Engaging Students in Critical Thinking: Preparing Students for the 21st Century Workplace

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Session Overview

Introduction
- Brief intro to CT
- Challenges
- 52ă ɔ 52yΩűă
- Examples of CT Assignments

Preparing students for workplace

Bringing CT into the classroom

Where Do We Start?

What are you doing to facilitate critical thinking?

- Successes and failures
  - Areas of concern
- How do you describe it to your students? Do you?
- Implementation

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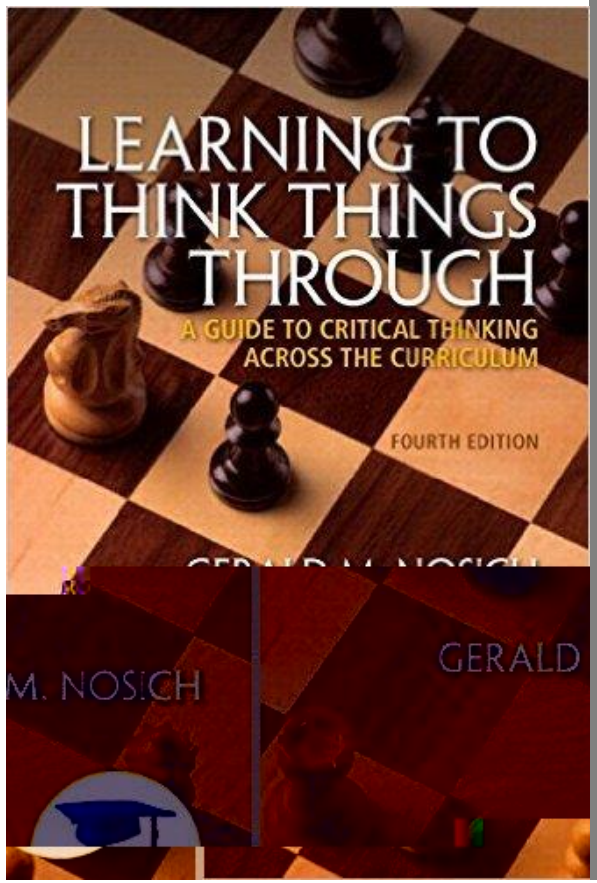
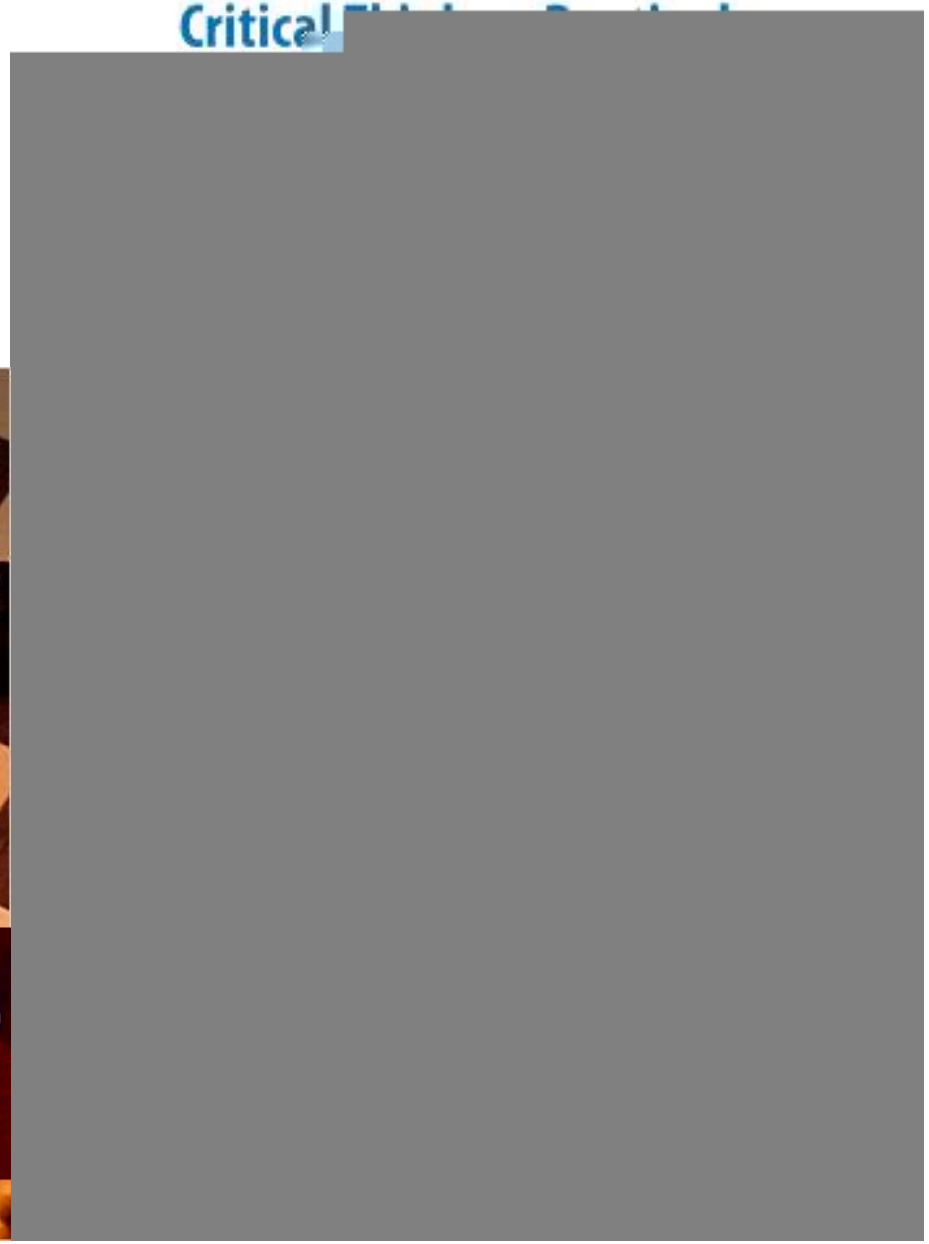
FOUNDATION FOR
CRITICAL THINKING


LEARNING TO
THINK THINGS
THROUGH
A GUIDE TO CRITICAL THINKING
ACROSS THE CURRICULUM
FOURTH EDITION
M. NOSICH
GERALD


Critical

What is critical thinking?

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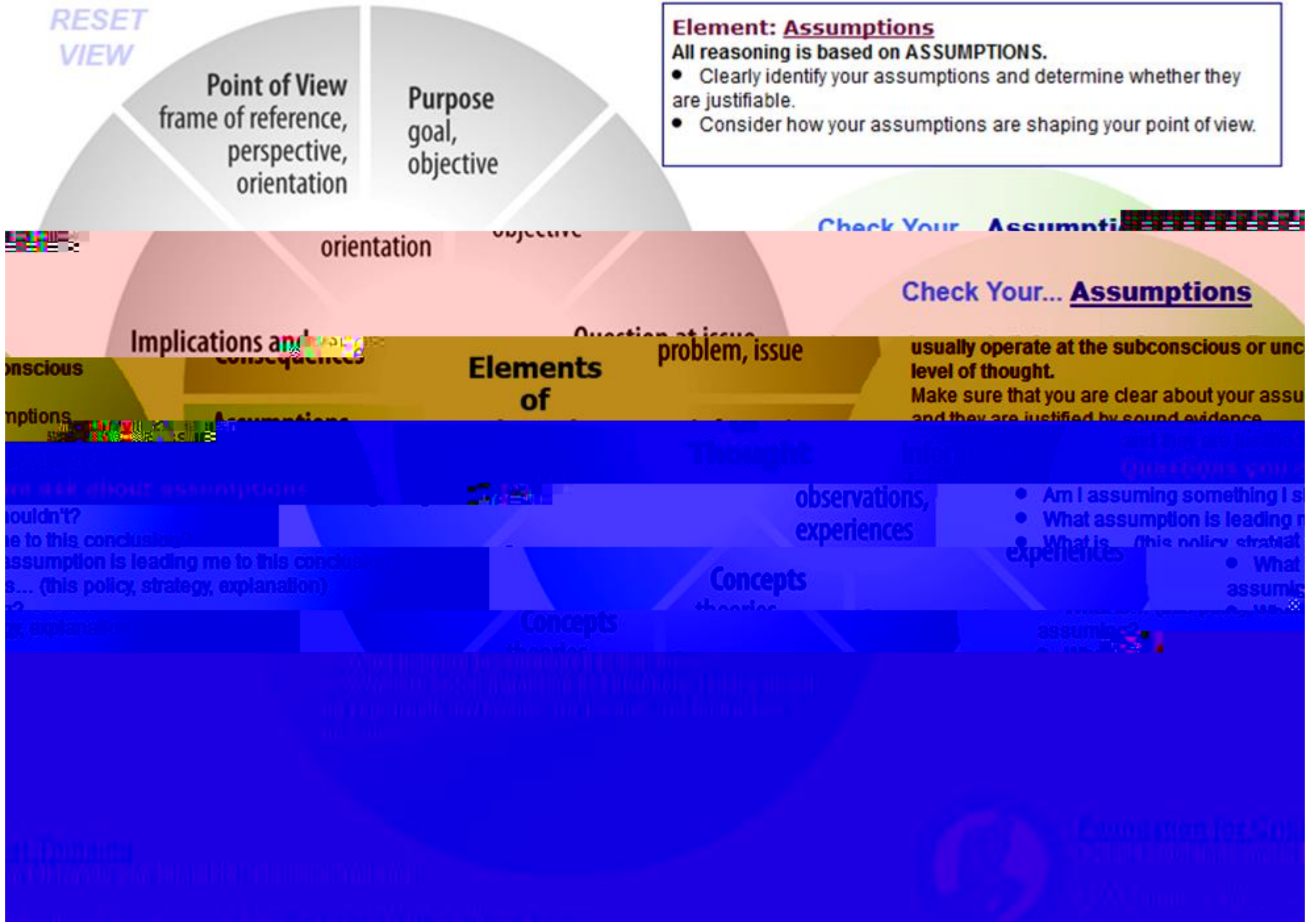
- National Council for Excellence in Critical Thinking, 1987


RESET VIEW
Point of View
frame of reference, perspective, orientation
Purpose
goal, objective
Element: Assumptions
All reasoning is based on ASSUMPTIONS.
• Clearly identify your assumptions and determine whether they are justifiable.
• Consider how your assumptions are shaping your point of view.
Check Your... Assumptions
Elements of
observations, experiences
Concepts

Stephen, a manager in his forties working for a medium sized corporation in New York, is fed up with his work. Although he is not hurting financially in his present job, he feels that his employers do not recognize Ƙƚă űŀ·fŜɣűăφ a2ăű ℕŜŎŜɣűfȅΣ ƘŜ ǿŀ·ă ƛɣãdzfűŜŘ ǿƘŜɣ'ɣ2dzűăƛŘŜ ΨŜȄLJŜℕJűΩ - someone Stephen knows personally and for whom he has little regard - was called in to advise on a task where Stephen was proud of his expertise. He has decided to make a change and has applied for a number of jobs, without the knowledge of his current employers.

He has been offered a job in California which is a lateral move, both financially and in terms of his job responsibilities. At the interview he was flattered to find himself highly regarded by the person charged with appointing someone to the new position. Because of the interview experience he has decided to accept the job. He feels that it will be an improvement to work in an environment where his talents will be clearly recognized and rewarded.

Assumptions Inventory

1. What assumptions do you think Stephen is operating under in regard to his position in the organization? List as many as you can.

1. hŦ űĸKŜ Ⅰ·ăăʤϒLJűƛƨyã èƨʤΩØŜ fƛăűŜŘΣ øKƛŎK ƨyŜă ŎƨʤfŘ {űŜLJKŜϒ check by simple research and inquiry? How could he do this?

1. Give an alternate interpretation of this scenario. A version of øĸⅠ·űΩă ĸⅠ·LJLJŜyƒyƎ űĸⅠ·ű ƛă Ŏƨyãƛăű Ŝyű øƛűK űĸKŜ ŜØŜyűă ŘŜăŎℕƛōŜŘ but that you think Stephen would disagree with.

Caitlin and the Pacemaker

It was recently discovered that your 8-year old daughter, Caitlin, has a heart arrhythmia. She will need to have a pacemaker implanted, leaving you with two options:

- Pacemaker A: Has been on the market for over 10 years with a 92% success rate for fixing the palpitation with no further complications related to the surgery. It must be replaced when she turns 18.
- Pacemaker B: Is currently in clinical trial; new technology incorporated so that the pacemaker will be able to adapt with her developmental changes and could last a lifetime.

As parents, you need to make a decision: Pacemaker A or B?

Challenges to Critical Thinking

Dominant Structuring

- Tend not to change mind once we have made a decision
- Selective listeners

Egocentric thinking

- LűΩă y⁄2ű yⅦ·űdzNJI·f ű2 űKλy⁀ I·ō2dzű űKŜ NJλ∃Kűă£ y⁄ŜŜŘă£ 2NJ LJ2λy⁄űă 2ŧ ØλŜø 2ŧ 2űKŜNJă
- Unrealistic confidence that we have figured out the way things really are

Sociocentric thinking

- ¦ y⁄ŎNJλűλŎI·ffè λy⁄űŜNJyⅦ·fλÎλy∃ űKŜ Ř2Yˇλ yⅦ·y⁄ű LJNJŜ∂dzŘλŎŜă 2ŧ 2y⁄ŜΩă Ŏdzfűdz NJŜ 2NJ ă2ŎλŜűè
- e.g., culture bound

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DO

Be explicit

Share documents/rubrics

Implement silence

Present the unexpected

Video reinforce

Use close-to-home examples

Focus on metacognition

5hbΩ¢

C₴Ŏdžǎ ₴y˝ŸŎ₴ØŜℕI·ƎŜΩ

Post complete powerpoint slides

Talk about logical fallacies by name - let them seem natural to the conversation

5h{ !b5 5hb{ hC /wL¢L/![¢IlbYlbD

DO

Use neutral questions
Prompt with critical thinking verbs
Show your work, show how you think
End class periods with questions

5hb¢

Ask what. But ask why
Let students fall into stereotypes in role-play
Be afraid to give group tests

Assignment Example: SEE-I Sustainable Tourism

SEE- I (State, Elaborate, Exemplify ς Illustrate)

- State: Provide a statement that succinctly summarizes
- Elaborate: Paraphrase the previous statement using a phrase such as "In other words ΥŜΙ·y̆ãXέ
- Exemplify: Use an example to show what is in a practical sense (e.g., the US is an example of a representative democracy), or identify a specific instance that represents a broad group (e.g., an apple is a type of fruit); or use a counter example to indicate what the topic is not (e.g., copper is a conductor of electricity, while cardboard is not)
- Illustrate: Provide a sketch, visual, or metaphor that embodies what you believe to be

Assignment Example: Case Studies

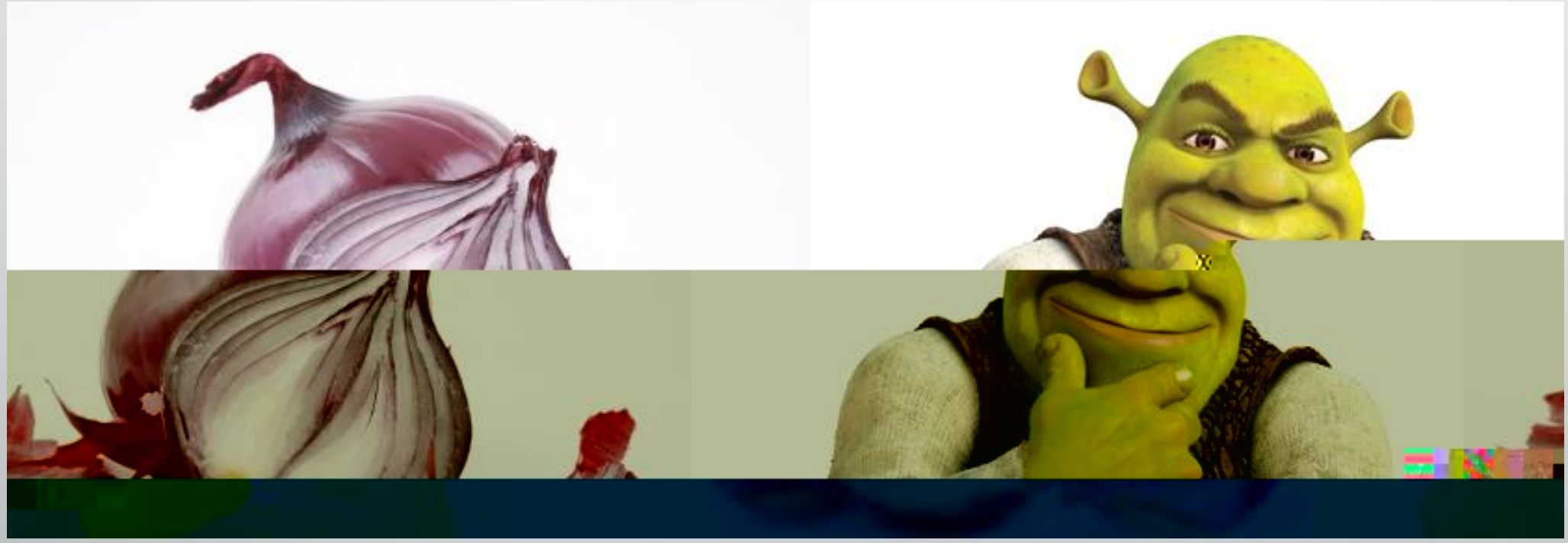
How to Prepare a Case Study

1. Defining the issue(s)
2. Analyzing the case data
3. Generating alternatives
4. Analyzing and evaluating alternatives
5. Recommendation/ Selecting the preferred alternative

Common Reactions to Case Studies

1. ¢Kλă λă dzyℕŜl·fλăűλŎ ƨℕ ăλYLJfȅ Ŏƨdzfŕyℚűκǿƨdzfŕyℚű Kl·ØŜ Kl·LJLJŜyŜŘ¢
2. Quickly seeking someone to blame
3. LYYŜŘλl·űŜfȅ ăűl·ℕJű ōȅ λyűŜℕJƨŜŎűλƨyƨLJλyλƨyã¢ á{KŜ ăKƨdzfŕyℚű Kl·ØŜ Řƨyŝ űKl·űX T á¢Kλă ǿƨdzfŕyℚű Kl·ØŜ Kl·LJLJŜyŜŘ λŦX
4. wŜl·Ř λyűƨ Ŏl·ăŝ λyŦƨℕYl·űλƨy¢ a l·ʅŜ λyűŜℕLJℕJŜűl·űλƨyã l·yŕ úℕJŜl·ű λyűŜℕLJℕJŜűl·űλƨyã l·ă Ŧl·Ŏű¢ á9Yλfȅ λă ăyƨōōȅ ōŜŎl·dzăŝ ăKŜ l·űűŜyŕă {Yλűk /ƨffŜƎŜ¢é
5. Jump to action to fix the situation before understanding all the facts of the case
6. Attempt to explain with common sense solutions that over simplify the case

Cases are like onions



Example Assignment: Scenario Role-Playing

Examples that work through competing needs/interests:

- Making management decisions across conservation, preservation, and recreation perspectives (e.g., quagmire in natural resource management)
- Various stakeholder groups in tourism (e.g., development decisions)
- Recreation needs assessment for a community (e.g., who has what needs and how do you prioritize)

Conclusion

- Our responsibility to prepare students for workplace/life
- Implementation
- Commitment
- Challenging our own thinking
- Final Activity