

## Course Blueprint: EDU-655

### Curriculum Design 4: Emerging Theory and Design

Modules 1-5 of 10 // June 2016

#### MODULE ONE: CURRICULUM DESIGN, EMERGING THEORIES, AND YOUR PERSONAL PHILOSOPHY

##### MODULE OVERVIEW

Welcome to Module One of Curriculum Design 4: Emerging Theory and Design. In EDU-570 Curriculum Design 1: Foundations in Curriculum Design, you explored Universal Design for Learning (UDL), Understanding by Design (UbD), and Differentiated Instruction (DI). In addition, you designed a lesson using an adapted UbD lesson plan template which you will also use in this course. You will be able to apply your skills, knowledge, and experience from EDU-570 to investigate emerging design and learning theories in today's increasingly complex technology-enhanced learning environments.

In Module One, we will consider the recent shift toward emerging theory in curriculum design. The emphasis from teacher-directed activities to a focus on a learner-centered learning environment with ever-increasing amounts of technology is creating a significant transformation in the evolutionary cycle of curriculum design. The emerging theories of connectivism, 21st Century skills, cooperative learning, gamification, and other emerging theories create dynamic, stimulating, and compelling new curriculum design. The Emerging Theories Learning Resource document presents the conceptual frameworks for learning, the processes and products of learner outcomes, and the explanation of these theories and curriculum design.

Learning theories tend to fall into one of several perspectives or paradigms: Behaviorism, Cognitivism, Constructivism, Design-Based, Brain-based, Humanism, and 21st Century Skills. In EDU-570, you explored four learning theories; behaviorism, Constructivism, cognitivism, and humanism. The following is a brief review of the four learning paradigms you studied in EDU-570.

- **Behaviorism** - In the 1960s and 1970s, Skinner supposes that psychology is more aptly studied by observing individuals' behaviors and making connections between their behaviors and their environments or prior stimuli. Outward actions are the result of stimuli -- positive or negative consequences. According to behaviorist theory, humans are no different from other animal species -- like Pavlov's dogs -- in that we respond to stimuli: when we receive a

pleasurable response to an action, we seek to repeat that action; when we receive a negative or unenjoyable response to an action, we avoid repeating that action. When applied to education as a learning theory, behaviorism indicates that the role of the teacher/instructor is to promote learners' positive or desired responses (behaviors) by providing appropriate stimuli and continual positive reinforcement. This type of instruction typically requires much repetition, memorization, question-and-response, and external motivators such as grading and praise, resulting in operant conditioning.

- **Cognitivism** - Cognitive theorists believe that internal mental processes can be understood scientifically and are essential for learning. Not only do learners take in information and add to their already developed beliefs, but in the process of taking in new knowledge, learners also produce original thoughts not directly connected to any "inputs." Cognitivists emphasize the significance of the thought processes (and aspects of the mind, including attention, memory, problem-solving, etc.) at work during a learning experience, not simply the "output" or observable behavior (for example, performance on a test) which results from a learning experience.
- **Constructivism** - Constructivism is a learning theory that asserts that each student constructs his or her learning and knowledge. As opposed to behaviorism, where students are passive respondents to stimuli, Constructivism recognizes the importance of students' active engagement in the learning process; thus, learning objectives written for a constructivist setting are student-centered and typically include verbs such as "reason," "reflect," and "justify." A constructivist learning experience incorporates intrinsically motivating activities such as exploring, questioning, and problem-solving.
- **Humanism** emerged in the 1960s. One of the central premises of humanism is that it is necessary to study the growth and development of students (humans). In humanism, learning is student-centered and personalized, and the educator's role is that of a facilitator. Affective and cognitive needs are key, and the goal is to develop self-actualized students in a cooperative, supportive learning environment.

Why is there a need for new and emerging theories? Indeed, it is not because the old ones have stopped working, but rather because we have a whole new set of teaching strategies striving to serve our present population of learners in a more socially-driven, culturally empowering, and technological manner. The emergence of such trends and theories in teaching and learning means a change in curriculum design. Changes in curriculum design can be accomplished by educators changing their view, stepping down from "the sage on the stage" to a learning coach or mentor with students who are no longer empty vessels into which knowledge is deposited. Today's students are perceived with value and autonomy, needing self-direction and constructing their knowledge base. 2

Successful curriculum designers commit to effective and meaningful student-centered, technologically amplified, and dynamic learning. Educators will be given greater freedom and responsibility to stay current with emerging theories that impact classroom practices in this context.

The Module One readings will introduce you to the concept of the emerging theory. The Getting Started discussion asks about your prior knowledge of and interest in the course topic. You will also explain how this course will assist you in your career path and define your curriculum theory and its basis. In the Module One discussion, you will determine the emerging theory you selected to guide your unit's development for the final project and why. The final project for this course requires you to choose an emerging theory and a set of unique learners to design a curriculum unit of three lessons in a specific educational setting. In Module One, you will draft the introduction to your unit.

**BY THE END OF THIS MODULE, YOU WILL MEET THESE LEARNING OBJECTIVES:**

L.O. #	Learning Objectives
LO1.1	Define the emerging curriculum theory that is the basis for designing a curriculum unit for three categories of unique learners in a specific educational setting.
LO1.2	Draft the introduction to a curriculum unit for three unique learners in a specific educational setting.

**PLAN AT A GLANCE**

This is the recommended plan for completing the reading assignments and activities within the module. Additional information can be found in the Reading and Resources section and the task list.

Post to the Getting Started Discussion Forum.
Review the resources.
Review the final project guidelines and rubric and supporting documents for the final project and post any questions to the General Discussion Forum.
Post your initial post to the discussion.
Respond to your peers in the discussion.
Submit your draft of the introduction to your unit.

## READING AND RESOURCES

### Required Resources

**Text:** *Curriculum Theory*, Chapter 3

Chapter 3 explains how curriculum theory can provide the basis for analyzing curriculum ideas, inspiring best practices, and guiding educational reform. This chapter shows how melding emerging theory and the reality of school curriculum is an essential step in the academic planning process. This chapter explains significant curriculum classifications theory. Finally, it addresses how technology has been a catalyst for curriculum change.

- In what ways is curriculum theory necessary?
- What is the symbiotic and reinforcing relationship between emerging technologies and emerging practices?
- In what ways are emerging theories of curriculum used within organizational models (e.g., learning in online courses or groups via social media)?
- How has technology been a catalyst for curriculum change?

**Document:** [Emerging Theory Resource Guide](#)

This document will assist your search for an emerging theory. Due to the necessity for constantly updated information on emerging theory, this research guide has been prepared for your use in EDU-655. In Module one, you need to state the emerging theory you intend to apply to your lesson development. You can use this resource as a guide for choosing your emerging theory. In addition, this resource guide includes a review of learning theories from EDU-570 and the introduction of emerging theories for EDU-655.

- As you peruse this document, please remember that you need to choose **one** emerging theory for your final project.
- Read through the guide by choosing a theory in mind.
- If you need to do further research on a given theory, use the Research Starter in the Shapiro Library. The research guides are linked to every theory.

**Video:** [<Hyperlinked Video Title>](#) (0:00)

N/A

**Article:** [The Understanding by Design Guide to Creating High-Quality Units](#)

If you need a refresher on the UbD template, please use this resource for creating high-quality units and examples. <http://www.learningpersonalized.com/wp-content/uploads/2016/04/UbD-Unit->

[Samples-DG.pdf](#)

### Additional Support (Optional)

**Website:** [<Hyperlinked Website Title>](#)

N/A

### GETTING STARTED

Use Standard *Getting Started* forum: Introduce yourself briefly. Discuss your prior knowledge of and interest in the course topic. Also, explain how this course will assist you in your career path.

*Getting Started* is incorporated into the first graded discussion

Use custom *Getting Started* forum: Introduce yourself briefly. Discuss your prior knowledge of and interest in the course topic. Also, explain how this course will assist you in your career path. Define your personal curriculum theory and the basis for it.

### TASK LIST

<Includes order of lesson tasks and assessments to be completed in the module.>

Task Number, Title, and Student-Facing Language to Appear in Blackboard	Tool in Blackboard	ID Workspace	Learning Objective Map to C.O.
<b>Learning Module Page:</b> 1-1 Review the Final Project Please review the Final Project Guidelines and rubric, Unique Learners Document, Emerging Theories Resource Document, and the Lesson Template to prepare for work on this module. Please post any questions to the General	Ungraded Assignment		LO#.#: <Text> N/A

Discussion Forum.			
<b>Tool Page/2<sup>nd</sup> Landing Page:</b> N/A			
<b>Learning Module Page:</b> 1-2 Discussion: Emerging Curriculum Theory For the final project, you will select one emerging curriculum theory from those you will read about this week to guide your lesson plan development. In this discussion, you will define which emerging theory you plan to use for the final project and the reason(s) why.  To complete this assignment, review the Discussion rubric document.	Discussion		LO# 1.1: <Text> Define the emerging curriculum theory that is the basis for designing a curriculum unit for three categories of unique learners in a specific educational setting.
<b>Tool Page/2<sup>nd</sup> Landing Page:</b> <Instructions for Tool only> After reading about emerging curriculum theories in the Emerging Theories Resource Document, define the emerging theory you selected for guiding the development of your three lessons for the final project and the reason(s) why. For subsequent posts, respond to your peers' posts.			
<b>Learning Module Page:</b> 1-3 Assignment: Introduction to Unit Draft For your final project, you will create a unit of three lessons using the provided lesson template for three groups of unique learners.	Assignment		L.O. #1.2 Draft the introduction to a curriculum unit for

<p>These three lessons will be designed for one of the educational settings you have selected. For this assignment, you will draft the introduction to your three lessons. Please review. Once you receive feedback on your introduction, you will revise it and submit it in final form with the final project in Module Nine. This assignment will be graded as complete/incomplete.</p>			<p>three unique learners in a specific educational setting.</p>
<p><b>Tool Page/2<sup>nd</sup> Landing Page:</b>  In your introduction to your unit of three lessons, explain whether your unit is based on your EDU-570 unit concept and how you intend to expand it or explain your new unit title and concept.</p> <ul style="list-style-type: none"> <li>• Briefly identify and describe the three categories of unique learners for whom you will design your lessons. Click here to review the categories of unique learners.</li> <li>• As described in the final project, state which of the educational settings where your lessons will be delivered in.</li> <li>• State the grade level or describe the learning audience for your unit.</li> <li>• Define the emerging theory you intend to apply to your lesson development. Use what you learned from the readings and the discussion this week to inform your selection.</li> </ul>			

**FACILITATION GUIDE NOTES**

<Module specific notes here. These notes must be copied exactly in the Facilitation Guide (F.G.). Any updates to the F.G. should be reflected here.>

The students who take this course may come from differing curriculum knowledge and experience backgrounds. Specifically, at SNHU, many students may have taken various curriculum courses; however, all students will have taken the prerequisite, EDU-570. Those who have educational experience will most likely grasp the concept of emerging theories quite easily. In contrast, those who

may not have much educational experience may struggle with terms and concepts. You must keep this in mind so that proper and effective feedback can be given to the learners.

## **MODULE TWO: DIFFERENTIATING FOR THE UNIQUE LEARNER**

### **MODULE OVERVIEW**

In Module Two, we will explore unique learners for emerging theories, curriculum design, and differentiation of instruction. Differentiated Instruction (DI) is a term that every teacher has heard during professional development or pre-service training. A widely accepted definition of differentiation is 'the process by which differences between learners are accommodated so that all students in a group have the best possible chance of learning.'

It is essential to reflect on differentiated instruction as you design a curriculum. It is not unusual for teachers to have students ranging in two or three math and reading levels and differing levels in other subjects. Moreover, teachers face a daily struggle with record keeping and reporting student needs and the task of producing accommodations. In addition, teachers need to differentiate between the gifted and those in special education.

The important thing to remember is that differentiation should be quantitative (relating to, measuring, or measured by the quantity of something rather than its quality), but qualitative (relating to, measuring, or measured by the quality of something rather than its quantity). It is not enough to give struggling students adapted or modified work. Teachers need to tailor assignments to match the needs of students. With online learning, teachers also need to differentiate instruction through digital and technological means.

Assessment must also be a piece of the differentiation puzzle. By conducting informal assessments (formative), teachers can gather assessment data, alter what they teach, and differentiate information. To truly enact change in differentiating instruction, it must first become an integral and established part of teaching. Differentiation can not just be another strategy in a teacher's toolbox. It needs to be a way of life in the classroom, a daily occurrence without hesitation.

Module Two will review DI and allow you to focus in our discussion on three groups of unique learners for whom you plan to design your unit of three lessons. In Module One, you were introduced to emerging theories and asked to choose one for your lesson creation. You were reacquainted with the adapted UbD lesson template, which you will be using through this course. You wrote the introduction to your unit for the final project that included an explanation of whether your unit is based on your existing EDU-570 unit concept and how you intend to expand it or an explanation of your new unit title and concept. You selected the three categories of unique learners for whom you will design your



lessons. You selected which of the given educational settings where your lessons will be delivered. Finally, you selected the emerging theory you intend to apply to your lesson development.

In this module, you will apply the emerging theory you selected as you complete Milestone One of the final projects. You will use the adapted UbD template to draft your first lesson for your three categories of unique learners for the educational setting you defined.

**BY THE END OF THIS MODULE, YOU WILL MEET THESE LEARNING OBJECTIVES:**

L.O. #	Learning Objectives
1.3	Explain how to differentiate a lesson for three unique learners for a specific education setting based on an emerging curriculum theory.
1.4	Draft a differentiated lesson for three unique learners based on an emerging curriculum theory and technologies for a specific educational setting.

**PLAN AT A GLANCE**

This is the recommended plan for completing the reading assignments and activities within the module. Additional information can be found in the Reading and Resources section and the task list.

Review the module resources.
Post your initial post to the discussion.
Respond to your peers' postings.
Submit Milestone One.

**READING AND RESOURCES**

<List reading and resources below as you would like them to appear in the Reading and Resources section. If you **only** want a resource to appear in a specific activity description (and not in the Reading and Resources section), do not include the resource in the table below. Throughout the module, these resources will support or complete various tasks.>

## Required Resources

**Textbook:** *Curriculum Leadership*, Chapter 15

<Guided reading/viewing questions>

- What are the strategies you use for differentiating instruction for unique learners?
- How do you use technology for differentiating for unique learners?
- What is differentiated instruction, and how does it help unique learners?
- What are approaches being used for gifted and talented students?
- Identify digital strategies for unique learners and explain why you think they might be effective.

**Video:** [Adapting a Differentiated Lesson Plan from a Traditional Lesson Plan](#) (00:09:29)

This video illustrates that student needs are the motivation for differentiated instruction. Building a sense of community among students and the teacher in a positive learning environment is the foundation for differentiated instruction. A focused, high-quality curriculum provides the compass for differentiated instruction. Frequent formative assessment is the primary tool for gathering how and why to differentiate instruction. In addition, well managed, flexible grouping provides a mechanism for differentiated instruction.

<Guided reading/viewing questions>

From the video, name some of the "low prep" and "high prep" differentiation strategies that can be used to design and deliver respectful tasks that adjust the content, process, and products for students' readiness, interests, and learning profiles.

## Additional Support (Optional)

**Website:** [Individuals with Disabilities Education Act](#)

The Individuals with Disabilities Education Act (IDEA) is a law that makes available a free appropriate public education to eligible children with disabilities throughout the nation and ensures special education and related services to those children. The IDEA governs how states and public agencies provide early intervention, special education, and related services to more than 6.5 million eligible infants, toddlers, children, and youth with disabilities. Children and youth ages three through 21 receive special education and related services under IDEA Part B. Children born through age two with disabilities and their families receive early intervention services under IDEA Part C.

<Includes order of lesson tasks and assessments to be completed in the module.>

Task Number, Title, and Student-Facing Language to Appear in Blackboard	Tool in Blackboard	ID Workspace	Learning Objective Map to C.O.
<p><b>Learning Module Page:</b>            2-1 Discussion: Categories of Unique Learners            In Module One, you selected three categories of unique learners for whom you will design a unit of three lessons for your final project. In this discussion, you will have the opportunity to discuss your selection of three categories and explain your plan to differentiate the first lesson. To complete this assignment, review the Discussion rubric document.</p>	<p>Discussion</p>		<p>LO1.3: &lt;Text Explain how to differentiate a lesson for three unique learners for a specific education setting based on an emerging curriculum theory.</p>
<p><b>Tool Page/2<sup>nd</sup> Landing Page:</b>            &lt;Instructions for Tool only&gt;            For your initial post, state the three categories of unique learners you will use to design the final project, why you chose them, and the selected education setting. Explain how you would differentiate instruction for your three categories of unique learners based on the emerging theory you selected.             For subsequent posts, please respond to your peers' postings.            To complete this assignment, review the Discussion rubric document.</p>			
<p><b>Learning Module Page:</b>            2-2 Milestone One: Lesson One            You will submit a draft of Lesson One for Milestone One using the provided lesson template. You will revise it after receiving</p>	<p>Assignment</p>		<p>LO1.4            Draft a differentiated lesson for three unique</p>

<p>feedback from your instructor before submitting it as part of the final project in Module Nine.</p> <p>To complete this assignment, review the Milestone One Guidelines and rubric document.</p>			<p>learners based on an emerging curriculum theory and emerging technologies for a specific educational setting.</p>
<p><b>Tool Page/2<sup>nd</sup> Landing Page:</b> &lt;Instructions for Tool only&gt;</p>			

### FACILITATION GUIDE NOTES

<Module specific notes here. These notes must be copied exactly in the Facilitation Guide (F.G.). Any updates to the F.G. should be reflected here.>

Students will bring prior knowledge from EDU-570 on differentiated instruction for diverse students. The discussion for this module allows the student to focus on the three categories they chose for the final project. In this module, they will also submit Milestone One, the draft of their first lesson.

## Module Three: Curriculum Design and Theory Amplified by Technology

### MODULE OVERVIEW

In Module Two, you had the opportunity to discuss how you would differentiate instruction for your three categories of unique learners. You also submitted the draft of Lesson One as Milestone One of the final project. In this module, you will build your knowledge of research-based technology that will support your work on the first part of the reflection segment of your final project on social learning platforms and the technology segment of your lesson plans.

In Module Three, we will explore several types of technology, including social learning platforms, blogs, wikis, and the STEM/STEAM (Science, Technology, Engineering, Math/Science, Technology, Engineering, Arts, Math) movement. In this module, we need to remember that although blogs and wikis, in some cases, predated social learning platforms, they are considered a part of social learning

platforms. An optional part of this week's material is the STEM/STEAM movement. As it is optional, please review the materials if the STEM/STEAM movement is interesting.

**Please review the Research Starter: [Social Media as a Teaching and Learning Tool](#)**

In part because of greater social media participation rates among young people, its effects upon the education system have been especially noteworthy. In recent years, educators have begun to embrace various social learning platforms for their personal use and as a tool to connect with their students and help their students collaborate. Social media is also assisting educators in finding new ways for students to conduct research because the information that people share in online communities represents a largely untapped source of information.

**BLOG** - A blog (a blend of the term weblog) is an online journal. Blog entries are typically displayed in reverse chronological order. The activity of updating a blog is "blogging," and someone who keeps a blog is a "blogger." Blogs can be public or private, and it is not uncommon to have the ability for readers to leave comments on a public blog. One of the most popular blogs on the web is The Huffington Post (<http://www.huffingtonpost.com>).

**WIKIS** - Wikis are collaborative content management systems (CMS) that allow users to create and edit interlinked webpages freely. Wikis can be used for personal note-taking to collaborate online, assemble online communities, and manage a traditional website. One of the most extensive and most "famous" wikis is Wikipedia, the free encyclopedia anyone can edit (<http://www.wikipedia.org>).

Authentic learning experiences are created around genuine, outside audiences and meaningful purposes. They meet the Common Core, engage students in critical thinking and 21st Century learning, teach essential skills such as research and collaboration, and improve student learning. Authentic learning can rely on technology to develop typical scenarios that learners encounter in real-world settings. Online authentic learning experiences often integrate asynchronous and synchronous communication and social learning platforms for teamwork, including collaborative online investigations, resource sharing, and knowledge construction. Social media tools, such as blogs and wikis can help learners find a broader community to share information and resources.

**BY THE END OF THIS MODULE, YOU WILL MEET THESE LEARNING OBJECTIVES:**

L.O. #	Learning Objectives
4.1	Explain how to integrate social learning platforms, blogs, and wikis into a lesson for three categories of unique learners.

4.2	Describe how to integrate social learning platforms to support authentic learning in a lesson differentiated for three categories of unique learners.
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### PLAN AT A GLANCE

This is the recommended plan for completing the reading assignments and activities within the module. Additional information can be found in the Readings and Resources section and the task list.

Review the module resources.
Post your initial post to the discussion.
Respond to your peers' postings.
Submit your short paper

### READING AND RESOURCES

<List reading and resources below as you would like them to appear in the Reading and Resources section. If you **only** want a resource to appear in a specific activity description (and not in the Reading and Resources section), do not include the resource in the table below. Throughout the module, these resources will support or complete various tasks.>

#### Required Resources

**Textbook:** *Contemporary Curriculum, In Thoughts and Actions*, Chapter 6 (8 pages)

- How would you justify using social learning platforms for global communication while meeting curricular goals?
- How would you participate in online opportunities (blogs and wikis) to share academic goals and tackle real-world problems through distant collaboration or social learning platforms?
- How would you protect student privacy when using social learning platforms?
- What are some strategies to deal with cyberbullying when using social learning platforms?

**Video:** [Blogs, Wikis, Podcasts, and Other Powerful Web Tools for Classrooms](#) (01:15:26)

This video examines the use of technology, blogs, and other resources that give students access to information, including learning from people worldwide.

### Additional Support (Optional)

**Article:** [A Journey from STEM to STEAM: A Middle School Case Study](#)

This article examines the initial journey of a middle school in South Carolina from a STEM (science, technology, engineering, and math) curriculum to a STEAM (STEM+art) curriculum.

### TASK LIST

<Includes order of lesson tasks and assessments to be completed in the module.>

Task Number, Title, and Student-Facing Language to Appear in Blackboard	Tool in Blackboard	ID Workspace	Learning Objective Map to C.O.
<p><b>Learning Module Page:</b> 3-1 Discussion: Researched-Based Technology In Module Two, you submitted the draft of Lesson One as part of your final project. This week's discussion and short paper combined with the module's readings and resources should enhance your knowledge of social learning platforms. To complete this assignment, review the Discussion rubric document.</p>	Discussion		LO4.1<Text> Based on research, explain how to integrate social learning platforms into a lesson for three unique learners.
<p><b>Tool Page/2<sup>nd</sup> Landing Page:</b> &lt;Instructions for Tool only&gt; Cite your research sources for your post. For your initial post based on your research, explain how you might integrate social learning platforms into your first lesson to benefit the three categories of unique learners for whom you are designing lessons and justify using them. How would the integration of these technologies change the role of the instructor? For subsequent posts,</p>			

respond to your peers.			
<p><b>Learning Module Page:</b>  3-2 Reflection Draft: Using Social Learning Platforms to Differentiate instruction  For the final project, you will write a reflection on three research-based technologies: social learning platforms, virtual and augmented technologies. For this paper, you will describe how you will integrate social learning platforms into Lesson One to support authentic learning for your three categories of unique learners. To complete this assignment, review the Module Three Short Paper rubric document.</p>	Short Paper		LO4.2 <Text> Describe how to use social learning platforms to differentiate instruction for three categories of unique learners.
<p><b>Tool Page/2<sup>nd</sup> Landing Page:</b>  &lt;Instructions for Tool only&gt;</p>			

**FACILITATION GUIDE NOTES**

Technology, being a rather large topic, is divided between Module Three and Module Four. The "hierarchy" of concepts in the two units is as follows:

Social Learning Platforms

- Social Media
- Blogs
- Wikis
- STEM/STEAM: Optional

Virtual and Augmented Technologies and Learning Environment:

- Game-Based Learning



## MODULE OVERVIEW

In Module Three, we had the opportunity to explore social learning platforms. Social media learning allows students more options to be creators and collaborators in the classroom. Social learning platforms are also natural for students to create, engage, and share their ideas through social learning platforms, blogs, and wikis.

In Module Four, we will explore how virtual and augmented technologies, and game-based learning have found their way into the classroom, enhancing traditional learning environments by blurring the physical and digital world. In addition to creating a comprehensive, rigorous, and coherent curriculum, a teacher also creates a personalized and motivating learning environment for every student. Reducing the gap between the real and digital world makes the learning environment more flexible and adaptive. To get started, we will review the traditional learning environment by examining this brief Research Starter on Learning Environments:

**Research Starter: Learning Environments:** A learning environment comprises where and how a student learns, physically, culturally, and contextually. The term is often referred to as the word "classroom" in modern society because it encompasses more than just the conventional perception of a brick-and-mortar school setting. A learning environment encapsulates the culture of the setting beyond just its physical characteristics, incorporating how participants interact with each other and the methods teachers use to impart knowledge and instill a lesson. A learning institution's policies and organizational structure are also components helping to shape the learning environment.

Virtual reality (V.R.) and augmented reality (A.R.) can transform the way educators communicate with students. But where do we start? With so many devices, information, and experiences available on the internet, virtual and augmented technologies can be overwhelming. The Research Starters and accompanying video (V.R. and A.R.) will provide you with each technology's basic ideas and concepts.

### **Research Starter: [Virtual Reality](#)**

The applied science of virtual reality (V.R.) engages in the design and engineering of and research related to special immersive interactive computer systems. These virtual reality systems synthesize environments, or worlds, simulations of reality that are usually rendered using three-dimensional computer images, sounds, and force feedback. Virtual reality applications are used for pilot and astronaut training, entertainment, communication, teleoperation, manufacturing, medical and surgical training, experimental psychology, psychotherapy, education, science, architecture, and the arts. This technology submerges humans into altered environments and processes intensifies experience and imagination, thereby augmenting research and education. Virtual reality training systems can simplify and improve manufacturing and maintenance while simultaneously reducing risk exposure.

**Watch Video:** [Virtual Reality](#) produced by Switch International, in In Short: A Lesson On Almost Everything, Episode 24 (03:00)

**Research Starter:** [What is Augmented Reality?](#)

Augmented reality (A.R.) refers to any technology that inserts digital interfaces into the real world. For the most part, the technology has included headsets and glasses that people wear to project interfaces onto the physical world, but it can also include cell phones and other devices. In time, A.R. technology could be used in contact lenses and other small wearable devices. *Pokémon Go* represents one of those moments when a new technology — in this case, augmented reality or A.R., which fuses digital technology with the physical world — breaks through from a niche toy for early adopters to something much bigger. The idea behind the technology is to overlay digital imagery on a person's view of the natural world using a smartphone screen or a headset.

**Video:** [App \(A.R.\) helps people understand concentration camp conditions](#)

**Duration:** 6:52

**BY THE END OF THIS MODULE, YOU WILL MEET THESE LEARNING OBJECTIVES:**

L.O. #	Learning Objectives
4.3	Explain how to integrate virtual and augmented technologies into a lesson for three categories of unique learners based on research
4.4	Describe how to use virtual and augmented technologies to differentiate instruction for three categories of unique

**PLAN AT A GLANCE**

This is the recommended plan for completing the reading assignments and activities within the module. Additional information can be found in the Reading and Resources section and the task list.

Review the module resources.
Post your initial post to the discussion.
Respond to your peers' postings.
Submit your short paper

## READING AND RESOURCES

<List reading and resources below as you would like them to appear in the Reading and Resources section. If you **only** want a resource to appear in a specific activity description (and not in the Reading and Resources section), do not include the resource in the table below. Throughout the module, these resources will support or complete various tasks.>

### Required Resources

#### Guiding Questions:

- Try to remember an enjoyable learning environment from your childhood school days. What made it satisfying?
- Have you engaged in game-based learning? If so, how?
- How might you utilize virtual or augmented technologies or game-based learning in your unit concept?
- How would V.R. and A.R. be used to enhance academic instruction?
- How do augmented and virtual technologies differ?
- How do A.R. and V.R. work together?

#### Article: Research Starter: [Game-Based Learning](#)

Virtual and augmented technologies have been on the rise in teaching, exploring different means of interaction and student engagement. Virtual and augmented technologies provide students with adequate access to information through game-based learning. Game-based learning develops a game in a teaching and learning context, aiming to help students acquire knowledge in a subject area.

Games of all stripes have long been of interest by educators to engage and motivate students to learn new concepts and apply their knowledge in a meaningful context. Learning theories from the sociocultural cognition family of learning theories points to the potential games have to motivate, engage, and provide authentic learning experiences. However, despite this promise, games (particularly video games) have struggled to penetrate the formal education marketplace. Furthermore, some scholars have suggested that applying game mechanics towards non-game environments is a manipulative and exploitive practice. Nonetheless, games are an increasingly important medium where school-aged children spend much of their time. It is important for educators and educational researchers to understand games in the context of this greater media landscape and what it means for the future of learning.

**Article:** Kathy Schrock Guide on Discovery Education - We hear a lot of talk about using augmented

and virtual technologies in the classroom to support teaching and learning. Here are two Kathy Schrock web resources showcasing the difference between them. Augmented reality is a technology that layers computer-generated enhancements on top of an existing reality to make it more meaningful through the ability to interact with it. Virtual reality is an artificial, computer-generated simulation or re-creation of a real-life environment...It immerses the users by making them feel like they are experiencing the simulated reality firsthand, primarily by stimulating their vision and hearing.

[Virtual Reality in the Classroom](#)

[Augmented Reality in the Classroom](#)

Provide examples of how V.R. creates and enhances an imaginary reality for gaming, entertainment, and play (Such as video and computer games, 3D movies, head-mounted display).

Provide examples of how V.R. enhances training for real-life environments by creating a simulation of reality where people can practice beforehand (Such as flight simulators for pilots).

### TASK LIST

<Includes order of lesson tasks and assessments to be completed in the module.>

Task Number, Title, and Student-Facing Language to Appear in Blackboard	Tool in Blackboard	ID Workspace	Learning Objective Map to C.O.
<p><b>Learning Module Page:</b>            4-1 Discussion: Virtual and Augmented Technologies            In this module, we continue our discussion of newer technologies that we started in Module Three. Our focus will be on virtual and augmented technologies.</p> <p>To complete this assignment, review the Discussion rubric document.</p>	Discussion		LO 4.3: Explain how to integrate virtual and augmented technologies into a lesson for three

<p><b>Tool Page/2<sup>nd</sup> Landing Page:</b> &lt;Instructions for Tool only&gt; Cite your research sources for your post. For your initial post based on your research, explain how you might integrate virtual and augmented technologies into your first lesson to benefit the three categories of unique learners for whom you are designing lessons. How would the integration of these technologies change the role of the instructor? For subsequent posts, respond to your peers.</p>			<p>unique learners based on research.</p>
<p><b>Learning Module Page:</b> 4-2 Reflection Draft: Using Virtual and Augmented Reality to Differentiate instruction For the final project, you will write a reflection on three research-based technologies: social learning platforms, virtual and augmented technologies. In Module <b>Three</b>, you drafted your description of how you will integrate social learning platforms into your Lesson One plan. For this paper, you will describe how you will integrate virtual and augmented reality into Lesson One to support authentic learning for your three categories of unique learners  To complete this assignment, review the Module Four short paper rubric document.</p>	<p>Short paper</p>		<p>LO4.4 Describe how to use virtual and augmented technologies to differentiate instruction for three categories of unique</p>
<p><b>Tool Page/2<sup>nd</sup> Landing Page:</b> &lt;Instructions for Tool only&gt;</p>			

**FACILITATION GUIDE NOTES**

<Module specific notes here. These notes must be copied exactly in the Facilitation Guide (F.G.). Any updates to the F.G. should be reflected here.>

## MODULE FIVE: DATA, DECISIONS, AND ASSESSMENTS

### MODULE OVERVIEW

Welcome to Module Five: Data, Decisions, and Assessments. This week, we will explore data-driven decision-making (DDDM). DDDM refers to how educators examine assessment data to identify student strengths and weaknesses and apply those findings to instructional practice. This process of critically examining curriculum and instructional practices relative to students' actual performance on standardized tests and other assessments yields data that help teachers make more accurately informed instructional decisions (Mertler, 2014). Local assessments — including summative assessments (tests and quizzes, performance-based assessments, student portfolios) and formative assessments (homework, teacher observations, student responses, and reflections)—are also viable sources of student data.

Essentially, DDDM refers to a continuous cycle of identifying, collecting, combining, analyzing, interpreting, and acting upon educational data from different sources to report, evaluate, and improve schools' resources, processes, and outcomes. Educational data can be broadly defined as "information collected and organized to represent some aspect of schools. This can include any relevant information about students, parents, schools, and teachers derived from qualitative and quantitative methods of analysis." (Lai & Schildkamp, 2013 - p. 10)

Lai and Schildkamp (2013 - pg 11-12) categorized educational data as follows: input data, process data, context data, and outcome data. The following presents indicative examples of educational data for each category:

**Input data:** Student characteristics, such as demographics, prior academic performance, transfer records, native language.

**Data Process:** Data generated during the teaching, learning, and assessment processes, both within and beyond the physical classroom premises, such as lesson plans, methods of assessments, classroom management.

**Context data:** The curriculum, such as subject syllabus (including learning outcomes) and additional educational programs.

**Outcome data:** Student achievements in classroom-based formative assessments, homework, standardized tests, national exams. Students' well-being and social and emotional development include safety, support, respect for diversity, and special needs—graduate data on employment after graduation or further academic studies.

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## References

Lai, M. K., & Schildkamp, K. (January 01, 2013). Data-based Decision Making: An Overview.

Mertler, C. A. (2014). *The data-driven classroom: How do I use student data to improve my instruction?*.

By the end of this module, you will meet these learning objectives:

L.O. #	Learning Objectives
2.1	Explain how data informs the design of the curriculum for three categories of unique learners.
1.4	Draft a differentiated lesson for three categories of unique learners based on an emerging curriculum theory and emerging technologies for a specific education setting

### PLAN AT A GLANCE

This is the recommended plan for completing the reading assignments and activities within the module. Additional information can be found in the Reading and Resources section and the task list.

Review the module resources.
Post your initial post to the discussion.
Respond to your peers' postings.
Submit Milestone 2

### READING AND RESOURCES

<List reading and resources below as you would like them to appear in the Reading and Resources section. If you **only** want a resource to appear in a specific activity description (and not in the Reading and Resources section), do not include the resource in the table below. Throughout the module, these resources will support or complete various tasks.>

## Required Resources

**Textbook:** *Curriculum Leadership*, Chapter 11, Page 393: Using Data-Driven Programs

- Why are data-informed decisions important?
- Name some of the data elements for your unique learners that you can use in making data-informed decisions.
- Discuss the validity and reliability of measurement instruments.
- How can educators use data to make data-informed decisions regarding curriculum design?
- Why is it important to understand data-informed decisions in terms of unique learners?

**Video:** [Data-Decision Making](#) (08:58)

### Sage Video:

Data-Driven Decision Making

Academic: Alex J. Bowers

Content Type: Tutorial

Duration: 00:08:58

Publisher: SAGE Publications Ltd. (2015)

DOI: <http://dx.doi.org/10.4135/9781473930841>

- What are different forms of data that are available in schools?
- How can educators analyze different forms of data?  
How do we take these different forms of data and analysis and turn them into evidence-based practice?
- How can we build appropriate professional development for teachers in data-based decision-making?

**Video:** [Evidence-Based Policy Making in Education](#)

- How is looking at data used to shape what teachers and students do in the classroom?
- How do governing bodies bureaucratize the ways data is collected, presented, and interpreted—or manipulated?



**Additional Support (Optional)**

**Website:** <Hyperlinked Website Title>

<Description & Context>

**TASK LIST**

<Includes order of lesson tasks and assessments to be completed in the module.>

<b>Task Number, Title, and Student-Facing Language to Appear in Blackboard</b>	<b>Tool in Blackboard</b>	<b>ID Workspace</b>	<b>Learning Objective Map to C.O.</b>
<p><b>Learning Module Page:</b> 5-1 Discussion: Using data to design curriculum for unique learners In Module Three, you drafted Lesson One, including assessments. In this module, you will submit your draft of Lesson Two. Let's focus on evaluation and data in this discussion to inform a possible revision of the assessments in Lesson One and your formulation for Lesson Two. To complete this assignment, review the Discussion rubric document.</p>	Discussion		LO#.#: <Text>
<p><b>Tool Page/2<sup>nd</sup> Landing Page:</b> &lt;Instructions for Tool only&gt; For your initial post, explain:</p> <p>1-What input data for your three categories of unique learners did you use to shape your assessments?</p> <p>2-In terms of context data, how did your learning outcomes for your three categories of</p>			

<p>unique learners shape your three types of assessments?</p> <p>3-What other data would be relevant to your curriculum design for your three categories of unique learners.</p> <p>For subsequent posts, respond to your peers.</p>			
<p><b>Learning Module Page:</b> 5-2 Milestone Two: Lesson Two You will submit a draft of Lesson Two for Milestone Two using the provided lesson template. You will revise it after receiving feedback from your instructor before submitting it as part of the final project in Module Nine. To complete this assignment, review the Milestone Two Guidelines and Rubric document.</p>	Assignment		LO#.#: <Text>
<p><b>Tool Page/2<sup>nd</sup> Landing Page:</b> &lt;Instructions for Tool only&gt;</p>			

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<Module specific notes here. These notes must be copied exactly in the Facilitation Guide (F.G.). Any updates to the F.G. should be reflected here.>

<List any texts or learning resources required for student purchase. Follow the format used in the syllabus>

Contemporary Curriculum: In Thought and Action, 8th Edition

Author: Glatthorn/Boschee/Whitehead/Boschee

Publisher: SAGE Publications

ISBN-13: 978-1118916513

ISBN-10: 1118916514

Title: Curriculum Leadership: Strategies for Development and Implementation 4th Edition

Author: Allan A. Glatthorn (Author), Floyd A. Boschee (Author), Bruce M. Whitehead (Author), Bonni F. Boschee (Author)

Publisher: SAGE Publications

ISBN-13: 978-1483347387

ISBN-10: 1483347389