



Growing Our Future Podcast – Episode 3 Lesson Plan

Lesson Title: “Food Security = National Security”

TEKs: (c) Knowledge and skills.

(3) The student explains the impact of food science systems. The student is expected to:

- (A) explain the significance of food science systems;
- (B) define trends in food production, world population, and supply and demand for food products;
- (C) research trends in animal and food science research; and
- (D) evaluate the relationship between biotechnology and the food science industry.

(5) The student identifies procedures and regulations for sanitation and safety in the food industry. The student is expected to:

- (A) identify food industry inspection standards, including hazard analysis and critical control points;
- (B) describe procedures for insect and rodent control;
- (C) identify appropriate chemicals used in the food industry;
- (D) assess conditions with regard to safety and health; and
- (E) identify specific regulation for organic animal products, grains, and produce.

(6) The student identifies safety and governmental regulations involved in the processing and labeling of foods. The student is expected to:

- (A) research regulations dealing with preserving red meat, poultry, and fish;
- (B) describe packaging, labeling, and storage requirements for red meat, poultry, and fish;
- (C) explain the impact of temperature in food preservation;
- (D) compare and contrast packaging requirements; and
- (E) evaluate cultural practices and exotic species in food harvesting and processing.

(7) The student demonstrates an understanding of the trends and issues important to careers in the food science industry by comparing and contrasting issues affecting the food science industry, including biotechnology, employment, safety, environmental, and animal welfare issues. The student is expected to:

- (A) select solutions for different environmental issues;
- (B) identify issues affecting food science;
- (C) research history and policies related to food science issues;
- (D) analyze and defend solutions for different environmental issues; and
- (E) apply economic principles such as supply, demand, and profit to food science systems.

Terminal Performance Objective:

At the complementation of the lesson, students will be able to identify, understand, and examine crisis related situations in regard to food safety according to information shared within the Growing Our Future podcast episode.

Enabling Objectives:

1. Identify H.A.C.C.P, Crisis, and Pandemic.
2. Recall COVID-19 consumer experiences.
3. Examine transformational and charismatic leadership theories within the context of food safety.
4. Explore the pandemic crisis and the leadership qualities found within Episode 3 of the Growing Our Future podcast.
5. Evaluate Mini Crisis Case Studies.

Vocabulary:

- **Accidental Cluster:** Challenges, Technical-error Accidents, Technical-error Product Harm
- **Center of Disease Control (CDC)** - serves as the national focus for developing and applying disease prevention and control, environmental health, and health promotion and health education activities designed to improve the health of the people of the United States.
- **Charismatic Leadership:** A leadership approach that reins itself on the leaders' charm and attraction which creates inspiration and devotion among the followers towards the leader.
- **Control:** (a) To manage the conditions of an operation to maintain compliance with established criteria. (b) The state where correct procedures are being followed and criteria are being met.
- **Control Measure:** Any action or activity that can be used to prevent, eliminate, or reduce a significant hazard.
- **Control Point:** Any step at which biological, chemical, or physical factors can be controlled.
- **Crisis** - Is a time of intense difficulty, trouble, or danger when a difficult or important decision must be made.
- **Critical Control Point:** A step at which control can be applied and is essential to prevent or eliminate a food safety hazard or reduce it to an acceptable level.
- **Endemic** – A disease or condition present among a population at all times.
- **Epidemic** – “outbreak”- a disease occurrence among a population that is more than what is expected in a given time and place; usually a sudden increase.
- **HACCP:** A systematic approach to the identification, evaluation, and control of food safety hazards.
- **Hazard:** A biological, chemical, or physical agent that is reasonably likely to cause illness or injury in the absence of its control.
- **Hazard Analysis:** The process of collecting and evaluating information on hazards associated with the food under consideration to decide which are significant and must be addressed in the HACCP plan.

Bell Work:

Answer the following series of questions to the best of your ability:

- What is the difference between a pandemic, endemic, and an epidemic?
 - **Answer:** According to the Centers for Disease Control and Prevention (CDC), a pandemic refers to “an epidemic that has spread over several countries or continents, usually affecting a large number of people.”
 - <https://www.baptistjax.com/juice/stories/covid-19/epidemiology-101>

What's the difference?

Endemic, epidemic and pandemic explained.



Epidemic or Outbreak

Disease occurrence among a population that is more than what is expected in a given time and place, usually a sudden increase



Pandemic

An epidemic that spreads across regions



Endemic

A disease or condition present among a population at all times

Source: Centers for Disease Control and Prevention (CDC)

- What does H.A.C.C.P. stand for?
 - **Answer:** Hazard Analysis Critical Control Point.
- What is the Hazard Analysis Critical Control Point?
 - **Answer:** A systematic approach to the identification, evaluation, and control of food safety hazards.
- What are the seven principles of H.A.C.C.P?
 - **Answer:** HACCP is a systematic approach to the identification, evaluation, and control of food safety hazards based on the following seven principles:
 - Principle 1: Conduct a hazard analysis.
 - Principle 2: Determine the critical control points (CCPs).
 - Principle 3: Establish critical limits.

- **Monitor:** To conduct a planned sequence of observations or measurements to assess whether a CCP is under control and to produce an accurate record for future use in verification.
- **Pandemic** – an epidemic that spreads across regions.
- **Preventable Cluster:** Human-error Accidents, Human-error Product Harm, Organizational Misdeeds
- **Stakeholder** - is a person such as an employee, customer, or citizen who is involved with an organization, society, etc. and therefore has responsibilities towards it and an interest in its success.
- **Transformational Leadership:** A leadership approach that causes a change in individuals and social systems through a collective vision.
- **Victim Cluster:** Natural Disasters, Rumors, Workplace Violence, and Malevolence

- *Principle 4: Establish monitoring procedures.*
- *Principle 5: Establish corrective actions.*
- *Principle 6: Establish verification procedures.*
- *Principle 7: Establish record-keeping and documentation procedures.*

- **True or False:** Cleanliness is a major factor in preventing foodborne illness.
 - **Answer: True.** 99% of people do NOT wash their hands correctly.
 - 1/3 of individuals use personal electronic devices while cooking and do NOT wash their hands after touching the device.
 - We all have an active role in preventing foodborne illness and protecting public health.
 - <https://www.fsis.usda.gov/food-safety>
- **Matching:** Match the proper term with the appropriate description.

A. Clean	Mishandling food can lead to foodborne illness. Wash hands and surfaces often, keeping them _____.
B. Chill	When handling raw meat, poultry, and seafood, keep _____ to prevent cross-contamination.
C. Cook	_____ raw meat and poultry to a safe minimum internal temperature.
D. Separate	Cold or _____ temperatures keep harmful bacteria from growing, so refrigerate promptly.

- **Answers:**
<https://www.fsis.usda.gov/food-safety>

A. Clean	Mishandling food can lead to foodborne illness. Wash hands and surfaces often, keeping them <u> A </u> .
B. Chill	When handling raw meat, poultry, and seafood, keep <u> D </u> to prevent cross-contamination.
C. Cook	<u> C </u> raw meat and poultry to a safe minimum internal temperature.

D. Separate	Cold or ___B___ temperatures keep harmful bacteria from growing, so refrigerate promptly.
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Preparation

Instructor Notes

Ask the question: *“Do you remember what shopping was like during COVID?”*

Do any of these images look familiar?

Other than toilet paper, what other product area of the store remained in short supply?”

Allow time for class discussion.

Tell the class: *“The meat supply case remained in short supply for extended periods of time during COVID-19. Would you consider this to be a crisis for Americans?”*

What qualifies as a crisis?”

After some class discussion, explain the meaning of “crisis” and the three categories of crisis.

Ask the class, *“Which category of crisis would the COVID -19 food supply shortage be in?”*

Allow time for in-depth discussion.

Ask the class, *“When dealing with a crisis such as food shortage, what characteristics would a leader need in order to address consumers and reassure them the crisis is under control?”*

Allow time for responses. Write valid student responses on the class board.

Tell the class, *“When dealing with a crisis, there are typically two categories of leaders: Charismatic and Transformational.”*

Explain the difference between Charismatic and Transformational Leadership.

Activity Notes

Layout various photos around the classroom of the empty grocery store shelves during COVID-19. For example:



Definition: A crisis is a time of intense difficulty, trouble, or danger when a difficult or important decision must be made.

3 Categories of Crisis:

- **Victim Cluster:** Natural Disasters, Rumors, Workplace Violence, and Malevolence
- **Accidental Cluster:** Challenges, Technical-error Accidents, Technical-error Product Harm
- **Preventable Cluster:** Human-error Accidents, Human-error Product Harm, Organizational Misdeeds

Source: Coombs (2012, p. 158)

Possible responses:

- Empathetic, courageous, communication skills, decision-making skills, resilient, and ability to delegate

Provide students with “Crisis Leadership Handout.”

<p>Tell the class, <i>“Now that we understand the difference between a Charismatic Leader and a Transformational Leader, let’s see if you can identify characteristics of each leadership style.</i></p> <p><i>Match the correct leadership characteristic with the appropriate leadership term.”</i></p> <p>Allow student five minutes to complete the matching activity and then discuss their conclusions as a class. Reveal the correct answers after class discussion.</p>	<p>Break the class up into groups of three to five students per group. Pass out the “Crisis Leadership Matching Activity.”</p>
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Presentation

Instructor Notes	Activity Notes
<p>Tell the class, <i>“Today we are going to hear from a woman who demonstrate the essences of premier leadership during a crisis.</i></p> <p><i>Dr. Mindy Brashears, Associate Vice President for research at Texas Tech University and FORMER Under Secretary of Agriculture in Food Safety for the United States Department of Agriculture during COVID-19. Dr. Brashears' extensive experience as an educator and policymaker began in the high school agriculture classroom. In this podcast episode, she discusses the key role that agriculture plays in national security.”</i></p> <p>Tell the class, <i>“While you are listening to today’s podcast video, you will be recording your responses to the following questions on the handout.”</i></p>	<p>Provide students with the “Leadership in a Pandemic Crisis” handout. Have students record their responses to the questions as they listen to the podcast episode.</p> <p>Episode 3 - Growing Our Future Podcast Link: - https://youtu.be/LZUzIKYubdg</p> <p>Discuss students’ answers to the handout as a class. Answers to the handout will vary. The handout should be graded on effort and participation.</p>

Application

Instructor Notes	Activity Notes
<p>Ask the class, <i>“What would you do in a crisis situation?”</i></p> <p>Tell the class, <i>“Today you are going to get the opportunity to tell us what you would do in the event of a crisis.”</i></p> <p>Keeping students in their groups, assign each group a miniature case study listed within the “Mini Case Studies Activity.”</p>	<p>Step 1 – Have students divided into groups of three to five people.</p> <p>Step 2 – Each student group will be assigned a mini case study to analyze. Once they ready the case study, as a group, they will answer the questions paired with their case study.</p> <p>Step 3 – Students will have 10 minutes to complete the activity.</p> <p>Step 4 - Each group will have two minutes to present their case study and answers to the class.</p>

Group #1	BP and Texas City: Act 2	Students will be graded based on their participation and effort display during the activity.
Group #2	Diamond Pet Foods and Toxic Dog Food: Act 1	
Group #3	Bausch & Lomb and ReNu with Moisture Loc: Act 2	
Group #4	University Application	

Evaluation / Summary

Instructor Notes	Activity Notes
<p>Tell the class, <i>“Before you leave today, you will record your answers to the following questions on the index card.”</i></p> <p>Ask the class, <i>“As a crisis manager, how can you prepare stakeholders for adjusting and adapting to the severity of a crisis prior to the event?”</i></p> <p>Allow time for discussion.</p> <p>Ask the class, <i>“What are the advantages and disadvantages to delivering full apologies during a crisis? Do you think partial apologies have any real value? Why or why not?”</i></p>	<p>Pass out an index card to each student. The index card will serve as the student’s exit ticket for class. Students are to answer the following questions on their index card and turn it into the instructor at the end of class.</p> <p>Questions:</p> <ol style="list-style-type: none"> 1. <i>As a crisis manager, how can you prepare stakeholders for adjusting and adapting to the severity of a crisis prior to the event?</i> 2. <i>What are the advantages and disadvantages to delivering full apologies during a crisis? Do you think partial apologies have any real value? Why or why not?</i>



Growing Our Future Podcast – Episode 3 Crisis Leadership Handout

Crisis Definition: A crisis is a time of intense difficulty, trouble, or danger when a difficult or important decision must be made.

3 Categories of Crisis:

- **Victim Cluster:** Natural Disasters, Rumors, Workplace Violence, and Malevolence
- **Accidental Cluster:** Challenges, Technical-error Accidents, Technical-error Product Harm
- **Preventable Cluster:** Human-error Accidents, Human-error Product Harm, Organizational Misdeeds

Charismatic vs. Transformational Leadership

- **Charismatic Leadership:** A leadership approach that reins itself on the leaders' charm and attraction which creates inspiration and devotion among the followers towards the leader.
- **Transformational Leadership:** A leadership approach that causes a change in individuals and social systems through a collective vision.

BASIS FOR COMPARISON	CHARISMATIC LEADERSHIP	TRANSFORMATIONAL LEADERSHIP
Meaning	A leadership style that employs rewards and punishments for motivating followers is Transactional Leadership.	A leadership style in which the leader employs charisma and enthusiasm to inspire his followers is Transformational Leadership.
Concept	Leader lays emphasis on his relationship with followers.	Leader lays emphasis on the values, ideals, morals and needs of the followers.
Nature	Reactive	Proactive
Best suited for	Settled Environment	Turbulent Environment
Works for	Developing the existing organizational culture.	Changing the existing organizational culture.
Style	Bureaucratic	Charismatic
How many leaders are there in a group?	Only one	More than one
Focused on	Planning and Execution	Innovation
Motivational Tool	Attracting followers by putting their own self-interest in first place.	Stimulating followers by setting group interest as a priority.



Growing Our Future Podcast – Episode 3 Crisis Leadership Matching Activity KEY

Instructor Notes:

1. *Cut out the squares below, mix them up, and place in an envelope or a Ziplock bag. This will serve as one activity packet.*
2. *Break class up into groups of three to five students.*
3. *Give each student group one of the “Crisis Leadership Matching Activity” packet.*
4. *Have students match the correct leadership characteristic with the appropriate leadership term.”*

Charismatic Leadership:	A leadership approach that reins itself on the leaders’ charm and attraction which creates inspiration and devotion among the followers towards the leader.
Transformational Leadership:	A leadership approach that causes a change in individuals and social systems through a collective vision.
Charismatic Leadership:	People believe charismatic leaders are born and not made.
Transformational Leadership:	Are adaptive leaders and mostly are trained to become leaders.
Charismatic Leadership:	May not want to change anything in the organization.
Transformational Leadership:	Have a basic focus of transforming the organization and their followers.
Charismatic Leadership:	Tends to work more towards their personal benefit and image building.
Transformational Leadership:	Tends to work more for the betterment of the organization and their followers.
Charismatic Leadership:	Are hard to replace.
Transformational Leadership:	Will be replaced by the next in line commandment officer in the organization if they are trained well.



Growing Our Future Podcast – Episode 3 Leadership in a Pandemic Crisis

Instructions: Answer the following questions about our nation's food security and the leadership style(s) Dr. Mindy Brashears exhibited during the COVID-19 pandemic.

1. Do you recall these events personally (or other similar instances)? Please explain what you recall concerning the food supply shortage of COVID-19 pandemic.
2. How did you feel as a consumer as the news of a potential pandemic crisis began to spread? Explain.
3. Who has the most at stake when a pandemic crisis occurs? Identify all stakeholders. *(A **Stakeholder** - is a person such as an employee, customer, or citizen who is involved with an organization, society, etc. and therefore has responsibilities towards it and an interest in its success.)*

4. What background information about the COVID-19 food supply do you need to know more about to better analyze the situation?

5. Does Dr. Brashears exhibit any of the characteristics of a charismatic leader? Which ones? How so?

6. Does Dr. Brashears exhibit any of the characteristics of a transformational leader? Which ones? How so?



Growing Our Future Podcast – Episode 3 Mini Crisis Case Studies Activity

What Would You Do?

Group #1 - BP and Texas City: Act 2

You are the spokesperson for BP, and it is about an hour into the crisis. The crisis team is assembled in the designated crisis control center. Local fire crews and BP's own fire crews are dealing with the flames. Local emergency crews are on the scene attending to the injured. The crisis team has learned there are fatalities. A construction trailer near the explosion was hit hard. Many of the injured and killed were contractors working for BP; they were in the trailer. The local and national news media have sent crews to the site. The flames and smoke will make for dramatic visuals on the news. The crisis team will hold a briefing in a few minutes.

1. What information are you likely to have that you can share with the news media?

2. What questions do you anticipate being asked but cannot answer at this time?

3. How will you handle those questions?



Growing Our Future Podcast – Episode 3 Mini Case Studies Activity

What Would You Do?

Group #2 - Diamond Pet Foods and Toxic Dog Food: Act 1

In late 2005, reports began to surface of dogs suffering from aflatoxin in their food and at least 76 dying from it. Aflatoxin is a fungus on corn that can damage a dog's liver. The Food and Drug Administration found that all the stricken dogs were eating Diamond pet food. The company tests all corn shipments for aflatoxin and rejects shipments that test too high. Diamond Pet Foods has decided to recall the related dog food products.

1. What type of instructing information would consumers need?
2. What other messages would you include in your crisis response and why?
3. What would you do to help make sure pet owners hear of this recall?
4. What other groups might be willing to help get your message to owners?



Growing Our Future Podcast – Episode 3 Mini Case Studies Activity

What Would You Do?

Group #3 - Bausch & Lomb and ReNu with Moisture Loc: Act 2

It is April 10, 2006, and the FDA and CDC have posted warning about Fusarium keratitis on their websites. The messages note that ReNu with MoistureLoc was used by 26 of 30 people interviewed about having infections. The messages also note that Bausch & Lomb has stopped producing and shipping ReNu with MoistureLoc and that investigations so far have shown no proof that the product causes the infection. At this point, there has been no recall of the product. However, large retailers, such as Wal-Mart, Walgreens, CVS, and Rite Aid, are pulling the product from their shelves. Bausch & Lomb tells people about stopping shipments, gives people the warning signs of a Fusarium keratitis infection, and reminds people to properly clean their contact lens. Messages from the American Optometric Association reinforce the Bausch & Lomb message by saying improper cleaning can lead to Fusarium keratitis.

1. Do you agree with the response from Bausch & Lomb? Why or why not?
2. Do you agree with the response from the retailers? Why or why not?
3. What do you like or dislike about the response from Bausch & Lomb? From the retailers?
4. A slight complication appears. The government and news media report that similar outbreaks of Fusarium keratitis hit Singapore and Hong Kong in November of 2022. Bausch & Lomb voluntarily suspended sales of ReNu with MoistureLoc in those countries. Does that change your response at all if you are Bausch & Lomb?



Growing Our Future Podcast – Episode 3 Mini Case Studies Activity

What Would You Do?

Group #4 - University Application

Stakeholder fires are one of the primary risks faced by universities. When you have buildings, they can catch fire. Seton Hall was hit by a deadly dorm fire in the late 1990s, and another campus had a classroom building fire during class time.

1. In a crisis, such as a building fire, who are the likely key stakeholders for your university?
2. Does it matter if the fire is in a dorm or a classroom building? Why or why not?
3. What options does the university have for contacting these stakeholders?
4. What challenges would the university face in trying to communicate with these stakeholders?