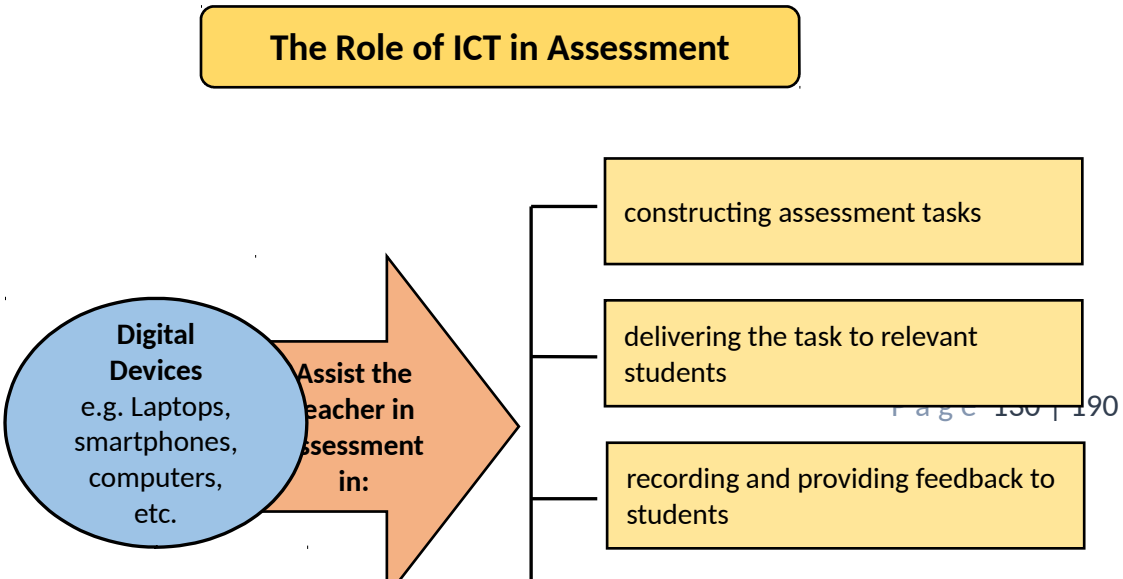
2. **Summative Assessment**
   - It provides feedback at the end of the grading period.
   - It is done after the learning is completed.
   - It aims to measure a student's academic achievement and learning.

3. **Diagnostic Assessment**
   - It aims to evaluate students' strengths and weaknesses on the subject.
   - It is given before the instruction occurs.
   - It helps the teacher how to plan on what to teach and how to teach.

4. **Authentic assessment**
   - It describes the different forms of assessment (activities) that teachers employ to reflect student learning, achievement, motivation, and attitudes on classroom activities (Bilbao, P. et al 2019).
   - It usually involves tasks that the students need to perform and is rated with rubrics.

The Role of ICT in Assessment in Learning

Some teachers are hesitant to integrate technology in assessment of learning. Technology plays a very important role in assessment. Today, technology offers many tools and applications that can be used in assessment to be more efficient and effective. See the diagram below to understand the role of technology in assessment.



computing and giving grades to students

Current Trends in Assessment in Learning

Traditional objective tests like multiple-choice and other paper-pencil tests received a great deal of criticism from the experts. Although they have some flaws, they are still widely used by teachers. However, recent trends in the assessment are expanding. The 21st-century assessment includes (Bilbao, P. et al. 2019):

1. Utilizing multiple measures in the assessment
2. Increasing the use of technology
3. Focus on the progress and development of the learner
4. Differentiating the roles and responsibilities of the teachers, administrators, and another stakeholder

Application

Read and answer the following questions.

1. During class discussion, Teacher A observed that her students are having a hard time understanding the lesson, but when she ask them, they would say that they understood the lesson. What should she do to confirm if the students understand the lesson and which part of the lesson they don't understand? Why do you say so?

   _____
   _____
   _____
   _____
   ____

2. In not more than four (4) sentences, explain what is the role of technology in the assessment? Cite specific examples.

   _____
   _____
   _____
   _____
   _____
   _____

3. As a future teacher, how are you going to integrate the 21st-century assessment in teaching? Cite specific examples.

_____
_____
_____
_____
_____

Closure

Well done! You have successfully answered the activities and tasks for this lesson. It is to be expected that you have learned a lot from this lesson. If there are some parts of the lesson that you don't understand, feel free to ask your instructor through text message, email, or other means of communication available.

If you are ready, please continue to the next lesson which will discuss the Tools in Evaluating Appropriate Assessment Tools. Enjoy the experience and have happy learning!

Lesson 2

Tools in Evaluating Appropriate Assessment Tools

Learning Outcomes

At the end of the lesson, you should be able to:

- identify the different assessment tools;
- discuss the things to consider in selecting appropriate assessment tools;
- explain the different types of a portfolio;
- create your rubrics.

Time Frame 2 days

Introduction

Hello and welcome to Lesson 2 of this module! This lesson talks about the Tools in Evaluating Assessment Tools. In assessing your students, there are many things that you need to consider. You need to select appropriate assessment tools to achieve your intended learning outcomes and competency for the lesson. This lesson will introduce you to the tools that will help you evaluate assessment tools, which is significant to help you in your future endeavor. Now, let's start the lesson with activity.

Activity

Read and answer the following questions below:

Give three (3) assessment tools used by one of your teachers. What do you think are the advantages and disadvantages of those tools?

Assessment tools	Advantages	Disadvantages
1.		
2.		
3.		

Analysis

After answering the activities above, you now have background knowledge about assessment tools. Before we proceed to the abstraction of the lesson, have a deep consideration first about the questions below:

1. How do you define the assessment tool?

   _____
   _____
   _____
   _____
   _____

2. Why are assessment tools necessary in education?

   _____
   _____
   _____
   _____

3. How do you evaluate these tools to select an appropriate assessment tool?

   _____
   _____
   _____
   _____
   _____

Abstraction

What is the assessment tool?

Assessment methods and tools are the strategies, techniques, tools, and instruments that the teachers used to collect information to determine if students have attained the desired learning outcomes and in the process, teachers select tools for assessment. However, in selecting appropriate assessment tools, it involves a process. You may consider the following characteristics in choosing an appropriate assessment tool, whether conventional or ICT-based assessment (Bilbao, P. et al. 2019):

1. **Measure the desired level of performance** – (*What level of proficiency and efficiency considered satisfactory from the student's performance?*)
2. **Cost-effective in terms of effort, time and money** – (*Is the tool feasible in terms of effort, time, and money?*)
3. **Useful that will produce results that provide information that can be used in making decisions to improve student learning** – (*Does the tool able to provide sufficient information in making decisions in enhancing student learning?*)
4. **Reasonably accurate and truthful – (***Is the tool accurate and true?*)
5. **Dependable, consistent responses over time** – (*Is the tool dependable and consistent in its information?*)
6. **Evidence of being on-going, not once and done**

There are tools that we can use to evaluate certain assessment tools. They are used to determine and scores the assessment tool. These tools are (Bilbao, P. et al. 2019).

1. **Rubrics** – they are sets of criteria used to determine the scoring of assignment, performance, and products from the students. It lets the students know what is expected of them to do before the activity starts. They are instrumental in rating research papers, projects, speeches, etc. but they cannot be used in grading multiple-choice tests. There are two (2) types of rubrics:

    a. **Analytic rubric** – this rubric describes each criterion separately from different criteria.

    b. **Holistic rubric** - it uses one scale that applies to all criteria which gives the overall score of the entire performance as a whole.

    How to Create a Rubric

    The steps on how to create Rubrics (https://health.usf.edu):

    1.1 Record the performance objective

    1.2 Identify the dimensions/tasks comprising the performance (***e.g., Speech mastery, voice quality, delivery, audience contact, etc.)***

    1.3 Identify the potential gradations of quality ***(e.g., poor, average, excellent***)

1.4 Assign a point value to each gradation, and a total point value for the assessment (***e.g., 3 points for excellent, 2 points for average, 1 point for poor, etc.***)

1.5 Identify the criteria for each level of quality within a dimension/task (***e.g., for excellent - The speech was delivered in a sophisticated manner; for average - the speech was delivered fairly effective, etc.***)

1.6 Create the rubric table

2. **Electronic Portfolio** – is a collection of student's product in an electronic format which was uploaded on the internet and is managed by the student as a user. There are three major types of e-portfolio, according to Eportfolio Resource Center - United States Department of Education:

   a. Developmental ePortfolio – (also called learning portfolios, reflection portfolios, formative portfolios, working portfolios) it is a self-reflection and self-assessment; focuses on the process and emphasizes reflection

   b. Showcase ePortfolio – (also called professional portfolios, formal portfolios, presentation portfolios, representational portfolios, career or employment portfolios) it showcases skills, experience, and achievement; portfolio as a product rather than process

   c. Assessment ePortfolio – it documents what the students have learned; used for both formative and summative assessment

Application

A. You surely have experienced making a portfolio before. Portfolio and ePortfolio are pretty much the same; in essence, they just mainly differ in the platform. Now, let's try to answer the questions below:

What are the advantages of ePortfolio? What are the technological tools that we can use in making the ePortfolio? What is the evidence to show student learning in ePortfolio?

Answer the questions by filling out the table below:

Advantages of ePortfolio	Technological tools we can use in ePortfolio	Evidence of student learning in ePortfolio
1.		
2.		

3.		
4.		
5.		

B. Create your own Analytical Rubric from a Role-play assessment applying the steps on how to create rubrics.

Analytical Rubric for Role-play

Criteria	**Excellent (3 points)**	**Average (2 points)**	**Poor (1 point)**	**Score**
1.				
2.				
3.				
4.				
5.				

Closure

Job well done! You have successfully answered the activities and tasks for this lesson. I know that you have learned a lot from this lesson. If you still have questions for this lesson, you are free to ask me and I would gladly answer those questions to the best of my ability.

If you are ready, please proceed to the next lesson which will discuss Technology Enhances Lesson using the ASSURE as Technology-Integration Model. Enjoy the lesson and have a good day!

Lesson 3

Technology Enhances Lesson using the ASSURE as Technology-Integration Model

Learning Outcomes

At the end of the lesson, you should be able to:

- Explain how the integration of technology enhances the learning experience.
- Provide examples of innovative technologies that enhance teaching-learning experiences.
- Develop an ASSURE-based lesson plan.

Time Frame 2 days

Introduction

This lesson will teach you how to apply the ASSURE model in crafting your lesson and apply this to enhance teaching-learning experiences using innovative technologies.

Activity

Thought bubble. Why do you think technology is essential in education?

Analysis

- Does technology play a significant role in learning?
- What are some of the technologies used in your classes before that you find useful?
- Is the innovation of technologies relevant to education?
- As a future teacher, would you apply the use and integration of technology in your future classes?

Abstraction

Teaching in a modern classroom is a big challenge. Gone are the days that teachers are the only source of knowledge and information in the classroom. Teaching in the 21st century is both a challenge and ease. **But what is the integration of technology in education?**

Technology integration in education is the incorporation of present technologies as an aid in the teaching-learning process. Technology can be

integrated into our lessons to promote learning, motivation, collaboration, critical thinking, communication, and others.

Why is it essential to integrate technology into education?

According to the National Education Association (NEA), teachers in the 21st century integrate technology in their classrooms to have their students gain and enhance these four skills, also known as fours C's.

- ✓ **C**reativity.
- ✓ **C**ritical thinking.
- ✓ **C**ommunication.
- ✓ **C**ollaboration.

Here are some of the innovative technologies used in education:

1. ***Virtual Reality*** **(VR)** –

VRs are used to simulate virtual and or augmented realities. It promotes motivation in learning since students can explore in different environments and conduct experiments freely utilizing this technology. VRs are used mainly in sciences, engineering, mathematics, and others.

2. ***Artificial Intelligence*** **(AI)** –

AIs are commonly used in schools that incorporate robotics in their curriculum. AIs can perform assistant functions such as Siri, Alexa, Google Assistant, and others. They help in assisting students in searching for information, deliver support services, aid in data processing, and many more.

3. ***Cloud Computing*** –

Cloud computing is a storage system that helps teachers and students in accessing their files, uploading works, access other devices, and control remotely other

machines in the presence of the internet. It has no limit in storage and can be accessed anytime, as long as there is a connection.

4. ***3D Printing*** –

It is a modern technology used in schools to create 3D models of something by printing it. It can be historical artifacts in history class, DNA strand in biology, 3D manipulatives in math, and other useful models to aid in teaching and learning.

5. ***Biometrics*** –

Biometrics is used nowadays in schools to record students' attendance for safety. Once the students are in the school and access their attendance in biometrics, a message will be sent to the parents giving them notice. Teachers also use these data to monitor attendance in classes.

ASSURE – Based Lesson Plan Sample

Subject: English
Topic: Yesterday and Today
Subtopic: Grammar (nouns)
Year: 4 UM
Age Group: 10 years old.
Time: 30 minutes
Date: 14th February 2014

General Characteristic

This lesson is prepared for students in a year 4 class. This class has a population of 35 students. There are 12 boys and 15 girls in the class. The students generally enjoy learning English. 80% of the students in this class have come from average family backgrounds. Most of their parents are settlers. Learning styles in this class vary from auditory to visual and also kinetic. Students have difficulty maintaining focus during the

course. To overcome this issue, lessons must be tailored to accommodate the students' attention span. Learning styles in this class vary from auditory to visual and also kinetic.

Entry competencies

Students should be able to identify suitable determiners for singular and plural nouns.

Learning Styles

Students learning styles vary from auditory to visual and also kinetic learners. To ensure that the students learn, each style must be considered. There is no recommended text for this class.

Objectives:

Students should be able to:

Cognitive - Identify the singular and plural nouns.
Psychomotor - Distinguish the differences between regular and irregular plural nouns.
Affective - Change the singular nouns to plural nouns.

Selected Media, Materials, and Methods

Projector: The teacher will use the projector to allow the students to view the examples of singular and plural nouns.

Speakers: With the aid of speakers, the students will be able to hear the clip. The speakers will enhance their learning experience.

Marker Pen: This will be used to write on the whiteboard

Whiteboard: Students' activity on the board.

Computer: A computer will be used to run slides on the overhead projector.

Utilize Media and Material

Preview the Materials: The teacher previews the textbook and reference books for the activity to ensure that the activities and worksheets are useful for the lesson.

Preview the Materials

The teacher will listen to the clip, ensuring that the video is working and the audio is clear. The teacher will also ensure that the speakers are working as well. The teacher will test the overhead projector and the computer, ensuring their compatibility.

Prepare the Materials

The teacher will set up the computer and overhead projector before the class. These pieces of equipment will then be turned on and tested.

Prepare the Environment

The seating will be arranged so that all students will have a clear view of the projection. The speakers will be placed in an area where all the students will be able to hear the story.

Prepare the Learners

The teacher will inform the students about the activities planned before the class. The students will also be informed of the evaluation exercises that they will be given at the end of the class. By doing this, the students will be comfortable when the course begins.

Provide the Learning Experience

The teacher will ask the pupils to name the things that they can find in a stationery shop. The teacher writes pupils respond on the board by using mind mapping. Then the teacher shows some examples of singular and plural nouns with PowerPoint presentations. The students will be placed into groups where they will view and listen to the clip. They will then be asked to identify the singular and plural nouns found in the grocery shop that they know. The clip will be used to introduce the topic. Students will then discuss the nouns, and the teacher will write them on the whiteboard. Students will then be given a worksheet to complete. Students will change the singular to plural nouns in groups. The teacher will then call on different groups to give their answers. The teacher will indicate which answers are correct.

Require Learner Participation

Students will be placed into groups to complete the worksheet. Students will discuss amongst themselves the changes of singular to plural nouns. Each group will have a group leader who will answer when the teacher calls on the group.

Evaluate and Revise

Students will be asked to come to the board and make the singular nouns into plural. The students are the leaders of each group. The correct answer will be given a reward.

Application

- Develop an ASSURE – using the previous lesson plan you made in module 3; Lesson 3 tries to incorporate the use of innovative technologies presented in our lesson above.

- Attach your developed lesson plan at the end of this module.

Well done! You have completed the activities and tasks for Lesson 3. It is expected that you have gained sufficient knowledge and insight on Technology Enhances lessons using the ASSURE as technology-Integration Model. You are almost done with this module. The module summary will follow.

Module Assessment

Read and answer the following questions. Encircle the letter of the correct answer.

1. The following statement about the role of ICT in Assessment is/are true **EXCEPT**:

I. ICT allows flexibility to assess.
II. ICT completely eliminates cheating during an assessment.
III. ICT is essential in assessment to improve instruction.
IV. ICT enables the teacher to give feedback to students right away.

A. I only
B. II only
C. I and II
D. III and IV

2. Which of the following statement about assessment is/are **TRUE**?

I. Assessment should be meaningful for students.
II. Assessment should also measure the affective domain.
III. Oral-recitation during the instructional process is not considered as assessment.
IV. Assessment includes interpreting the scores of the test.

A. I and II
B. III and IV
C. I, II, and IV
D. I, II, III, and IV

3. Teacher A uses Multiple Choice after every Unit of the lesson. What do you call this assessment?

A. Formative Assessment
B. Summative Assessment
C. Diagnostic Assessment
D. Authentic Assessment

4. Teacher B wants to make a 21st-century assessment for her class. What should she avoid?

A. Consider using an online exam system for assessment to save costs from printing.
B. Choose only one type of assessment to save time and effort in preparing.
C. Make sure that the test contributes to the growth and development of the students.
D. None of the above

5. The following are the reasons why a teacher should integrate ICT in assessment **EXCEPT**:

A. ICT increases the efficiency of learning and evaluation.
B. ICT can help teachers by storing and recording information on students' progress.
C. Because of ICT, teachers can focus on other aspects of supportive learning.
D. None of the above

6. Which of the following statement is **INCORRECT** about ePortfolio?

A. It contains students' reflections that discuss how they were able to accomplish the task and what they have learned.
B. It is only limited to formative assessment results.
C. In terms of required outputs, it is essentially similar to the physical portfolio, although digital materials are uploaded in ePortfolio.
D. None of the above

7. Which of the following statement is **DISAGREEABLE** in the portfolio?

A. Portfolios should come only in one form.
B. Refection is the most crucial element in the portfolio.
C. Portfolios are a suitable means of keeping things in order.
D. None of the above

8. Teacher A explains clearly to her students about her expectations of the students' essay. She told them that to attain Outstanding Rating; their essay should have a good introduction, unique style, well-organized content, and well-constructed sentences with no grammatical errors. This is an example of _____.

A. Scoring Rubric
B. Criterion-referenced testing
C. Normative grading
D. Performance Criterion

9. The following statement is true about Rubrics **EXCEPT**:

A. They can be time-consuming to prepare.
B. Rubrics are useless at the elementary level.
C. Rubrics shows exactly how performance is weighted.
D. Students can double-check their performance from the standard.

10. Teacher B requires his student to make an ePortfolio. He instructed his student to upload all their exams, quizzes, and activities from the start to the end of the semester and make a reflection from it. This is an example of _____.

A. Learning ePortfolio
B. Showcase ePortfolio
C. Evaluation ePortfolio
D. Documentation ePortfolio

11. How do we encourage students to be actively involved in their learning?
    A. Incorporate questions and answers
    B. Include hands-on activities
    C. Incorporate group work and discussions
    D. All of the above

12. Which step below is NOT included in utilizing media, materials, and methods?
    A. Preview Materials
    B. Prepare the learners
    C. Provide learning experiences
    D. Prepare rewards

13. When you determine the character of the learners, it will guide you in:
    A. choosing specific strategies and resources to aid the learning process
    B. choosing specific outcomes and resources to support the learning process
    C. adopting specific strategies and Standards to help the learning process
    D. choosing specific outcomes and Standards to aid the learning process

14. The assure model is:
    A. A systematic approach to write lesson plans
    B. A systematic approach to write lesson plans
    C. A systematic approach to write lesson plans
    D. A systematic approach to write lesson plans

15. Provide feedback is related to:
    A. Require learner participation step
    B. Evaluate step
    C. State objectives step
    D. Analyze the learner step

MODULE SUMMARY

Congratulations on completing the module about the Innovative Technologies for Teaching-Learning and Assessment Task. The key concepts covered in this module are:

- Assessment is the process of identifying, gathering and interpreting information about students' learning.
- There are four types of assessment which are: (1) Formative assessment - which is done during the instructional process while learning is ongoing; (2) Summative assessment - which is done after the learning is completed; (3) Diagnostic assessment – which is given before the instruction occurs; and (4) Authentic assessment – which usually involves tasks that the students need to perform.

- The role of ICT in assessment is to assist the teacher in constructing assessment tasks, delivering the task to relevant students, recording and providing feedback to students, and in computing and giving grades to students.
- Teachers need to employ the current trends in assessment in learning. You should not be contented in a traditional objective test. Instead, you should explore and utilize 21st-century evaluation in teaching.
- Assessment methods and tools are the strategies, techniques, tools, and instruments that the teachers used to collect information to determine if students have attained the desired learning outcomes.
- Rubrics are sets of criteria used to determine the scoring of assignment, performance, and products from the students.
- There are two types of rubrics which are: (1) Analytic Rubric - in which it describes each criterion separately from different criteria; and (2) Holistic Rubric – in which it uses one scale that applies to all criteria of the entire performance.
- Eportfolio is a collection of student's product in an electronic format which was uploaded on the internet.
- There are three major types of e-portfolio: (1) Developmental ePortfolio - also called learning ePortfolio; (2) Showcase ePortfolio - also called employment ePortfolio; and (3) Assessment ePortfolio - used for formative and summative assessment.

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Module 6

Social, Ethical and Legal Responsibilities in the Use of Technology Tools and Resources

Module Overview

'Modern technology has become a total phenomenon for civilization, the defining force of a new social order in which efficiency is no longer an option but a necessity imposed on all human activity.'
– Jacques Ellul-

Lessons in this Module

- Digital Citizenship
- Intellectual Property Rights Applicable to the Educational Setting: Copyright and Related Rights Copyright Law

Welcome to Module 6!

Since technology has become an integral part of our lives, whether we like it or not, we have become prone to safety issues. For that, we will go into the realm of our consciousness of demonstrating social, ethical, and legal responsibilities in the use of technology tools and resources.

At the end of this module, you must be able to:

- Describe the community of learners as citizens who share and utilize digital materials;
- Identify examples of Intellectual Property right in the educational setting; and
- Demonstrate social, ethical, and legal responsibilities in the use of technology tools and resources.
- Cite different educational sites and portals that are useful in various content areas; and
- Connect with different online learning communities and resources.
- Collaborate with stakeholders in the development of ICT-based teaching and learning materials;
- Familiarize oneself with various technology tools; and
- Develop own teaching and learning materials with the use of technology tools.

You are ready for the session, then? Well then, now let's start the lesson!

Lesson 1

Digital Citizenship vs. Global Citizenship

Learning Outcomes

At the end of the lesson you are expected to:

- Describe the five tenets of global digital citizenship and the nine elements of digital citizenship; and
- Compare and contrast one's role as a citizen of a community and that of the digital world.

Time Frame 3 days

Introduction

Welcome to Lesson 1! This is quite exciting! By complying with the activities, you will discover a whole new world of perspective being a citizen of this country and that of the virtual society. Have fun!

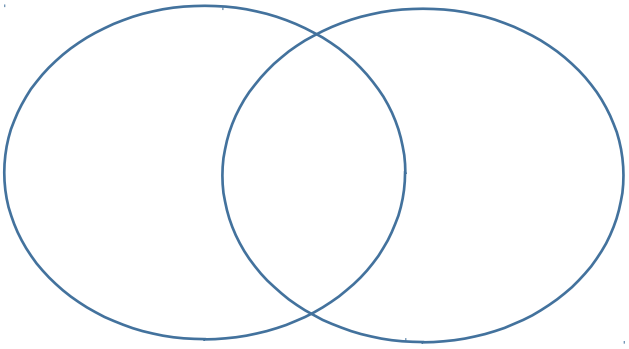
Activity

As a Filipino citizen, you are endowed with rights and responsibilities. Wherever you are situated, whether, in a metropolis or a barangay, you always carry with you what you ought to do, in this digital age, by using the Internet, you have also become a member of a cyberspace community. In that note, are you aware of what your rights and responsibilities are as an Internet user?

To facilitate this awe-inspiring journey, fill out the Venn diagram for your answer.

My Rights and Responsibilities

As a Filipino Citizen As Internet User



Source: Bilbao et al. (2019). Technology for Teaching and Learning 1, p. 177.

Look at your answers in each circle. For similar ones, put them in the center.

For different ones, keep them in their circle. Chat to a friend or two. Share your answers to them. Listen also from their sharing.

You may opt to do one of the following:

1. If you have access to computers and the Internet, create your Venn diagram in any Venn diagram maker such as https://www.meta-chart.com/venn or https://www.canva.com/graphs/venn-giagrams/ and upload your output to your ePortfolio.
2. If none, design your Venn diagram on a piece of bond paper, photograph it, and send it to your group FB page. Let your classmates comment on it. Feel free to see their Venn diagram and make comments too.
3. If the first and second may not work for you, compile the Venn diagram that you have created as evidence of your activity just in case you may be asked to submit a regular portfolio at the end of this course.

Analysis

What does it mean to be a digital citizen? How can you observe social, ethical, and legal responsibilities in the use of technology tools and resources?

You need to chat with two of your other classmates and discuss your views about the questions. Fill out the three-column organizer for your views and the views of your chatmates.

Questions	Your Views	Your Chatmate A	Your Chatmate B
1. What does it mean to be a digital citizen?			
2. How can you observe social, ethical, and legal responsibilities in the use of technology tools and resources?			

You may opt to do one of the following:

1. If you are connected online, create a blog entry that you have learned from the sharing with two of your chatmates using www.wordpress.org and post it. Read also the posts of your classmates and comment on their ideas constructively.

2. If you cannot do number 1, post the synthesis from your sharing in your group FB page. Read also the posts of your classmates and comment on their ideas constructively.

3. If the first and second may not work for you, compile the article that you have synthesized as evidence of your activity just in case you may be asked to submit a regular portfolio at the end of this course.

Abstraction

How do you describe a good citizen? How do you define a good digital citizen? Is there much difference between the two? Take a look at the infographic below and find the answers for yourself.

CITIZENSHIP IN THE DIGITAL AG Source: www.iste.org

A good citizen…	An excellent digital citizen…
1. Advocates for equal human rights for all.	Advocates for equal digital rights and access for all. ***Five million school-age children do not have internet access at home.***
2. Treats others with respect.	Seeks to understand all perspectives. ***91% of surveyed Gen Z youth use technology to gain perspective on people different from themselves.***
3. Does not steal or damage others' property.	Respects digital privacy, intellectual property, and other rights of people online. ***80% of UK students believe knowing about intellectual property rights is essential for their future careers.***
4. Communicates clearly, respectfully and with empathy.	Communicates and acts with empathy for others' humanity via digital channels. ***88% of teens who use social media have witnessed other people being cruel online.***
5. Speaks honestly and doesn't repeat unsubstantiated rumors.	Applies critical thinking to all online sources and doesn't share noncredible resources, including fake news or advertisements. ***80% of students mistake "sponsored content" ads for legit news.***
6. Works to make the world a better place.	Leverages technology to advocate for and advance social causes. ***77% of students share social or environmental information with social networks.***
7. Protects self and others from harm.	It is mindful of physical, emotional, and mental health while using digital tools. ***94% of teen drivers acknowledge the dangers of***

	texting and driving, but 35% admitted to doing it anyway.
8. Teams up with others on community projects.	Leverages technological tools to collaborate with others. ***80% of Gen Z students like to study with friends, and 52% like to help their friends learn.***
9. Projects a positive self-image at all times.	Understands the permanence of the digital world and proactively manages the digital identity. ***33% of all college students digital footprints and 47% of students say they do everything they can to protect their digital identity.***

As you can see, the infographic says it all. A **global citizen** *understands the interrelatedness of everything to everything else* (https://urlshort.host/Ltp1d). With that note, a **global citizen** is one who sees the world as a community, possesses the ability to comprehend actions that contribute to the value of the world as a whole and one who is concerned about how one could participate and contribute for the benefit of the whole world while a **digital citizen** is an individual who adheres to the guidelines related to the ethical and responsible use of technology. That person also knows how to act responsibly in all relationships and interactions in the digital world **(Debroy, 2019).**

Thus, when both the attributes of a global citizen and a digital citizen are mixed, the identity of a **global digital citizen** is justified in totality. Hence, a **global digital citizen** is an empowered individual who is dutifully aware of his/her responsibility both for the power of the Internet and for the lasting well-being of our global community **(Watanabe-Crocket, 2017).**

The 5 Tenets of Global Digital Citizenship (Watanabe-Crocket, 2017)

https://urlshort.host/nj64O

1. **Personal Responsibility:** *This has something to do with how one behaves in matters as ethical and moral considerations, finance, interpersonal relationships and personal health and fitness – both in virtual and physical communities.*
2. **Global Citizenship:** *This is about recognizing and respecting diversity in terms of appreciation of many concerns, cultures, religions, traditions, and values of their fellow global citizens.*
3. **Digital Citizenship:** *It centers on safe and respectful behavior in any online environment by fixing a correct program of digital ethics and best practices for all.*

Also, it is more of eliciting respect and responsibility for yourself, for others, and a property of every definition.

4. **Altruistic Service:** *This means a concern for the well-being of the people with whom we share our world, and a desire to serve others by acting out of compassion and recognizing that interconnectedness to others is vital.*

5. **Environmental Stewardship:** *This is all about the demonstration of common-sense values and of an appreciation for the beauty and majesty that surrounds us every day, that after all, we only have one world to live in, and it is our responsibility to preserve it for future generations as global citizens.*

As his/her hallmark, global digital citizens must: **(Watanabe-Crocket, 2017).**

- ✓ *Always be virtuous and act with integrity in all digital and non-digital communications and interactions.*
- ✓ *Always communicate using the appropriate language.*
- ✓ *Choose and uphold their social responsibilities.*
- ✓ *Being responsible for any online activity and accountable for his/her digital footprint.*
- ✓ *Being dutiful to judge what is appropriate and ethical behavior within the laws of the land.*

Exploring the Nine Elements of Digital Citizenship

We are in a world where digital resources are everywhere. This is a reason that giving importance to technology in education extends to all aspects of a student's life. The International Society for Technology in Education (ISTE) outlines nine elements of digital citizenship to help students navigate online resources: (https://bit.ly/3jaNwDE)

1. **Digital Access.** *With the use of technology, you can facilitate helping other students from disadvantaged communities and teach them how to find valuable and safe information on the Internet.*

2. **Digital Etiquette.** *This is concerning considering every digital user with respect and avoiding inappropriate conduct and demonstrating the essential virtual manner, which is being aware of the outcome of cyberbullying.*

3. **Digital Commerce.** *This refers to selling and buying in the digital market dutifully. This is also to facilitate how students learn to be better consumers or consider career paths related to digital sales.*

4. **Digital Rights and Responsibilities.** *It is just like freedom of speech that all students have as a privilege while using the internet and making sure that these rights remain available for everyone by treating other users fairly and respecting their privacy.*

5. **Digital Literacy.** *This refers to teaching Internet skills in class to help bridge gaps in digital literacy, and by doing so, students will display the ability to learn how to use technology and access information online.*

6. **Digital Law.** *This encompasses guidelines, policies, and rules set by an organization for using the Internet, such as preventing plagiarism and putting phones away in class.*

7. **Digital Communication.** *This has something to do with the importance of teaching students to communicate safely and effectively online - text, email, social media, and online games.*

8. **Digital Health and Wellness.** *These are proper practices in the use of the Internet – sitting correctly and avoiding too much screen time to make students protect their psychological and physical well-being.*

9. **Digital Security.** *This is to ensure Internet safety lessons for children, which could include anything from why privacy online is important to what to do if they encounter a cyberbully and the need to know how to avoid viruses, scams, or strangers online.*

Application_

Explore the virtual world and experience what it is to be a digital citizen. Log in to your social media site and survey as to how many of your friends are observing or not observing digital citizenship responsibly. Share your observations with your classmates in your group FB page.

Closure_

Congratulations on the job well done! Get ready for your next lesson, which is about Intellectual Property Rights Applicable to the Educational Setting: Copyright and Related Rights Copyright Law. Good luck!

Lesson 2

Intellectual Property Rights Applicable to the Educational Setting: Copyright and Related Rights Copyright Law

Learning Outcomes

At the end of the lesson you are expected to:

- Identify examples of Intellectual Property Rights in an educational setting;
- Define the copyright laws;

Time Frame 3 days

Introduction

Welcome to Lesson 2! You are still fresh from your journey towards digital citizenship, and it just time that you proceed right away to the norms and laws concerning your life as a global digital citizen. Get ready to log in to Intellectual Property Rights Applicable to the Educational Setting - Copyright and Related Rights Copyright Law

Activity

Inside the box is an icon with a powerful statement about plagiarism. Do you agree with it? Why? Why not? Write 3-5 sentences of your thoughts about the statement.

https://urlshort.host/k33c7

You may opt to do one of the following:

1. Post in your group FB page what you have written on your metacard. Read also the posts of your classmates and comment on their ideas constructively.

2. If the first may not work for you, compile the meta card that you made as evidence of your activity just in case you may be asked to submit a regular portfolio at the end of this course.

Analysis

According to research and surveys conducted by Dr. Donald McCabe and the International Center for Academic Integrity, the number of university students who admit to cheating in some form is truly eye-opening.

A survey of over 63,700 US undergraduate and 9,250 graduate students over the course of three years (2002-2005)--conducted by Donald McCabe, Rutgers University--revealed the following:

- 36% of undergraduates admit to "paraphrasing/copying few sentences from Internet source without footnoting it."
  - 24% of graduate students self report doing the same
- 38% admit to "paraphrasing/copying few sentences from written source without footnoting it."
  - 25% of graduate students self report doing the same
- 14% of students admit to "fabricating/falsifying a bibliography"
  - 7% of graduate students self report doing the same
- 7% self report copying materials "almost word for word from a written source without citation."
  - 4% of graduate students self report doing the same
- 7% self report "turning in work done by another."
  - 3% of graduate students self report doing the same
- 3% report "obtaining paper from term paper mill."
  - 2% of graduate students report doing so

https://urlshort.host/kNXcG

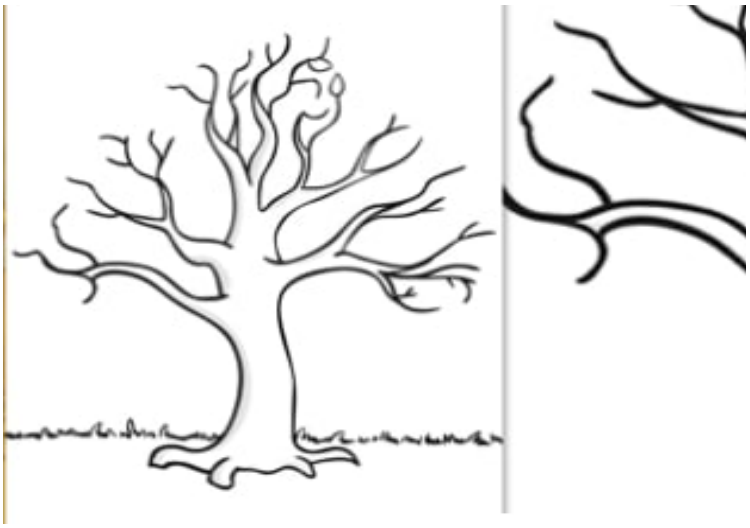
The Problem Tree

Let us represent the roots of the tree as the root causes of plagiarism and cheating; the trunk as the problem/s; and the branches as effects. *What do you think are the root*

causes of plagiarism that lead to its problems and outcomes? Write as many as you can think of. (Of course, you can draw your tree.)

You may opt to do one of the following:

1. If you are connected online, You can post your problem tree analysis on your ePortfolio.
2. If you cannot do number 1, post your output in your group FB page. Read also the posts of your classmates and comment on their ideas constructively.
3. If the first and second may not work for you, compile the output that you have made as evidence of your activity just in case you may be asked to submit a regular portfolio at the end of this course.



https://urlshort.host/1nHHR

Abstraction

Intellectual Property Rights

Intellectual property rights refer to the exclusive rights of the creator over the use of his/her creation for a specified period (https://urlshort.host/5ickH).

The **World Trade Organization (WTO)** customarily divides intellectual property rights into two main areas:

1) **Copyright and rights related to copyright.** For a minimum period of 50 years after the death of the author, the rights of literary and artistic works *(such as books and other writings, computer programs, films, musical compositions, paintings, and sculptures) are protected by copyright.*

https://urlshort.host/iGNcN

This aims to ***encourage and reward creative work.***

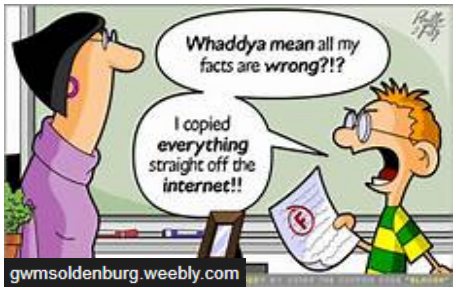
Under this, the rights of the performers – actors, singers and musicians, producers of sound recordings, and broadcasting organizations are also being protected.

2) **Industrial property.** This can usefully be divided into two main areas:

   a. *One is about the protection of unique signs: 1)trademarks, and 2) geographical indications. The first is to differentiate one undertaking from other undertakings. In contrast, the second one gives attribution to the good as coming from a place and indicating characteristics necessarily that of the geographical origin.*
   b. *Another one is primarily protected from inspiring design, creation, and innovation. This is about the protected patents for fall inventions, industrial designs, and trade secrets.*

Copyright Infringement

Aside from a violation of someone's intellectual property (IP), **copyright infringement** is piracy or the theft of someone's original creation **(https://urlshort.host/iGNcN).**



The use of Internet materials without proper citation is not exempted from copyright infringement. It is a fact that the Internet has become the foremost medium to gather information for any purpose and plagiarism has become common, with its increasing popularity. People think that just because the information is available for free, it can be copied. However, this is not true. In the same way that books have copyright, materials published on the Internet are also protected by specific copyright laws, which prohibit the readers or whoever accesses the Internet from plagiarizing the content **(https://urlshort.host/mm6Nc).**

Below are the guidelines on online use of copyrighted materials**: (Smaldino, Lowther and Russel, 2012 in Bilbao et al., 2019)**

1. Contrary to popular opinion, all materials on the Internet are copyrighted unless stated otherwise. It is copyrighted even if it does not display the copyright symbol.

2. Copyright laws cover an email. For its originality, one cannot just use it or share it. Hence it is recommended that you should not forward any email without permission, in consideration of both the copyright and Privacy Act.
3. Making copies of articles from a newspaper's website and distributing them to your students before the class discussion on the topic is permissible following the current photocopying guidelines, which permit making multiple copies for classroom use. However, individually bylined and copyrighted articles cannot be copied legally for class distribution (adapted from Becker 2003).
4. You cannot post students' essays, poems, or other works on the school website unless you have permission from the students and their parents or guardian.
5. Educators should treat copyrighted materials from the Internet the same way as they do to print formats/ the best guideline is always to obtain permission. When in doubt, ask!

Copyright Infringement vs. Plagiarism

Earlier, we talked about plagiarism. Take note that plagiarism and copyright infringement are related ideas; however, these two are different. Plagiarism is an act of fraud, involving both stealing someone else's work and lying about it afterward.

Bilbao et al. (2019) cited the following as plagiarism as detailed by Plagiarism.org:

1. *Making someone else's work as your own*
2. *Using ideas from someone else without giving credit*
3. *Failure to put a quotation in quotation marks*
4. *Citing incorrect information about the source of a quotation*
5. *Altering words but retaining the sentence structure of a source without giving credit*
6. *Using so many words or ideas from a source that it makes up the majority of your work, whether you give credit or not ("fair use" rules)*

On the other hand, for images, videos, and music, the following fall under plagiarism:

1. *Using media (especially images) from other websites to paste them into your papers or websites*
2. *Creating a video using footage from others' videos or using copyrighted music as part of the soundtrack*
3. *Playing another person's copyrighted music into a performance(i.e., playing a cover)*
4. *Creating a piece of music that borrows heavily from another composition*

These are forms of plagiarism. How do we relate them with copyright infringement? Plagiarism is a failure in citing the source, while copyright infringement is a failure to obtain permission. In other words, copyright infringement in violation of the rights of the copyright holder. Take note also that not all authors have the copyright for their article. There are cases that the publisher is the one holding the copyright. To sum it all, copyright infringement is a legal violation, while plagiarism is an ethical violation **(Bilbao et al., 2019).**

Application

Take the following exercises step-by-step:

Step 1. Get one of your previous writing projects with a lot of internet materials. Go over them and reflect on how many of those materials you have failed to give proper attribution.

Step 2. Think about how you would feel if someone else does the same thing as you did to your own published internet material.

Step 3. Now write your reflection following the guide questions.

Guide Questions:

1. What have you learned about the lessons on intellectual property rights?
2. What are your realizations after going through a self-plagiarism check?
3. What do you think are the consequences should a person violate copyright laws?
4. Cite your insights on how you can prevent yourself from copyright infringement and plagiarism.

My Personal Insights on Avoiding Copyright Infringement and Plagiarism

You may opt to do one of the following:

1. If you are connected online, You can post your reflection on your ePortfolio.
2. If you cannot do number 1, post your output in your group FB page. Read also the posts of your classmates and comment on their ideas constructively.
3. If the first and second may not work for you, compile the output that you have made as evidence of your activity just in case you may be asked to submit a regular portfolio at the end of this course.

Closure_

Congratulations once again! You are two lessons down already! Now get ready for the next one, which is about Netizenship and Netiquette. This is quite interesting because this also pertains to you as one of the netizens. Break a leg!

Lesson 3

Netizens and Netiquette

Learning Outcomes

At the end of the lesson you are expected to:

- Describe the community of learners as netizens who share and utilize digital materials;
- Practice standard netiquette in sharing and utilizing shared materials among learning communities; and
- Create a campaign video to promote netiquette.

Time Frame 3 days

Introduction

Welcome to Lesson 3! This is quite timely, especially in your engagement in the web as a global digital citizen – being so, you are also a netizen with expected proper netiquette. Isn't that exciting!

Activity

Read this case below and analyze the side of both parties. After that, proceed far below and do some creative activity.

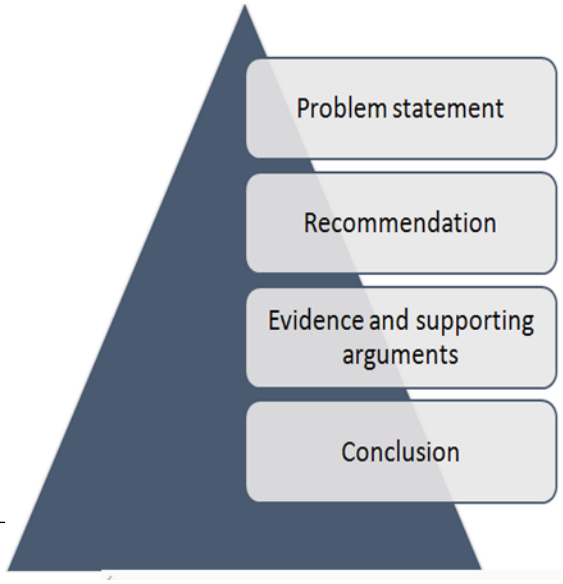
The case involved two students from a certain school whose photos were posted on Facebook. The photos, which were uploaded by one of their friends, showed the students drinking and smoking in a bar, and wearing just undergarments on a street. The photos were shown by one of the Facebook friends of the girls to the school officials prompting them to ban the students from marching in their graduation rites. According to the school, the students violated the school code of conduct.

The parents of he students in defense filed a petition for the issuance of a writ of habeas data and asked the court to order the school to surrender and deposit all soft copies of the photographs, and to declare they have been illegally obtained in violation of the children's right to privacy.

(Bilbao, et al. (2019). Technology for Teaching and Learning 1, p. 187.)

Create an editorial cartoon out of the case of Facebook privacy. Without texts, show your stand on the issue using a graphical illustration. It doesn't matter what level is your artistic competency. Just follow the guide questions: *1) To what image do you compare Facebook privacy? What message do you want to convey in your image of Facebook privacy?*

Y



3. If the first and second may not work for you, compile the output that you have made as evidence of your activity just in case you may be asked to submit a regular portfolio at the end of this course.

Analysis

This is the decision of the Supreme Court on the case cited earlier:

> *The court dismissed the parent's petition and ruled that, "The school did not violate the minors' privacy rights. "According to the court, the school cannot be faulted for being "steadfast in its duty of teaching its students to be responsible in their dealings and activities in cyberspace, particularly in [social networks], when it enforced the disciplinary actions specified in the Student handbook, absent a showing that, in the process, it violated the students' rights."*
>
> *The decision of the court stated that the students cannot invoke the protection attached to the right to informational privacy because the photos were seen by other student of the school, who in turn showed them to the computer teacher who reported the incident to the school authorities. In the language of the court – "The photos, having been uploaded on Facebook without restrictions as to who may view them, lost their privacy in some way." The court further added in its ruling that setting their post privacy to 'Friends Only' is not an assurance that it can no longer be viewed by another user who is not Facebook friends with the source of the content. The decision read that, "Without proof that they placed the photographs subject of this case within the ambit of their protected zone of privacy with respect to the photographs in question.*
>
> *The decision of the court puts the burden of ensuring safeguarding privacy online users and expects them to exercise due diligence in their online dealings and activities. According to the court, not discounting the role of schools and parents in disciplining and educating their children to be good digital citizens, self-regulation is the "best means of avoiding privacy rights violations." It further issued a ruling saying that nothing is ever private on Facebook, even those tagged as private never really escape public viewing, including unintended audiences.*

(Bilbao, et al. (2019). Technology for Teaching and Learning 1, p. 188.)

The case cited here calls for internalization of social media education and etiquette among online users. The bottom line of this case is to pay attention to the call for responsible use of social media – that is, for the inclusion of social media etiquette in the curriculum or integration in good manners and right conduct… all social media can attain many things in terms of social good **(Brutas, 2015 in Bilbao et al., 2019).**

Writing from Reading

Based on what you understand from the case, write your commentary about it. Follow the pyramid framework provided here that includes: *Problem statement; Recommendation/s; Evidence and supporting arguments; and Conclusion.*

You may opt to do one of the following:

1. If you are connected online, You can post your analysis on your ePortfolio.
2. If you cannot do number 1, post your output in your group FB page. Read also the posts of your classmates and comment on their ideas constructively.
3. If the first and second may not work for you, compile the output that you have made as evidence of your activity just in case you may be asked to submit a regular portfolio at the end of this course.

Abstraction

The things you put online can stay forever and might be the first there people notice about you. *A bit thing like a tattoo?* (https://urlshort.host/2u9U4)

With every new feature you add to your profile, you're adding to a digital tattoo. We've all got one and people that know you, and people who don't, can see it and learn a lot from it. What does yours say about you?

ThinkUKnow.co.uk outlines five things to ask before you post:

1. **What do I look like?** *Always remember that the way you look like in what you share and your intention for sharing it is not always perceived the way you originally intended it to be. People can still get you wrong. How you look like may not always be the way others see it. So, be careful.*
2. **Is this ink permanent?** *Anything you share online is beyond your control. Even if you delete it, still, you can never tell how many have copied or downloaded it and how many are sharing it. It is always easy for other people to share what you have posted without you knowing it.*

3. **Am I giving away too much?** *Keep your identity as private as you could. Don't reveal too much of your personal information. It might be used to put you down.*

4. **Would I want this shared about me?** *Think twice before you share something that involves other people. Always ask permission from them if you're going to share, say, for example, a funny picture with them. You might not know how they feel when rude comments are getting in.*

5. **Does it pass the Billboard Test?** *Think twice before sharing something online. Reflect: whether you would be happy to see it on a billboard – where the rest of your family, school, and community could see it.*

Every day, whether we want to or not, most of us contribute to a growing portrait of who we are online, a portrait that is probably more public than most of us assume. So no matter what you do online, you must know what kind of trails – digital footprints you're leaving and what the possible effects can be **(**https://urlshort.host/eWAj5**).**

You are making a picture of who you are out of your digital footprints. Make sure it's accurate. To facilitate this, **Internet Society** has these tips:

1. **Learn The Basics: What's A Digital Footprint?** *All the stuff you leave behind as you use the Internet – your app use, comments, email records, posts, and Skype calls, are parts of your online history – your digital footprints.*

   Know Why Should You Manage Your Digital Footprint. *You must understand what you're leaving behind when you visit a website because the web is listening every time you use it! So, make no mistake about it.*

2. **Watch Online Tutorials.** To safeguard your online identity, there are online tutorials that can best help you not only to learn your digital footprints but also to help you make the right choices. Just click https://urlshort.host/eWAj5.

Know Your Manners When Using Technology

The poor netiquette can stick around to disturb you much longer if not forever because the rulebooks of etiquette are just as vital in cyberspace as they are in the real world.

Hartney (2020) suggested ten basic rules of netiquette to avoid damaging your online and offline relationships.

1. **Make Real People a Priority**. *The most irritating situation is when during your conversation, one is so hooked up in his/her gadgets. Remember the rule in the face to face communication that we have to look at people we are communicating with. If you are with people and your phone rings, don't answer it in front of them except telling the other party you are calling them back. If it is essential, apologize for taking the call.*

2. **Use Respectful Language.** *Watch out for foul language! Be respectful at all times. It's not just what you say but also how you say it - either take the trouble to use the shift key for capital letters, or write in all lower case, but don't use caps lock. Text in all caps is generally perceived as yelling. Of course, it would be pleasant if you say please and thank you as appropriate.*

3. **Share With Discretion.** *Always be on guard by not sharing unpleasant materials - drug use pictures, drunk pictures, naked sexy pictures, or unedited home video. Your problem at home with your family, at work with your boss and co-employees, and or at the party with friends are yours to keep in private, not for online sharing.*

4. **Don't Exclude Others.** *Be careful with online jokes. If you have a funny comment on your post involving somebody else, send that comment in private. Don't embarrass the person in a bigger group with your obscure comment. The same thing is true with texted or emailed jokes. The best way not to hurt somebody else is by not sharing that joke at all.*

5. **Choose Friends Wisely.** *Be careful with sending a friend request. Be sure you know the person whom you want to be friends within social media very closely. If you don't want to be in touch with someone, don't add them. Remember, when worse comes to worst, it is insulting to be dripped from someone's friend list on social media.*

6. **Don't Email Large Files.** *Post large files to your own space and send people a link. Don't attach it to an email so to avoid crashing their server or depleting their inbox quota.*

7. **Respect People's Privacy.** *Avoid sharing the information sent to you without checking with the original sender. Use BCC (blind carbon copy) rather than CC (carbon copy) if you are sending it out to more than one person. You might be thinking that we are all friends on the net, but others would not like their names to be dragged or publicized. The same goes for uploading photos that include other to public space, and when tag people on Facebook, others may also have access to those people unless they have adjusted their privacy settings. And most importantly, don't sign up for newsletters and other communications using someone else's email address.*

8. **Fact Check Before Reposting.** *You might be too overwhelmed in sharing something thinking you have done a wonderful thing to people with the information that you have gathered, ensuring it's beneficial just to be bashed for sharing fake news. Don't be naïve. Forwarding a message will not bring you good luck, just bad karma! So, check first whether what you are going to share is legit or a hoax.*

9. **Respond to Emails Promptly.** *No one can stop you from ignoring and deleting crazy stuff, spam, and unsolicited messages but for a message coming from someone you have given your email address to, you are in a position to have the courtesy of replying their messages. If it is a survey and quite long, you can always tell them you have difficulty understanding the question and might be*

better off looking for the information elsewhere. To decline with proper reason is a form of courtesy rather than simply ignoring it.

10. **Update Online Information.** Keep your website up to date. It is a way of making people aware of your availability. Don't give them the idea that you are available when, in fact, you are not. If you can't do it, take it down.

Application

Creating Netiquette Campaign Material

1. First, on your own, list down your internet etiquette about fighting online rudeness and helping to bring courtesy and respect back to the web.
2. Chat with a classmate and discuss your internet guidelines with him/her. Listen also from his/her ideas. Put together all your minds and create a peer internet etiquette.
3. You may opt to do any of the following:
   3.1 You may use the application tools that you have learned, such as https://www.powtoon.com or any other digital apps, and create a two-minute video about your netiquette guidelines and ask permission to disseminate them on your whole college or university – as a campaign material to encourage everyone to use the internet responsibly.
   3.2 You can upload it to your ePortfolio.
   3.3 You can also post on your group FB page.

Closure

Congratulations! After coming up with all your outputs and sharing them accordingly, surely, you are making positive digital footprints and your digital tattoo now resonates an aura of a responsible global digital citizen and by doing so, by constant self-checking, eventually, there is no doubt of you becoming a champion in demonstrating social, ethical, and legal responsibilities in using technology tools and resources. Aja!

Lesson 4

Educational Sites and Portals, Online Communities, and Online Resources

Learning Outcomes

At the end of the lesson, you should be able to:

- Cite different educational sites and portals that are useful in various content areas; and
- Connect with different online learning communities and resources.

Time Frame 2 days

Introduction

In this age of lightning-fast information transfer, teachers and students alike become increasingly reliant to online learning sites, communities, and resources. Teaching and learning are now taking place on digital platforms and e-learning ecologies, thereby bridging the gaps that physically divide various educational institutions.

While there are many educational sites and portals available on the web, access to these resources are, however, limited. Both teachers and students are constrained by their knowledge, skills, and even financial capacity. Furthermore, finding the right site or portal that fits one's instructional needs is another challenging task. With these challenges at hand, it is essential for teachers to be influenced by both research and practice in the utilization, development, and evaluation of online learning platforms.

In this lesson, you will be introduced to several educational sites and portals that are useful in various content areas, and will be connected to different online learning communities and resources through hands-on and direct experiences.

Activity

What Do You Already Know?

To find out how much you already know about the concepts discussed in this lesson, search the web about, ***"The Best Online Education Platforms for Filipinos",*** and complete the table below.

Online Education	Salient Features/	

Sites and Portals	Description		
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

Analysis

To extend the information about the lesson, answer the following questions comprehensively.

- What are educational sites and portals?

  _____
  _____
  _____
  _____

- What makes an effective educational site and portal?

  _____
  _____
  _____
  _____

- What are the important considerations on the content of educational sites and portals, communities, and resources?

  _____
  _____
  _____

- What are the challenges that you experienced in searching for educational sites and portals?

  _____
  _____
  _____
  _____

- How can educational sites and portals be best utilized in student-centered learning?

_____
_____
_____
_____

- Why is it important to connect with online learning communities and access online learning resources?

_____
_____
_____
_____

Abstraction

What are Educational Sites and Portals?

Educational sites and portals are websites that help different educational sectors by providing access to relevant information and resources to each community served. To improve their teaching, teachers can find useful instructional tools, and by using these portals they enhance student-centered learning. Students will have access to other resources and facilities, including learning materials, lesson plans, current event news, instant messaging and e-mail, and the opportunity to perform guided searches.

Some Examples of Online Educational Sites and Portals

Check these educational sites and portals by clicking the web link provided on the table below:

aws educate www.awseducate.com	AWS Educate is a global initiative created by Amazon.com, one of the world's largest tech giants. The platform has a strong education-to-career focus.
coursera www.coursera.org	Coursera was founded by Daphne Koller and Andrew Ng with a vision of providing life-transforming learning experiences to anyone, anywhere.
edX www.edX.org	EdX is a trusted training and learning network. Founded by Harvard and MIT, edX is home to more than 20 million learners, most of the world's top-ranking universities, and industry-leading firms.
Khan Academy	Khan Academy provides practice activities, instructional videos, and a customized learning platform that empowers

www.khanacademy.org	learners to study in and out of the classroom at their own pace.
TEDEd www.ed.ted.com	TED-Ed is TED's program on youth and education. The goal of TED-Ed is to bring out and promote the thoughts of teachers and students around the world. It encourages learning — from creating a growing library of original animated videos, providing teachers with an international forum to develop their interactive lessons, helping interested students around the globe introduce TED to their classrooms, acquiring presentation literacy skills, and promoting creative leadership in the global network of TED-Ed.

Online Communities for Education

What is an Online Learning Community?

Many educators are turning to Facebook or Twitter for the latest strategies, materials, ideas, and news in teaching. But did you know that just for educators, there are hundreds of online communities? You will network with fellow teachers through these social networks, extend your personal learning network (PLN), discover and share tools, and build peer-to-peer relationships. We've assembled a list of our favorite online teacher groups.

Online learning communities are essential to achieving a productive environment for online learning. That is why they're so popular, especially in not only in higher education but also in other grades primary and secondary. Community participants in online learning create an interactive canvas of diverse reactions and feedback.

You find ways to explore, learn, evolve, build skills, and look for intellectual understanding-something you wouldn't do themselves. Such learning interactions instill a sense of belonging and camaraderie that inspires and motivates online learners to persevere. Nonetheless, most teachers are unable to include learners in the discussion board because the learners are pursuing the courses in their time room.

There are also ways you can use to slowly create involvement and, eventually, a real sense of community. What you need is to make improvements in the design of your course like group learning activities. Some examples
of Online Communities:

Online Communities	Description
Classroom 2.0 CLASSROOM 2.0 web 2.0 | social media | & more https://classroom20.com/	The social network in the classroom for those involved in Web 2.0, Social Media, and Participatory Technologies. Participate in meetings, obtain updates for activities, and get in contact with colleagues.

Edmodo for Teachers  https://www.edmodo.com/teachers	Need suggestions for a lesson in Common Core, Science, or languages? Only ask; in minutes, our global educator network will share the tools. We have protected you no matter what your grade level and subject area.
Discovery Educator Network  http://www.discoveryeducation.com/what-we-offer/community/home.cfm	The Community of Discovery Education is a network of action centered on linking educators to one another's most important tool. No matter what your responsibility in education, you deserve a positive learning atmosphere that will help you develop your practice, provide valuable networking opportunities, promote the sharing of great ideas and concentrate on the joy of teaching and learning.
EdThena  https://www.edthena.com/	Video resources designed to improve teacher professional development through observation in the classroom and online collaboration.
Common Sense Educators  https://www.commonsense.org/education/recognition-educators	Common Sense Educators form a group of like-minded people who believe in the power of learning transformation technology and believe that digital citizenship is an integral cornerstone of effective digital teaching. Everyone who is an educator-whether a teacher in the classroom, a tech instructor, a librarian, a teacher in the home school, a restoration teacher, a parent coordinator, or more-may become a common-sense educator.
Educator Innovator  http://educatorinnovator.org/	Educator Innovator offers an online forum for educators and organizations that support open learning and that exemplify linked learning through their passions and spirits.
The Current	The Current is Educator Innovator 's open publishing website and provides a forum

http://thecurrent.educatorinnovator.org/	for sharing resources and stories about what we as educators observe, do, and reflect on connecting learning and teaching.
Teaching Channel https://www.teachingchannel.org/	Teaching Channel is a vibrant online community where teachers can observe, exchange, and learn different strategies to help each student grow.
Educators Connect http://educatorsconnect.com/	EducatorsCONNECT is an online community where teachers can socialize, develop friendships, exchange teaching tips, experience in classrooms, lesson plans, career opportunities, etc.
Edudemic http://www.edudemic.com/	Edudemic covers up-to-date research, news, and educator tools.
Better Lesson https://betterlesson.com/	Check over 1 M of instructional services that high-performing teachers from around the country contribute. You can find full lesson plans and modules, along with a wide range of innovative educational materials. You can also incorporate your tools for instruction.
TeacherTube http://www.teachertube.com/	TeacherTube is an online community for educators and others who wish to share teaching videos. Members will rate the videos and participate in group forum discussions.
TeachAde http://www.teachade.com/	This online community was explicitly developed for teachers and offered a forum for educators to communicate, share resources, and ask questions. TeachAde-TeachAde is an educational,

	social network. Members will find lesson plans, audio, video, and other multimedia tools, and share them.

What makes an effective educational site and portal?

Educational sites and portals, to be effective, must possess several qualities such as the following. Briefly explain each of these based on your understanding.

- Personalizes the learning journey.

  _____
  _____
  _____

- It makes the contents discoverable.

  _____
  _____
  _____

- Enables community interaction.

  _____
  _____
  _____

- Recognizes achievement.

  _____
  _____
  _____

- Blends online and offline learning.

  _____
  _____
  _____

- Accessible on all devices.

  _____
  _____
  _____
  _____

Other important considerations on the content of the educational site, portal, and resources

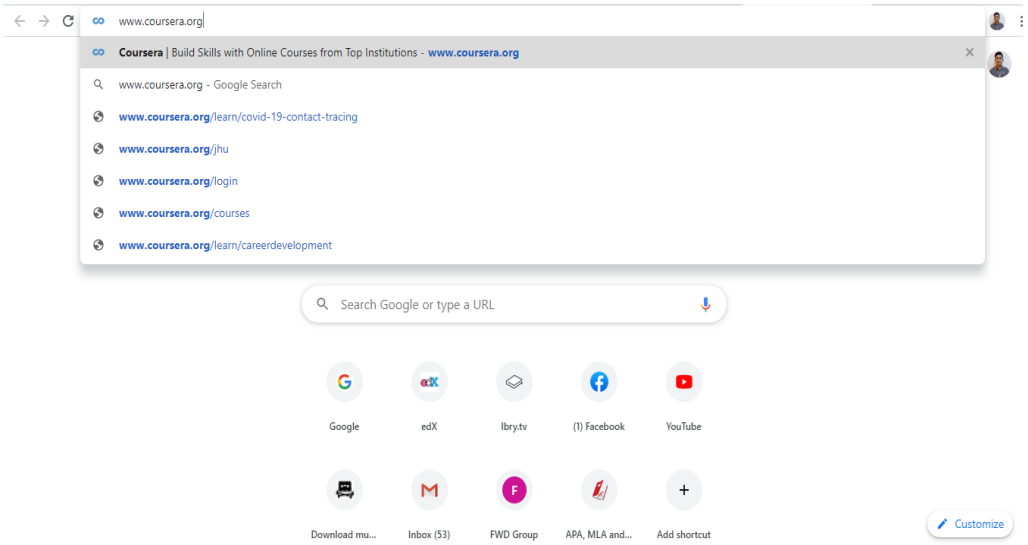
From among the educational sites and portals presented above, choose one content area, and evaluate using the following criteria.

Considerations	Yes	No
Content material provided by the portal is aligned with the school's curriculum and instructional program.		
Information is error-free, bias-free, current, and timely and is presented objectively.		
The portal and information contained there are updated frequently.		
Links to outside sites are relevant, authentic, up-to-date, and appropriate.		
Concepts and vocabulary used are relevant to students' abilities (but maybe differentiated by age or intended audience).		
Images and graphics are bias-free		
Text throughout the site uses correct grammar, spelling, and sentence structure.		
Designers and researchers who provide content for the site are experienced and reputable in their fields.		
Contact information is provided, and users are encouraged to suggest improvements		
Interaction through the portal is compatible with the physical and intellectual maturity of the intended audience.		
Topical information adequately covers the subject for the intended audience.		
The progression of topics within the portal and with external links is logical and relevant.		
The portal offers information that is not readily available from other sources or offers unique ways of accessing the materials.		
Materials on the portal are tailored for various users (students, parents, and teachers) who have different needs and abilities.		

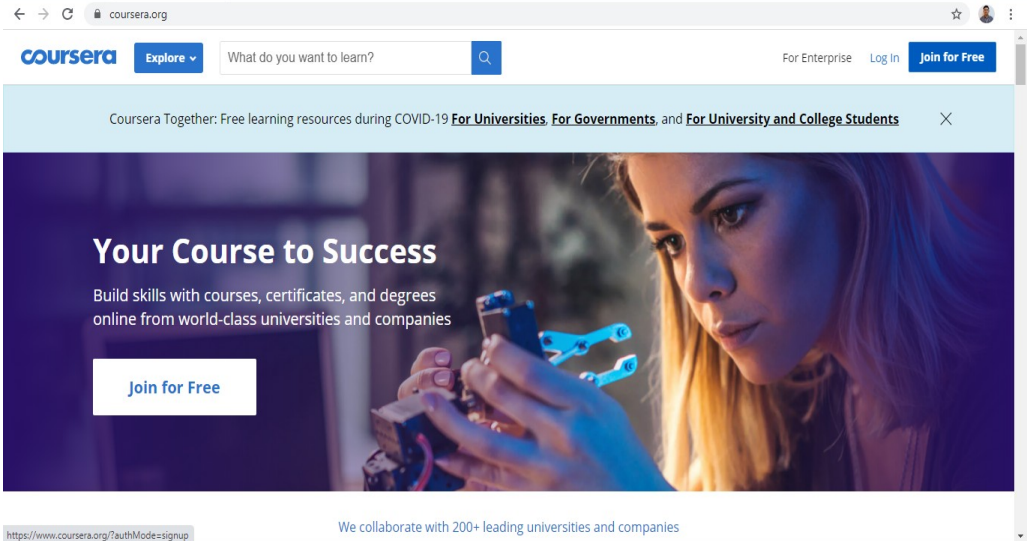
Comprehensive Guide on How to Create an Account on Various Educational Sites and Portals

Practice accessing an educational site and portal by following these simple steps:

1. Go to an Coursera.org by typing the URL on the address bar.



2. Click the **'Login'** or **'Join for Free'** button.



3. Choose whether you want to provide a name, email, and password or link your Coursera account to your Facebook profile, Google account, or Apple ID.

   If you choose to create a new Coursera account with a name, email, and password, your password needs to be eight (8) characters or longer.

You may also watch video tutorials on how to set up your accounts on various educational sites and portals. Watch through the links provided below:

1. ***Coursera:*** https://www.youtube.com/watch?v=clWzc4NghOk
2. ***AWS Educate:*** https://www.youtube.com/watch?v=4ySzWA0W1C0
3. ***edX:*** https://www.youtube.com/watch?v=sEeYnsobXIc
4. ***Khan Academy:*** https://www.youtube.com/watch?v=XM6SuhIe8CY

5. ***TED-Ed:*** https://www.youtube.com/watch?v=O6zCdzKGrmQ

Application

Would you love to find out how much the module has taught you? Start this mission, and complete it.

Create an account and register on the following educational sites and portals:

- AWS educate
- Coursera
- edX
- Khan Academy
- TED-Ed

Guidelines to consider:

1. Use one email address, preferably an institutional email address, in creating your accounts.
2. In each site or portal, you may opt to enroll or follow a course that matches your field of interest or specialization.
3. Communicate with colleagues by sending them an email and co-sharing of educational resources. You may ask for a copy of their learning modules, activity sheets, lesson presentations, etc. Document this process.

Closure

Educational sites and portals are designed to aid and not replace teachers in the teaching-learning process. It is through this premise that one must master the nitty-gritty and technical know-how of accessing various educational sites and portals as well as in connecting with online learning communities and resources.

As future teachers, you are now given the power of technology to optimize the teaching-learning process. Make sure that you use this power to the fullest! Congratulations, you may now proceed to the next part of the lesson.

Collaborative Projects and Technology Tools

Learning Outcomes

At the end of the lesson, you should be able to:

- Collaborate with stakeholders in the development of ICT-based teaching and learning materials;
- Familiarize oneself with various technology tools; and
- Develop own teaching and learning materials with the use of technology tools.

Time Frame 3 days

Introduction

The use of technology tools in the teaching-learning process is becoming increasingly relevant in the digital age. In essence, technology tools are software or applications that can be used to develop or support online course content.

It is on this note that teachers must be familiar with various technological tools and are capacitated to utilize them in the development of teaching-learning materials. Meanwhile, in order to optimize the use of technology in instruction, there is a need to bridge gaps between collaborative barriers. In the e-learning ecologies, collaboration is made more possible with the physical divide becoming less visible. Both teachers and students can now interact virtually, thus creating more spaces for collaboration. Collaborative projects are integral to allow multiple but holistic perspectives in the development of instructional materials.

In this lesson, you will be introduced to various technology tools and be given the chance to utilize them in teaching and learning process. You will also be asked to collaborate with stakeholders in the development of contextualized teaching-learning materials.

Activity

What Do You Already Know?

To find out how much you already know about the concepts discussed in this lesson, watch the video entitled, ***Why e-learning is killing education*** through this link: https://www.youtube.com/watch?v=iwSOeRcX9NI.

After watching the video, write an essay about, ***"How should e-learning be done?"***

Analysis

Read the journal entitled, **"Relevance of ICT Tools in Teaching-Learning Exploiting Flipped Classroom"** by Sumathi and Selvarani (2020) and answer the following questions:

- What are some ICT tools that are used in the teaching-learning process?
  a. Quizzes?

  _____
  _____

  b. Presentations?

  _____
  _____

  c. Video Creation?

  _____
  _____

  d. Online Collaboration?

  _____
  _____

- What are Learning Management Systems (LMS)? Give examples.

  _____
  _____
  _____
  _____

- How can the use of ICT tools in teaching enhance learning?

  _____
  _____
  _____
  _____

- How can you best collaborate with stakeholders using digital platforms?

  _____
  _____
  _____
  _____

Abstraction

The Use of Technology Tools in Teaching and Learning

Schools use a diverse set of technology tools to communicate, create, disseminate, store, and manage information. In some contexts, technology tools formed an integral part of the teaching-learning interaction, through approaches such as replacing chalkboards with interactive digital whiteboards, using students' own smartphones or other learning devices during class time, and the "flipped classroom" model where students watch computer-in-house lectures and use classroom time for more interactive exercises.

When teachers are digitally literate and trained to use technology tools, such strategies will contribute to higher-order thinking skills, provide students with innovative and individualized ways to communicate their understandings, and better prepare students to cope with rapid technological change in society and the workplace.

Some Technology Tools used in Teaching and Learning

Check the following technology tools and explore their applications to teaching and learning by visiting the URL:

Technology Tools	Applications to Teaching and Learning
Google Form  https://blogs.umass.edu/onlinetools/assessment-centered-tools/google-forms/	Google Forms is Google is a free online platform that allows users to create forms, surveys, and quizzes as well as collaboratively edit and exchange types with other people. Educators can use Google forms at the beginning of the class to evaluate their students and gage pre-existing knowledge. Also, Google forms can be used to provide feedback from students and parents and receive feedback. In the same way, students can use Google forms to measure their learning, set learning goals, and collect data for their research projects.
Google Docs  https://study.com/academy/lesson/how-to-use-google-docs-in-the-classroom.html	Google Docs is an online Word processing software that allows you to save all documents and files on Google Drive for free. All you need is an (also free) Google Account, which you already have when using Gmail. All the files are saved on the Google cloud with Google Docs, so you have access to your documents from anywhere; all you need is a device with an internet connection.

Edmodo https://www.educationworld.com/a_tech/how-educators-can-use-edmodo.shtml	Edmodo is the leading social media and learning site for teachers and students alike, also known as "Facebook for education." Teachers can also put the classroom online, with Edmodo. Edmodo users can manage their classes and consolidate all their activities in one place, with the ability to give students assignments, quizzes, and polls.
Google Classroom https://edu.google.com/k-12-solutions/classroom/?modal_active=none	Google Classroom is a powerful interactive resource for learning-centered in a community. It allows students to post questions and seek responses from their fellow students and teachers. Additionally, teachers can post intriguing questions and lesson materials for home review. It may also be integrated with other Google products such as Google Forms, which can be an excellent way for students to get feedback.
Canvas https://beaver.instructure.com/courses/670/pages/welcome-to-canvas-for-beginners	In the 21st century, online learning platforms rank among the most common digital resources to emerge. They allow students to access class materials from anywhere they have an Internet connection and give teachers creative freedom to develop lesson plans.
Moodle https://www.ispringsolutions.com/blog/getting-started-with-moodle	The Moodle name is an acronym for a Functional Object-Oriented Dynamic Learning System. It is an open-source and community-driven platform which, due to its feature set and versatility, has gained immense popularity. You can create classes using Moodle, make attendance lists, supply learning materials, give quizzes, submit feedback, and much more. Inside the platform, there's a tremendous amount of versatility and configurability. For some instances, it's best to get an expert to assist you with the installation and make sure you have all the right features set up as you want, but we'll touch on that later on.
Zoom https://harvard.service-	Zoom is a free video conference platform commonly used for online meetings and interactive presentations in education. Yet its ability to improve the teaching and learning experience in-classroom face-to-face provides unexplored opportunities.

now.com/ithelp?id=kb_article&sys_id=4c3290f6db5b845430ed1dca4896197f	Synchronous online class sessions, where everyone is scheduled to attend a Zoom meeting, are one way to build interaction when students are far. Still, Zoom can also be used to help other teaching and learning scenarios. Zoom can be used on laptops, desktops, tablets, smartphones, and even desk phones, allowing students to access the class session in many ways.
Schoology https://info.schoology.com/get-a-demo.html?utm_source=schoology-blog&utm_medium=web&utm_campaign=Demo+Request&utm_content=bottom-cta www.schoology.com	Schoology is a cloud-based learning management system that provides educators and academic institutions with one platform to develop engaging content, plan lessons, and assess student comprehension. Education isn't just about students and teachers. Schoology lets you put together everyone — students, teachers, coaches, parents, administrators — with one forum for connectivity and collaboration.

Other Video Resources

1. Best Apps for Teachers in 2020
   Link: https://www.youtube.com/watch?v=vTDh-h7Xti4

2. 7 BEST Websites and Apps for Distance Learning
   Link: https://www.youtube.com/watch?v=svmGQhQLuBQ

3. How do you keep google classroom organized?
   Link: https://www.youtube.com/watch?v=sYJErrN0A8k

Application

Would you love to find out how much the module has taught you? Start this mission, and complete it.

1. Create a google classroom account.
2. Prepare a lesson module with the following contents:
   a. Objectives
   b. Time Duration
   c. Materials Needed
   d. References
   e. Lesson Proper following the 4As design
   f. Assessment (use google form)
   g. Assignment

3. Collaborate with 2 of your classmates in the preparation of the lesson modules using the google docs. Document this process.

4. Upload the lesson module in your google classroom account.

Closure

Teaching, learning, and collaboration just got more comfortable with the technology tools being readily available. As future teachers, you need to take advantage of these tools to make your job simpler and easier. This lesson just provided you a scratch on the surface, but it's up to you to deepen your knowledge in a sea of online resources. Keep swimming!

Module Assessment

This assessment is intended to check how learners manifest observance of social, ethical, and legal responsibility in the use of technology tools and resources.

Instruction. Choose the letter of your chosen answer.

1. Which one of the following manifests a behavior of a global digital citizen?
   A. By behaving appropriately when the situations demand it
   B. By adopting a new identity in the virtual world
   C. By acting responsibly in both offline and online activities
   D. By acting appropriately when seen by the people in the community

2. How can one display the proper use of technology for altruistic service?
   A. Creating prank accounts to malign the practices of the government
   B. Hacking bank accounts to help the poor
   C. Spreading chain prayers through messenger
   D. Using social media sites to campaign for social advocacy

3. The following are considered as a global digital netizen EXCEPT for one. Which one is this?
   A. When meeting people online, Rosie never gives out her personal information to others.
   B. When collaborating with other people online, Dina is conscious of their values and culture.
   C. Marlon uses social media to campaign for support to the victims of calamities.
   D. Diana takes care of her gadgets and burns them when no longer useful.

4. Which should you not give out on the internet?
   I. Name
   II. Address
   III. Bank account
   IV. All of them

   A. I only
   B. I, II, III, IV
   C. II only
   D. III only

5. Your friend posted your photo which you did not like and comments of people seemed to devastate you? How should you handle the situation?
   A. Keep quiet and allow everybody to hurt me
   B. Quarrel with my friend on social media
   C. Report to the police station
   D. Tell my friend to remove the picture
6. Who among of these netizens displays proper netiquette?
   A. Anne writes in all caps so that her post can be easily read.
   B. Carlos shares his personal information on social media o that he will become popular.
   C. Martha writes her posts incomplete spelling, grammar, and punctuation.
   D. Tracy posts anything that comes to her mind to express herself.

7. How can you keep yourself digitally secure?
   A. Announce online connection and have all posts for public viewing.
   B. Have virus protection and no need for backups.
   C. Lock up and limit online associations.
   D. Set the account on a privacy setting and have a confidential password.

8. Tracy submitted a report in her class by copying a blog without paraphrasing, synthesizing, and citing the source. What did she violate?
   A. Theft
   B. Plagiarism
   C. Hacking
   D. Copyright infringement

9. Who should take the credit for copyright?

   A. Author only
   B. Publisher only
   C. Both author and publisher
   D. Reader

10. Teacher Rocky used a downloaded documentary film in his class. As an excellent example of netizen with appropriate netiquette, which is the best thing for him to do?

A. Inform the class where she downloaded the video
B. Introduce the video to the class without telling where it came from
C. Tell the class that she asked someone to make the video for her
D. Tell the class that she made the video for them to believe that she is an efficient teacher.

11. What is the advantage of using Google Docs in a classroom?
    A. All students and teachers can work at the same time on the same document
    B. Each student can take turns editing the document
    C. All students can email the document to the teacher and wait for feedback
    D. Teachers can create a new document if an entire paragraph has been accidentally deleted.

12. What happens when a teacher provides feedback to the students using Google Docs?
    A. The students can see the teachers comments, wait for the teacher to give them the document and then ask questions
    B. The students can see the teachers comment as the teacher types them and ask questions immediately
    C. The students can see the teachers feedback and email their responses to the teacher
    D. The students can see their work and can request the teacher to email the feedback
13. A website that lets anyone add, edit, or delete pages of content is called a
    A. Wiki
    B. Online forum.
    C. Usenet
    D. Lurker site.
    E. Social network.

14. Today the most popular social networking site is
    A. MySpace
    B. Twitter
    C. Weibo
    D. Facebook

15. Two increasingly important ethical aspects of social media are
    A. Ratings and traffic.
    B. Transparency and privacy.
    C. Identity and honesty.
    D. Virtue and virality.

16. What is the definition of collaborative tools?
    A. A technology tool that enables people to work together to achieve a goal

B. work carried out by a group of people
C. collaborative music
D. online learning in the class

17. April gives her friend a Web site address. She recommends that her friend check it out and possibly sign-up. April explains that the Web site is for a group of friends to use to connect with each other. Which of the following best describes the type of Web site April is recommending?
    A. Social network
    B. Online gaming
    C. Collaborative group
    D. Wiki

18. This allows classes to collaborate and share content, provide homework, quizzes, grades, and school notices.
    A. Learning, Managing, System
    B. Learning Management Schools
    C. Learning Management Students
    D. Learning Management Systems

19. _____ lets a group of people work together in real-time over the internet
    A. Web Conference
    B. Online Collaboration
    C. Facebook
    D. Web Portal

20. A/An _____ is a specially designed website that brings information from diverse sources, like emails, online forums and search engines, together in a uniform way.
    A. Dark Web
    B. World Wide Web
    C. Internet
    D. Web Porta

MODULE SUMMARY

You have just completed Module 6 of Technology for teaching and Learning one covering Social. Ethical and Legal Responsibilities in the Use of Technology Tools and Resources. Important key points included in the module include:

- A global citizen understands the interrelatedness of everything to everything else;
- A global citizen is one who sees the world as a community, possesses the ability to comprehend actions that contribute to the value of the world as a

whole and one who is concerned about how one could participate and provide for the benefit of the whole world;

- A digital citizen is an individual who adheres to the guidelines related to the ethical and responsible use of technology – one who acts responsibly in all relationships and interactions in the digital world;
- A global digital citizen is an empowered individual who is dutifully aware of his/her responsibility both for the power of the Internet and for the lasting well-being of our global community;
- There are five tenets of global digital citizenship, namely*: personal responsibility; global citizenship; digital citizenship; altruistic service; and environmental stewardship;*
- There are nine elements of digital citizenship, such as: *digital access; digital etiquette; digital commerce; digital rights and responsibilities; digital literacy; digital law; digital communication; digital health wellness; and digital security;*
- Intellectual property rights are the rights given to persons over the creations of their minds;
- Customarily, there are two types of intellectual property rights, namely: *copyright and rights related to copyright; and industrial property;*
- Copyright infringement pertains to the violation of someone's intellectual property (IP). It is another term for piracy or the theft of someone's original creation, especially if the one who stole recoups the benefits and not the creator of the material;
- The use of Internet materials without proper citation is not exempted from copyright infringement;
- Plagiarism is a form of copyright infringement. It is a failure in citing the source, while copyright infringement is a failure to obtain permission. In other words, copyright infringement is a violation of the rights of the copyright holder;
- The things you put online can stay there forever and might be the first thing people notice about you, as a form of digital tattoo;
- No matter what you do online you must know what kind of trails – digital footprints, you're leaving, and what the possible effects can be;
- Etiquette principles are just as important in cyberspace as they are in the physical world—and bad netiquette facts will hang around to haunt you for much longer while illustrating ethical, social, and legal obligations through the use of technology tools and resources ultimately creates a positive digital footprint for any global digital citizen;
- Portals of educational services are vertical portals that provide a public link to find Web pages and information on the Internet. Instructional portals are variations of business knowledge portals that provide an entry point for an educational institution or organization's private resources and information. Applying this concept helps an individual to understand the

function of an educational portal. Also, it is possible to predict the path of educational portals in the future, by noting that educational portals represent the progress of other portals; and

- It happens that even a conventional classroom today has no open-ended or interactive resources. To explore and learn new techniques, and keep on top of stuff, is essential for modern teachers. Here's a list of the necessary tools you need to turn your classroom into a mixed-learning or digital one. The best teachers know the best tech tools to impress their students and make the best they can be at their lessons.
- Technology platforms to teach provides incentives for all. Students with special needs, students who live in remote locations, or who travel always benefit immensely from technology and distant learning. It happens that even a typical classroom today has no media or internet resources at all. The exploration and learning of new technologies and keeping on top of things is, therefore, important for modern teachers.

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