LESSON SUBJECT (21st Century Skill, Lesson Number: Topic)

Analysis/Solution Mindset Lesson 2: Design Thinking

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ACADEMIC LEARNING GOALS (OUTCOMES/OBJECTIVES) FOR THIS LESSON:
(What learners should know or be able to do as a result of the lesson.)

The four primary attributes of Analysis/Solution Mindset covered in Lesson 1 & Lesson 2 are listed. This lesson will primarily provide an overview of attributes 3 & 4:

1. Considers different viewpoints and puts effort into understanding why information may be presented in a certain way.
2. Looks at the bigger picture of the work situation, community, or society when solving problems.
3. **Examines information and data using critical thinking skills.**
4. **Takes time to think about different ways of solving a problem and tests out ideas to see which one is best.**

CRITICAL THINKING SKILLS UTILIZED IN THIS LESSON:
(What elements of the lesson allow learners to utilize critical thinking techniques.)

• Using facilitation strategies in addition to instruction will encourage learner participation and opportunities to exercise critical thinking.

• In this lesson, the facilitation strategies are role-play and attentive listening/providing input to practice Design Thinking in small groups.

• Think of the 80-20 rule. 80% of this lesson is ready for use, 20% can be enhanced by interactive activities and examples you come up with as an instructor. After using this lesson, you can provide your feedback and enhancements through the [www.newworldofwork.org](http://www.newworldofwork.org) website.
MEDIA, HANDOUTS, OR EXTRA MATERIALS: (What media is used in addition to lesson plan.)

The skills lessons have been designed to go along with the New World of Work/CreatorUp video content. All the Lesson 1’s can incorporate the “What Not to Do” videos and all Lesson 2’s can utilize the 21st Century Skills Video Assessments. These videos can also assist in hybrid/online courses. Gauge student interest in the videos and play throughout the course as needed.

This lesson uses:

- Human-Centered Design Video: vimeo.com/106505300
- Design Kit website: www.designkit.org
- Design Thinking Activity Handout

New World of Work Analysis/Solution Mindset Assessment Videos

In the 2017-2018 academic year, a new set of assessment videos will be added. You can use one or both of these videos based on the workplace scenes depicted. They can be accessed through the playlist:

www.youtube.com/playlist?list=PLWCjcrQpQiFZn9kWvXlK7nd-oQscOEs6A

INSTRUCTION: (List of reproducible steps for the lesson.)

Instructor Notes (General):

To allow for greater flexibility of delivery, lessons can be shortened to fit into a 45min class period. They can be expanded, with more time for facilitated activities and examples, up to a 90min session.

PPT presentation slides have been kept basic to avoid copyright infringement on images hosted open source. Feel free to add your own images when presenting the slides to your learners.

Instructor Notes (Lesson-Specific):

This lesson goes well with the concepts in the Empathy lessons. Analysis/Solution Mindset could be done in sequence after the Empathy lessons to allow students to practice skills like attentive listening.
1. **Attributes slide**: Review the attributes for Analysis/Solution Mindset. Let students know through the process of “Design Thinking,” they will be focusing on the attributes in bold for this lesson.

2. **Play Human-Centered Design video**: vimeo.com/106505300

3. **New Workplace, New Approach slide**: Modern workers will be expected to be self-managed. The difference between 20th and 21st Century workplaces is that workers will face even more complex problems and will have less guidance from “management” to solve them. Workers need to develop an arsenal of problem-solving tools and mindsets to excel in the 21st Century workforce. One strategy to develop is Design Thinking, which is useful in looking at problems and co-creating solutions.

4. **What is Design Thinking slide**: Traditionally designers, such as architects and software developers, have employed design thinking to develop new products and build buildings. It’s a process of deep reflection, understanding how the end-user will actually use the product, and designing a product based on the consumer. Design thinking is now also being used to solve different types of problems, such as social justice issues. The process is an effective tool for approaching problems with a solution-mindset.

5. **Steps of Design Thinking slide**:
   a. **Inspiration**: Identify the problem. Interview people impacted by the problem. Employ empathy and active listening to fully understand how the end-user/customer is impacted. What are other factors that may play a role?

   b. **Ideation**: After gathering information and interviewing, brainstorm ideas on how to solve the problem. Think of all factors, including end-users, constraints such as budget, and be creative. Develop prototypes to test out.

   c. **Implementation**: Implement the idea and document how it is being used. Accept and apply feedback. Iterate, build, and modify the original concept to make it even stronger.

       This can be applied to all kinds of challenges. It is not reserved for designing “things.”

6. **Practice Challenge Role-Play slide**: Divide into groups of two to four and have students practice design thinking through role-play. They can write out, describe, or act out solutions based on their learning styles and Introversion/Extroversion preferences.

7. **Design Thinking Challenge slide**: Divide up in groups of three to four to use design thinking to address this challenge.

8. **Design a Solution slide**:
   a. **Inspiration**: Interview each other about this challenge. What are factors that come into play? Do not solve the problem yet—just listen to what the barriers are and what factors contribute to the challenge. Use the worksheet to record notes and thoughts (5 minutes).
b. **Ideation:** As a group, brainstorm solutions for this challenge. Be creative and be open. Sometimes the simplest solutions are the best. As a group decide on a solution to present to the class (5 minutes).

c. **Implementation:** For the chosen solution, list the steps required to implement the solution. Present the inspiration, ideation, and proposed implementation to the class in a 90 second pitch (5 minutes).

9. **Implementation Proposals slide:** Each group presents a 90-second proposed implementation based on their inspiration and ideation phases. (10 minutes). Engage the class in providing feedback and asking questions.

10. **Debrief slide:** How was the process for you? What did you like? What made you uncomfortable? How can you apply design thinking in the workplace?

11. **Real Life Applications slide:** Ask students to observe situations in which design thinking could be applied, and encourage them to practice active listening and empathy in the workplace to start to recognize solutions.

Have students watch the New World of Work 21st Century Skills [Analysis-Solution Mindset Assessment video](http://www.youtube.com/playlist?list=PLWCjcrQpQiFZn9kWvXIKTnd-DOscOE6s6A).

*Please read the note in the Media section of this lesson plan.* You can access the playlist here:

www.youtube.com/playlist?list=PLWCjcrQpQiFZn9kWvXIKTnd-DOscOE6s6A

Which of the three options best represents a design thinking approach with a focus on problem solving?
CLASS CLOSURE: (How the information relates to students’ life experiences/academic goals and/or the intro. for the next session of instruction.)

LinkedIn and New World of Work have partnered to provide suggested next steps after each of NWoW’s 21st Century Skills lessons. Learners can go through self-paced, online video courses through LinkedIn Learning’s Lynda.com platform to build on their knowledge and application of employability skills. This can be done within the class, assigned as homework, and/or hosted online if you are incorporating a hybrid format. Learners earn certificates of completion, which can be showcased on their LinkedIn profiles along with digital badges and skills verifications.

Go to: www.linkedin.com/learning

Suggested Courses and Videos for Analysis/Solution Mindset at the Postsecondary Education Level

Solving business problems:
www.linkedin.com/learning/solving-business-problems

Problem solving techniques:
www.linkedin.com/learning/problem-solving-techniques

Critical thinking:
www.linkedin.com/learning/critical-thinking

Learn how to solve problems:
www.linkedin.com/learning/project-management-foundations/learn-how-to-solve-problems

Common pitfalls when solving problems:
www.linkedin.com/learning/critical-thinking/common-pitfalls-when-solving-problems

Introducing the five-step problem-solving process:

Defining the problem you solve:

Developing critical thinking skills in students:
www.linkedin.com/learning/core-strategies-for-teaching-in-higher-ed/developing-critical-thinking-skills-in-students

Engage students in higher-order thinking:
www.linkedin.com/learning/keynote-for-educators/engage-students-in-higher-order-thinking

Finding a problem to solve:
www.linkedin.com/learning/entrepreneurship-foundations/finding-a-problem-to-solve

*Videos are hyperlinked and can also be accessed through the NWoW-LinkedIn Crosswalk