EDFN 5024 Signature Assignment

Three Lesson Unit with Integrated Technologies

This document includes:

1. Signature assignment description
2. Signature assignment rubric
3. Proposal template, including digital tool evaluation tables
4. Sample project

Purpose

This project will help you analyze and utilize digital technologies in learning environments. We will focus on aligning learning outcomes, digital technology use, and assessment approaches to best support learning. We will also analyze the features, cost, privacy, safety, and accessibility of technological tools.

Assignment Description

For this assignment, you will demonstrate your ability to select and use digital technologies to support learning and promote equity. You will plan a unit of instruction related to any area you would like. The unit must include at least 3 lessons total. Then, you will design 10 digital technology-supported activities for the unit (more details below).

You will share your unit by either:

1. Building it into an accessible learning management system (LMS) such as Google Classroom, Canvas, or Moodle OR
2. Creating a hyperdoc that explains each piece of the unit and links to relevant activities

Note, your unit does not need to require all students to complete all 10 activities; you can support student choice by providing multiple activity options.

Planning and Documentation

Please complete the Project Proposal, including the Lesson Table, Digital Tool Evaluation Tables, and Final Activities Table (see template below). This will help you think carefully through your plans and digital technology choices. Submit the full proposal, including all tables and a link to the unit description (LMS or hyperdoc).

Technology-Supported Activities

You will create **10 activities total**.

3 Activities: For each of the three lessons, create a product that both

1. Presents information or activity instructions *and*
2. Supports formative assessment (provides a way for you to evaluate how well students are meeting learning outcomes)

You might use:

- Interactive slides (Examples: PearDeck, NearPod, Google Slides with Google Forms, etc.)
- Interactive video (Examples: PlayPosit, EdPuzzle, Spiral, VideoAnt, Comment Bubble, Kaltura)
- Some other creative approach you come up with

7 Activities: These are your choice, but you must include at least one of each of the 5 categories below. A single product can fulfill more than one category.

1. Technology that supports disciplinary thinking (demonstrate your TPACK)
2. Peer interaction (flip grid, voice thread, discussion board, etc.)
3. Creation (project centered- Canva, students create powerpoint/slides, etc.)
4. Collaboration (Padlet, google doc, etc.)
5. Summative Assessment (Google Forms, PearDeck/NearPod, Quizlet OR student creation) + Assessment plan (rubric, assessment criteria)

Make sure the actual application of the tools fits the category. For example, students could use Google Docs with or without collaboration; describe a use of the tool that requires collaboration.

Be sure to:

1. Follow basic design principles to keep the focus on learning
2. Use Creative Commons resources when possible and include attributions
3. Apply Universal Design for Learning principles to support all students

Submitting Your Final Project

Please revise each piece based on feedback received during the course. Your final submission will include:

1. The completed proposal (including all tables on the template)
2. A link to the unit on a learning management system OR hyperdoc. Please TRIPLE CHECK that all your activities are accessible to general internet users (test in incognito mode or on multiple devices.

EDFN 5024 Signature Assignment Rubric

Criteria	**ISTE Standards (All: CAEP A.1.1)**	**1- Limited Proficiency**	**2- Developing Proficiency**	**3- Proficient**	**4- Exemplary**	**Points Possible**
Use of technology to support learning outcomes and disciplinary thinking	2.5.b	Unit includes a digital technology application that is connected to the content area of the learning outcomes.	Unit includes a digital technology application that is connected to the content area of the learning outcomes. *The technology application is aligned to the learning outcomes.*	Unit includes a digital technology application that is connected to the content area of the learning outcomes. The technology application is aligned to the learning outcomes and *supports disciplinary thinking.*	Unit includes a digital technology application that is connected to the content area of the learning outcomes. The technology application is aligned to the learning outcomes and supports disciplinary thinking. *Use of technology exhibits creativity.*	40
Use of technology for creativity and collaboration	2.6.d, 3.3.c	Unit includes a digital technology application that encourages student creativity or collaboration.	Unit includes a digital technology application that encourages student creativity and collaboration.	Unit includes a digital technology application that encourages creativity and collaboration. *Use of creative and collaborative technology supports learning outcomes.*	Unit includes a digital technology application that encourages creativity and collaboration. Use of creative and collaborative technology supports learning outcomes *and encourages students to produce and share their own ideas.*	20
Technology-supported assessment	2.7.b, 3.3.e	Unit includes digital technologies that support formative or summative assessment.	Unit includes digital technologies that support formative and summative assessment.	Unit includes digital technologies that support formative and summative assessment. *Assessments are aligned with learning outcomes.*	Unit includes digital technologies that support formative and summative assessment. Assessments are aligned with learning outcomes and *would provide clear information*	20

					on whether the learner has met learning outcomes.	
Digital Tool Evaluation	2.3.d, 3.4.c	Digital tool evaluation tables are <u>partially</u> complete.	Digital tool evaluation tables are <u>fully</u> complete.	Digital tool evaluation tables are fully complete. *Tables demonstrate an <u>understanding of</u> tool features, accessibility, cost, safety, and privacy.*	Digital tool evaluation tables are fully complete. Tables demonstrate *<u>critical thinking about</u>* tool features, accessibility, cost, safety, and privacy.	20

Proposal and Tool Evaluation Template

You are welcome to use other formats, but you must include all the information in this template.

Proposal and Tool Evaluation Template

Unit Plan

Overview

Unit Topic:

Standard(s):

Why is this important?

What should students remember/know/be able to do in 10 years? (List at most 3 things)

Learners

Age:

Characteristics:

Required Pre-requisite Knowledge:

Learning Outcomes

[List here]

Assessment

Formative:

Summative:

Lesson Table

Lesson	Topic	Activities*	Assessment
1			
2			
3			

*Some activities might not rely on digital technologies

Digital Tool Evaluation: Tool Selection

	Tool Description			Tool Use Evaluation		
Product #	Lesson Number	Tool	Description of Use	PICRAT Category and Justification	Affordances of Tool	Limitations
1	1					
2	2					
3	3					
4						
5						
6						
7						
8						
9						
10						

Digital Tool Evaluation: User Experience

Please complete this table for at least four technology tools you are using in your unit.

Digital Tool	Integrations	User Instruction and Interface	Platforms and Access Across Devices	Diversity, Language Support, and Accessibility

Digital Tool Evaluation: Cost, Safety, Privacy, and Data

Please complete this table for at least four technology tools you are using in your unit.

Digital Tool	Cost	Safety	Privacy and Data Collection

Final Activities Table

Please fill in the table below with your final activities.

	Description		Required Digital Technology Elements					
Project-Related File	Lesson Number	Tool	Formative Assessment (1 per lesson)	Disciplinary technology (at least 1)	Peer interaction (at least 1)	Creation (at least 1)	Collaboration (at least 1)	Summative assessment (at least 1)
1	1		X					
2	2		X					
3	3		X					
4								
5								
6								
7								
8								
9								
10								

Summative Assessment Rubric or Evaluation Plan:

Add a rubric or description of how the final assessment will be evaluated.

Full Project for Sharing

Build out the unit in an LMS shell (Google Classroom, Canvas, etc.) or on a hyperdoc. The project should explain:

- Unit topic and objectives
- Step-by-step description of each lesson, including overall goals/outcomes of each lesson
- Activity instructions and links
- Full assessment elements and plan

Make sure ALL elements are accessible to general internet users.

ADD FINAL LINK HERE

Example Project

Example Project (Unit 1 of our course; tables include some examples but are not complete):

Unit Plan

Overview

Unit Topic: theory and background of educational technology

Standard(s):

ISTE Standards for Education Leaders (https://www.iste.org/standards/for-education-leaders):

> 2a. Engage education stakeholders in developing and adopting a shared vision for using technology to improve student success, informed by the learning sciences.
>
> 3c. Inspire a culture of innovation and collaboration that allows the time and space to explore and experiment with digital tools.

Why is this important?

A careful consideration of what technology is and why we would want to implement it in classrooms can help teachers make informed decisions about the tools they choose to use. Many of the challenges we have with educational technologies today is that they are used uncritically and ineffectively. Often these tools simply duplicate the existing patterns of teaching and learning instead of changing how we teach and learn to better meet the needs of today's learners. Future educational technology leaders need to develop a deep understanding of why and how to use new technologies so they can make informed decisions throughout their careers and so that they can support other teachers in making these decisions. They also need to understand the challenges with getting others to use technology and approaches to help others better integrate digital technologies into their classrooms.

What should students remember/know/be able to do in 10 years? (list at most 3 things)

1- Use the best tool to support the type of learning you are promoting, even if that tool is not a digital technology
2- Learning consists of more than just acquiring information; the most powerful learning experiences are often those that are built on collaboration, construction, and creativity
3- There are many reasons teachers struggle to use new technologies in their classrooms

Learners

Age:

- Adults of varying ages

Characteristics:

- Have expressed interest in educational technology
- Many are teachers wanting to become educational technology leaders
- Several special education teachers
- A few focused on becoming an instructional designer in various industries (including higher ed)
- Some have completed advanced coursework on instructional and educational technology

Pre-requisite Knowledge:

- Basic experience with technology in schools
- Basic background of learning theory

Learning Outcomes:

The learner will be able to:

- Define *affordances* and describe how affordances relate to educational technology use
- Analyze the relationship between major learning theories (behaviorism, cognitivism, constructivism, connectivism) and various educational technologies
- Summarize research on educational technology integration and adoption
- Apply learning and technology theories to support teacher technology use

Assessment

Formative:

- Discussion Boards
- Questions embedded in video lectures (EdPuzzle)
- Annotations on documents (Perusall)
- Questions embedded in textbook (self-assessment)

Summative:

- Response to a discussion prompt that integrates core concepts: affordances, learning theory, and technology integration/adoption

Lesson Table

Lesson	Topic	Activities*	Assessment
1	What is technology	Video lecture with embedded questions on what technology is, media/method reading; Perusall; Flipgrid intros + affordances	Perusall, Flipgrid
2	Learning theories	Readings, TED Creativity, Mindmap of learning theories, Vialogue annotations	Mindmap, discussion
3	Technology integration theories	Peardeck on tech integration theories, tech integration model readings, diffusion of innovations simulator, Wakelet on technology tools, discussion board	Peardeck, Wakelet, Discussion Board

Digital Tool Evaluation Table (some example entries):

	Tool Description			Tool Use Evaluation		
Product #	Lesson Number	Tool	Description of Use	PICRAT Category and Justification	Affordances of Tool	Limitations
1	1	Video lecture/ with questions (EdPuzzle)	Interactive videos on technology and affordances with embedded comments, links, and questions.	**IA** Interactive: Students answer questions in lecture video and instructor can respond back; Amplify: provides instructor feedback about individual student understanding beyond what could be done in a traditional classroom	Edpuzzle will not move on until student answers question, so it requires students actively engage with the video. Students can record audio responses, supporting language learners or those who struggle with writing/typing. It also displays student responses to the	The default for question format is multiple choice (built based on a knowledge acquisition model). Students cannot see each other's responses. Students can't ask questions in real time.

					instructor, helping the instructor better understand student thought processes.	
2	2	TED Ed Lesson-Creativity	Lesson surrounding Sir Ken Robinson's talk on school paradigms and creativity. Includes discussion embedded in TED Ed.	**IR** Interaction: Students interact with questions/discussion Replaces lecture/discussion format of a classroom	The structure of TED Ed lessons focuses on a single talk and helps students understand, process, and extend the talk. It has a nice sequence of moving from understanding to extending (broken down for the student).	The discussion format is a bit difficult to navigate and doesn't encourage cross-discussions posts; does not integrate into LMS
9	3	Class Wakelet on Technology Tools	Class members share technology apps and tools, comments that would help other teachers choose tools	**CT** Creative: Students create a shared resource (including links, images, etc) that they can then share with others outside the class; others can create their own versions of the resource and edit to fit their context. Transform: It transforms learning by enabling broad collaboration	Because it's easy to add links, images, text, and videos in Wakelet, the tool encourages the user to compile a variety of resources. The share settings allow a group of people to work together on one Wakelet, as well as create their own versions of others' collections.	It can be difficult to collaborate with a large number of people (need to break into smaller groups); does not integrate into LMS

				(beyond just the class)		
10	3	Moodle Discussion Board on supporting effective technology use (Q/A Discussion format)		**IA** Interactive: Students interact with one another in discussions Amplify: the asynchronous discussion format is more open and flexible than an in-person discussion; students can participate on own time and integrate various resources (images, videos, links, etc.)	The Q/A discussion format requires students post their own response before seeing others, encouraging them to carefully consider their own position before engaging with others. The notifications in Moodle encourage students to return to the discussion multiple times, especially if the notifications are visible to students.	There is a delay between posting and seeing others' posts. The text formatting settings don't encourage use of links, images, video, etc. (it is possible, but takes an extra step to open advanced formatting).

Digital Tool Evaluation: User Experience (EXAMPLES)

Please complete this table for at least four technology tools you are using in your unit.

Digital Tool	**Integrations**	**User Instruction and Interface**	**Platforms and Access Across Devices**	**Diversity, Language Support, and Accessibility**
EdPuzzle	Integrated with standard LMS's (syncs grades of assignments)	Simple to use but sometimes has problems marking videos as "complete" and so does not send score to LMS.	Website, iOS, and Android app, can embed into LMS	Allows audio recording of responses; learners cannot adjust playback speed; only available in English but videos can be in any language/include captions
Wakelet	Does not integrate with LMS; does connect with Google Drive, OneDrive, Adobe Spark, Twitter	Moderately easy to use; encourages use of links rather than text/uploads; can be difficult to understand formatting; collaboration settings confusing	Website, iOS, and Android app	Immersive reader with text-to-voice; can only find instructions/help in English (content can be any language)

Digital Tool Evaluation: Cost, Safety, Privacy, and Data (EXAMPLES)

Please complete this table for at least four technology tools you are using in your unit.

Digital Tool	**Cost**	**Safety**	**Privacy and Data Collection**
EdPuzzle	Up to 20 videos free; teacher and school accounts available	Accounts managed by teacher; Student profiles only available to teachers in school	Does not share student data outside of service needs; does not share data with advertisers
Wakelet	Free	Any content can be uploaded and shared publicly, but Wakelets can be kept private and password protected. Users need to be able to evaluate what is appropriate content to share online and to screen content they see	Users may receive targeted advertisements; anonymized data is used for research

Final Activities Table (EXAMPLES)

Please fill in the table below with your final activities. Include a link to the final product on an LMS or a hyperdoc (**make sure it is accessible**!).

	Description		Required Digital Technology Elements					
Project-Related File	Lesson Number	Tool	Formative Assessment (1 per lesson)	Disciplinary technology (at least 1)	Peer interaction (at least 1)	Creation (at least 1)	Collaboration (at least 1)	Summative assessment (at least 1)
2	2	TED Lesson-Creativity	X					
3	3	Pear Deck	X					
5	1	Flipgrid Introductions			X	X		

9	3	Class Wakelet on technology tools				X	X	
10	3	Moodle Discussion Board on supporting effective technology use			X			X

Summative Assessment Rubric or Evaluation Plan:

Element	Excellent	Good	Fair	Poor
Application of concept: affordances	The solution and comments reflect a deep understanding of affordances and how they relate to educational technology use.	The solution and comments reflect some understanding of affordances and how they relate to educational technology use.	The solution and comments reflect some understanding of affordances with limited application to educational technology use.	The solution does not show evidence of an understanding of affordances.
Application of concept: learning theory	The solution and comments reflect a deep understanding of learning theory and how it interacts with educational technology use.	The solution and comments reflect some understanding of learning theory and how it interacts with educational technology use.	The solution and comments reflect some understanding of learning theory with limited application to educational technology use.	The solution and comments show no evidence of an understanding of learning theory.
Application of concept: technology integration and adoption	The solution and comments demonstrate a deep understanding of research concerning technology integration and adoption.	The solution and comments demonstrate some understanding of research concerning technology integration and adoption.	The solution and comments demonstrate limited understanding of research concerning technology integration and adoption.	The solution and comments do not demonstrate limited of research concerning technology integration and adoption.
Integration of theory	Discussion posts effectively integrate the theories discussed in the unit	Discussion posts demonstrate some integration of the theories discussed in the unit	Discussion posts show limited integration of the theories discussed in the unit.	Discussion posts do not show evidence of integration of the theories discussed in the unit.

ADD FINAL LINK HERE: https://classroom.google.com/c/NDQwNTA5NzIzMTIw?cjc=rpj7bxg (click “classwork” at the top to see the unit sequence)