Content Analysis Goals and Objectives - Educational Myths

[Winthrop's Learning Design and Technology Graduate Program, LTEC 642]

Project Resources

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Content Analysis Section

Major sections and Sub Sections:

1. Recognize the myth of Learning Styles, and be able to identify and explain the reasons why it is a myth, the consequences, and possible solutions.
2. Recognize the myth of Digital Natives, and be able to identify and explain the reasons why it is a myth, the consequences, and possible solutions.
3. Recognize the 10-20-30-50-70-90 myth, and be able to identify and explain the reasons why it is a myth, the consequences, and possible solutions.

Content Analysis
1. **Learning Styles**
    1.1. Myth: Individuals have distinct or preferred learning styles (VARK), and teaching should be tailored to match these styles.
        1.1.1. Visual learners learn best through pictures and diagrams.
        1.1.2. Auditory learners learn best through lectures and discussions.
        1.1.3. Reading learners learn best through reading.
        1.1.4. Kinesthetic learners learn best through hands-on activities.
    1.2. Reason(s):
        1.2.1. Lack of Evidence: Despite decades of research, no consistent evidence shows that individuals have fixed learning styles that significantly impact their ability to learn.
    1.3. Consequence(s):
        1.3.1. Oversimplification of Learning: Learning is a complex process involving various cognitive functions and senses, not limited to a single "style."
        1.3.2. Ineffective Instruction: Focusing on specific learning styles can restrict teaching methods and limit exposure to other valuable learning approaches.

  1.3.3. Negative Self-Perceptions: Students labeled with a particular learning style might feel limited or discouraged if they struggle in areas outside their supposed "strength."

 1.4. Solution(s):

  1.4.1. Vary Instruction: Use diverse teaching methods like lectures, visuals, discussions, and hands-on activities to cater to different learning preferences without being limited by specific styles.

  1.4.2. Personalize Learning: Create learning experiences that cater to individual needs and pace, but not solely based on assumed learning styles.

  1.4.3. Metacognition: Develop students' self-awareness of their learning process and encourage them to explore different strategies to find what works best for them.

2. Digital Natives

 2.1. Myth: Younger generations, having grown up with technology, are inherently more skilled in using digital tools for learning.

  2.1.1. Youth possess unique cognitive abilities for digital multitasking compared to older generations.

  2.1.2. Youth possess unique cognitive abilities for digital information processing compared to older generations.

  2.1.3. Youth possess unique cognitive abilities for navigating digital spaces compared to older generations compared to older generations.

 2.2. Reason(s):

  2.2.1. Not All Young People Are Alike: While some young people are indeed tech-savvy, socio-economic background, access to technology, and individual motivation significantly impact their digital skills and engagement. Generalizing about an entire generation as "digital natives" ignores these crucial factors.

  2.2.2. Skills Vary More Than Age: Digital literacy encompasses diverse skills like critical thinking, information evaluation, online safety, and responsible behavior. These skills require explicit instruction and practice, not just passive exposure to technology.

  2.2.3. Technology Evolves Faster Than Generations: The digital landscape continuously changes, and even young people might struggle to keep up with the latest trends and tools.

 2.3. Consequence(s):

  2.3.1. Unrealistic Expectations: Assuming "digital nativeness" can lead to neglecting essential digital literacy instruction in schools, leaving students vulnerable to online risks and misinformation.

  2.3.2. Widening Inequality: Ignoring the digital divide perpetuates educational inequities, further disadvantaging students without access or support.

  2.3.3. Stereotyping and Discrimination: Labeling generations as "digital natives" or "digital immigrants" can create unnecessary division and hinder collaboration across age groups.

2.4.   Solution(s):

    2.4.1.   Focus on Digital Literacy Skills: Emphasize teaching specific digital skills like critical thinking, problem-solving, responsible online behavior, and information evaluation, not relying on assumed "nativeness."

    2.4.2.   Individualized Learning: Recognize that digital skills vary within and across generations. Provide differentiated instruction and support based on individual needs and learning styles.

    2.4.3.   Bridge the Generational Divide: Encourage intergenerational collaboration to foster technology use and learning across age groups.

    2.4.4.   Promote Responsible Use of Technology: Equip all students with the knowledge and skills to navigate the digital world safely, ethically, and productively.

3.   **The 10-20-30-50-70-90 Myth**

3.1.   Myth: Learners remember 10% of what they read, 20% of what they hear, 30% of what they see, 50% of what they hear and see, 70% of what they say and write, and 90% of what they say and do.

3.2.   Reason(s):

    3.2.1.   It stems from an outdated interpretation of "The Cone of Experience" developed by Edgar Dale in 1946. Despite Dale's warnings against taking it literally, percentages were later added, making it sound definitive when it wasn't.

    3.2.2.   Lack of Evidence: No robust research supports these specific figures. Learning is complex and individual, influenced by diverse factors like prior knowledge, engagement, context, and retrieval strategies.

    3.2.3.   Fraudulent statements and dubious citations have been widely accepted at face-value for decades in the field of education.

3.3.   Consequence(s):

    3.3.1.   Oversimplification: Reducing learning to neat percentages ignores the multifaceted nature of memory and learning.

    3.3.2.   Misleading Implications: The percentages might lead to neglecting valuable learning methods based on assumed ineffectiveness.

3.4.   Solution(s):

    3.4.1.   Learning is Active and Individualized: Understand that effective learning involves actively engaging with information, not passively receiving it. Engaging multiple senses and modalities can support different learners.

        3.4.1.1.   Use diverse learning methods like lectures, discussions, visuals, activities, and practice to cater to different learning preferences and reinforce understanding.

    3.4.2.   Retrieval Practice: Regularly revisiting and using learned information strengthens memory and understanding, regardless of the initial learning method.

        3.4.2.1.   Integrate activities that test understanding and encourage students to actively recall information.

> 3.4.3. Effective Instruction Matters: The delivery and context of information significantly impact how well it's learned and retained.
>> 3.4.3.1. Encourage deep processing and meaningful connections with information, rather than rote memorization.

Educators and policymakers should be aware of these myths and base their practices on current research and evidence to create effective and inclusive learning environments.

Goals and Objectives Section: Assignment (A2)

Course Goal: By the end of the course, learners will be able to identify three different educational myths (Learning Styles, Digital Natives, and the 10-20-30-50-70-90 myth), explain the possible detrimental consequences of the myths, and be able to devise possible solutions or ideologies to better serve learning communities.

1. **Goal: Recognize the myth of Learning Styles, and be able to identify and explain the reasons why it is a myth, the consequences of the myth, and how to develop possible solutions or ideologies that better serve learning communities.**
   1.1. Objectives:
      1.1.1. Without notes, TLWBAT identify and explain the myth of Learning Styles.
         1.1.1.1. Without notes, TLWBAT explain what VARK (visual, auditory, reading, and kinesthetic) "learning styles" are. *as ...*
      1.1.2. Without notes, TLWBAT explain how lack of evidence regarding Learning Styles influences learners, educators, and the education community at large. *as ...*
      1.1.3. Without notes, TLWBAT explain how oversimplification, ineffective instruction, and negative self-perceptions can be consequences of the myth. *as ...*
      1.1.4. Given this new breakdown of the myth, TLWBAT identify and implement strategies that can combat the possible detrimental side-effects of perpetuating the myth, such as varying instruction, personalizing learning experiences, and cultivating students' metacognition.
2. **Goal: Recognize the myth of Digital Natives, and be able to identify and explain the reasons why it is a myth, the consequences of the myth, and how to develop possible solutions or ideologies that better serve learning communities.**
   2.1. Objectives:
      2.1.1. Without notes, TLWBAT identify and explain the myth of Digital Natives.
         2.1.1.1. Without notes, TLWBAT explain the myth's idea that younger generations, having grown up with technology, are inherently more skilled in using digital tools for learning.
      2.1.2. Without notes, TLWBAT recognize and explain how socio-economic background, access to technology, and individual motivation significantly impacts digital skills and engagement and that generalizing ignores these crucial factors.

2.1.3. Without notes, TLWBAT explain how true digital literacy encompasses diverse skills like critical thinking, information evaluation, online safety, and responsible behavior and that these skills require explicit instruction and practice.

2.1.4. Without notes, TLWBAT explain that the digital landscape continuously changes, how assuming "digital nativeness" can lead to neglecting essential digital literacy instruction in schools, how ignoring inequality perpetuates educational inequities, and how stereotyping and discrimination by labeling generations as "digital natives" or "digital immigrants" can create unnecessary division and hinder collaboration across age or generational groups.

2.1.5. Given this new breakdown of the myth, TLWBAT identify and implement strategies that can combat the possible detrimental side-effects of perpetuating the myth, such as differentiating instruction, explicitly teaching critical thinking, problem-solving, responsible online behavior, and information evaluation, and fostering intergenerational collaboration.

3. **Goal: Recognize the 10-20-30-50-70-90 myth, and be able to identify and explain the reasons why it is a myth, the consequences of the myth, and how to develop possible solutions or ideologies that better serve learning communities.**

   3.1. Objectives:

      3.1.1. Without notes, TLWBAT identify and define the 10-20-30-50-70-90 myth.

         3.1.1.1. Without notes, TLWBAT to explain the myth's idea that supposedly learners remember 10% of what they read, 20% of what they hear, 30% of what they see, 50% of what they hear and see, 70% of what they say and write, and 90% of what they say and do.

         3.1.1.2. Without notes, TLWBAT identify and explain how the myth stems from an outdated and fraudulently cited interpretation of "The Cone of Experience" developed by Edgar Dale in 1946, and how lack of evidence and robust research perpetuates the myth.

      3.1.2. Without notes, TLWBAT explain how oversimplification of learning ignores the multifaceted nature of memory and learning, and how the percentages of the myth might lead to neglecting valuable learning methods based on assumed ineffectiveness.

      3.1.3. Given this new breakdown of the myth, TLWBAT identify and implement strategies that can combat the possible detrimental side-effects of perpetuating the myth, such as encouraging active engagement with information, multiple senses, and modalities, diversifying instructional methods like lectures, discussions, visuals, activities, and practice to reinforce understanding, and regularly revisiting and using learned information to strengthen memory and understanding.