Critical Thinking Sections Instructor Session

First of Three

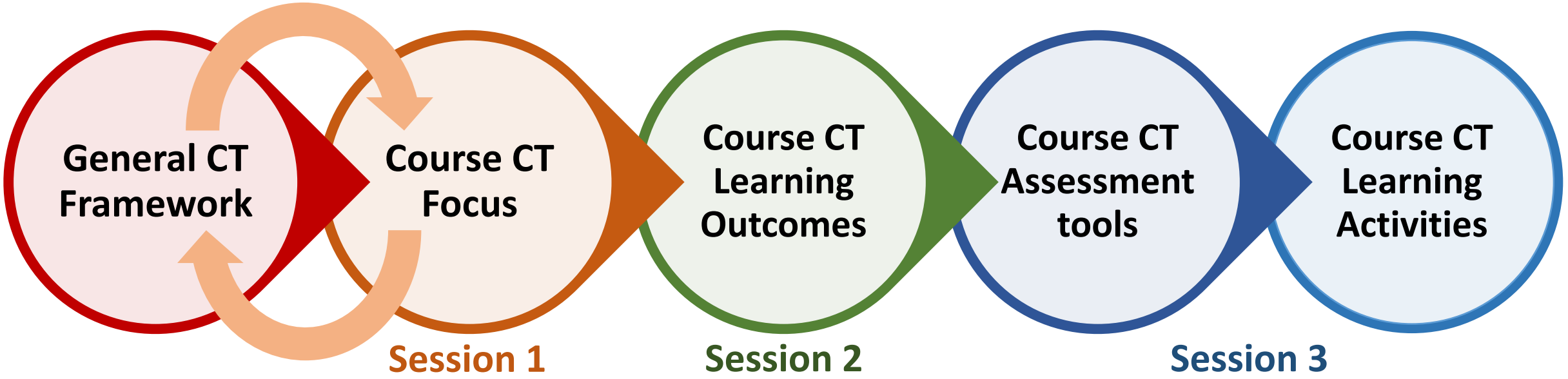
March 16, 2018

You may find a video of this workshop at:
Part 1 https://youtu.be/q0y02qf85Uk
Part 2 https://youtu.be/QREJJRelErM

SESSIONS

Session 1	**Identifying the Critical Thinking Focus for Your Course** March 16, 2018, Noon – 1:00 and 2:00-3:00; ALB 650	• Background and Looking Ahead • Outcomes and Assessment • Mapping Reasoning (Recommended Tool) • Identifying Your Course Focus
Session 2	**Identifying the Critical Thinking Outcomes for Your Course** April 20, 2018, Noon – 1:00 and 2:00-3:00; ALB 650	• Bring your Syllabus • Reviewing Your Course Focus • Drafting Learning Outcomes • Considering Alignment
Session 3	**Assessing and Teaching for Critical Thinking in Your Course** May 11, 2018, Noon – 1:00 and 2:00-3:00; ALB 650	• Planning Assessment Methods • Planning Learning Activities • Considering Alignment • Cultivating Critical Thinking Dispositions
Session 4	**Review (Optional)** May 25, 2018, Noon – 1:00 and 2:00-3:00; ALB 650	• Questions and Answers
Session 5	**Pre-Class Contract Week Check in**	• Getting Ready

SESSIONS


General CT Framework
Course CT Focus
Course CT Learning Outcomes
Course CT Assessment tools
Course CT Learning Activities
Session 1
Session 2
Session 3

BACKGROUND & LOOKING AHEAD

General Education Program

"The General Education Program seeks to develop … qualities of global citizenship in four distinct ways. After completing the general education curriculum, students will:

- **Demonstrate critical thinking, quantitative, and communication skills necessary to succeed in a rapidly changing global society.**
- Demonstrate broad knowledge of the physical, social, and cultural worlds as well as the methods by which this knowledge is produced.
- Recognize that responsible global citizenship involves personal accountability, social equity, and environmental sustainability.
- Apply their knowledge and skills, working in interdisciplinary ways to solve problems."

https://www.uwsp.edu/gep/Pages/default.aspx

BACKGROUND & LOOKING AHEAD

UNIVERSITY OF WISCONSIN Colleges

AAS Proficiencies

[T]he UW Colleges regards the following areas of proficiency to be of primary importance in the education of our students: Analytical Skills, Quantitative Skills, Communication Skills, and Aesthetic Skills.

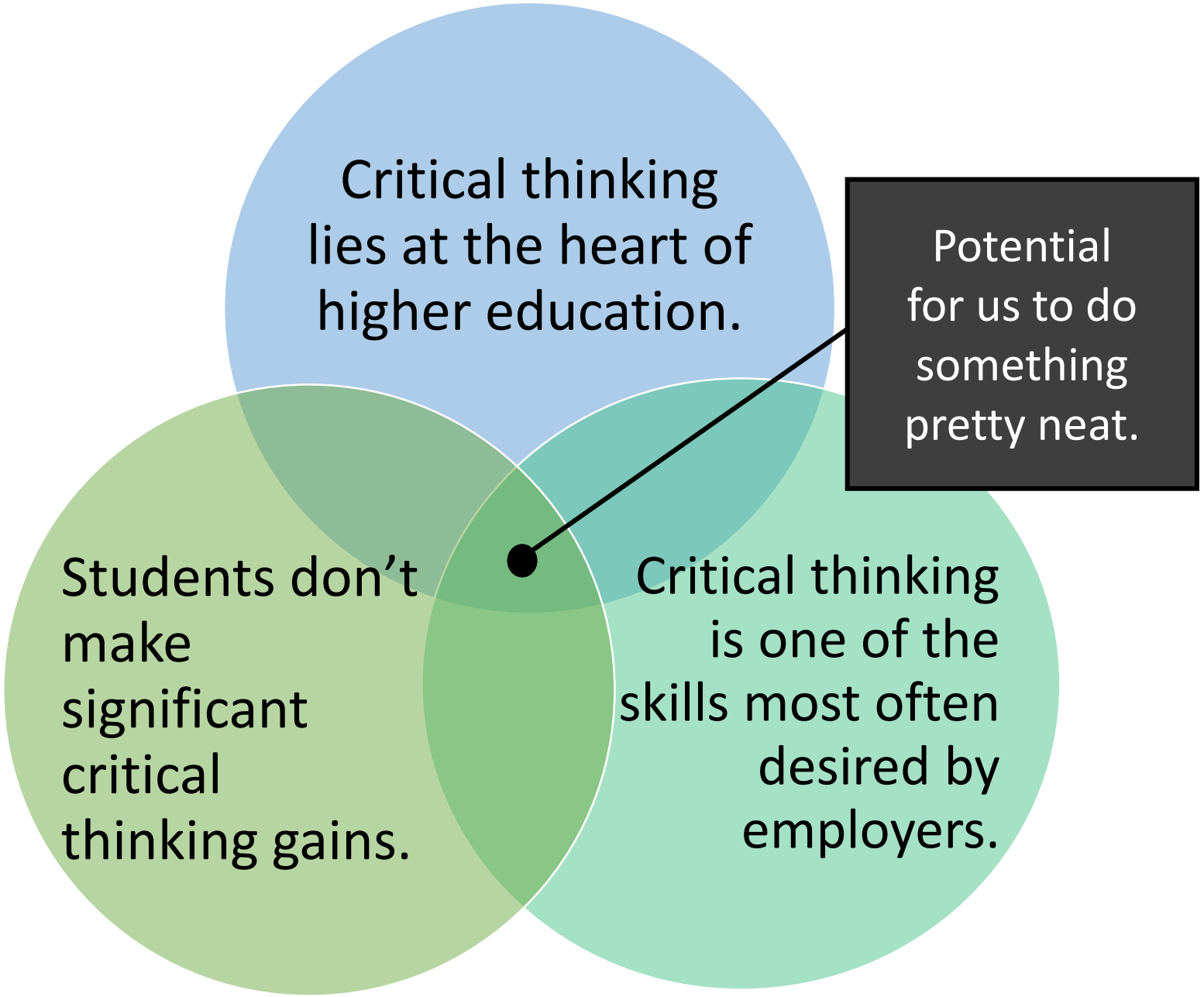
Analytical Skills

Students must be able to:

- interpret and synthesize information and ideas;
- analyze and evaluate arguments;
- construct hypotheses and support arguments;
- select and apply scientific and other appropriate methodologies;
- integrate knowledge and experience to arrive at creative solutions; and
- gather and assess information from printed sources, electronic sources, and observation.

http://www.uwc.edu/catalog/degrees/aas/proficiencies
http://www.uwc.edu/employees/assessment/proficiencies-rubrics

BACKGROUND & LOOKING AHEAD



BACKGROUND & LOOKING AHEAD

Fall 1995

- Argument mapping used in the Philosophy Department.

Summer 2015

- Faculty from English, French, History, and Communication collaborated to explore the potential of argument mapping to facilitate critical thinking instruction in those disciplines.

Academic Year 2015 – 2016

- UW-Stevens Point selected argument mapping as the focus of its Quality Initiative in support of its continued accreditation through the Higher Learning Commission.

BACKGROUND & LOOKING AHEAD

Academic Year 2016 – 2017

- Faculty Exploration Groups formed to discuss how argument mapping could be used to teach and assess critical thinking across the curriculum.

Summer 2017

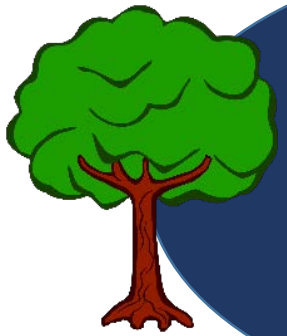
- Faculty from UW-Stevens Point conducted workshops in argument mapping for instructors at Mid-State Technical College and Gateway Technical College and extended the discussion of critical thinking to include dialogue mapping.

Fall 2017

- Held additional critical thinking luncheons. Broadened the focus from “argument” to “reasoning.” Began meetings with local employers. Drafted critical thinking pilot for Fall 2018.

BACKGROUND & LOOKING AHEAD

Social Sciences
Natural Sciences
Formal Sciences
Arts
Humanities
Professional Programs
Expertise of Instructors Across Disciplines



General Critical Thinking Framework

for Transfer of Learning and Application

Flexibility at Course Level

for Disciplinary and Instructional Differences

Critical Thinking Curriculum

Courses Situated within General Framework while Retaining Disciplinary Focus

Part of GEP / AD?

Certificate?

Student Recruitment?

Training and Outreach?

Fundraising?

Agriculture
Service
Manufacturing
Education
Construction
Health Care
Input from Employers Across Sectors

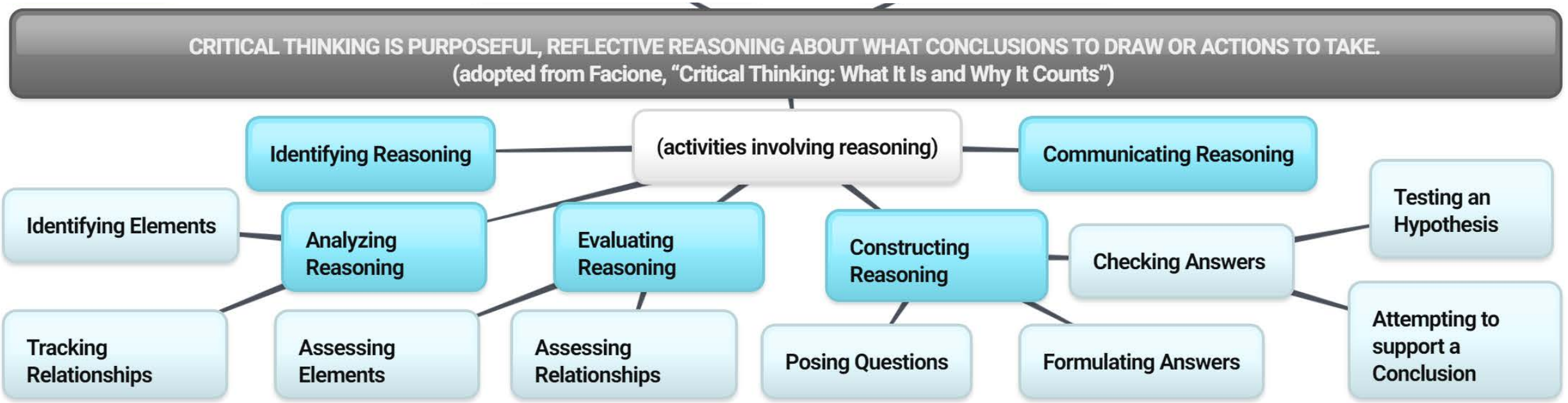
BACKGROUND & LOOKING AHEAD

All types of reasoning (e.g. scientific reasoning, normative reasoning, decision making, problem solving) in all types of contexts (e.g. the classroom, the workplace) are composed of particular activities.

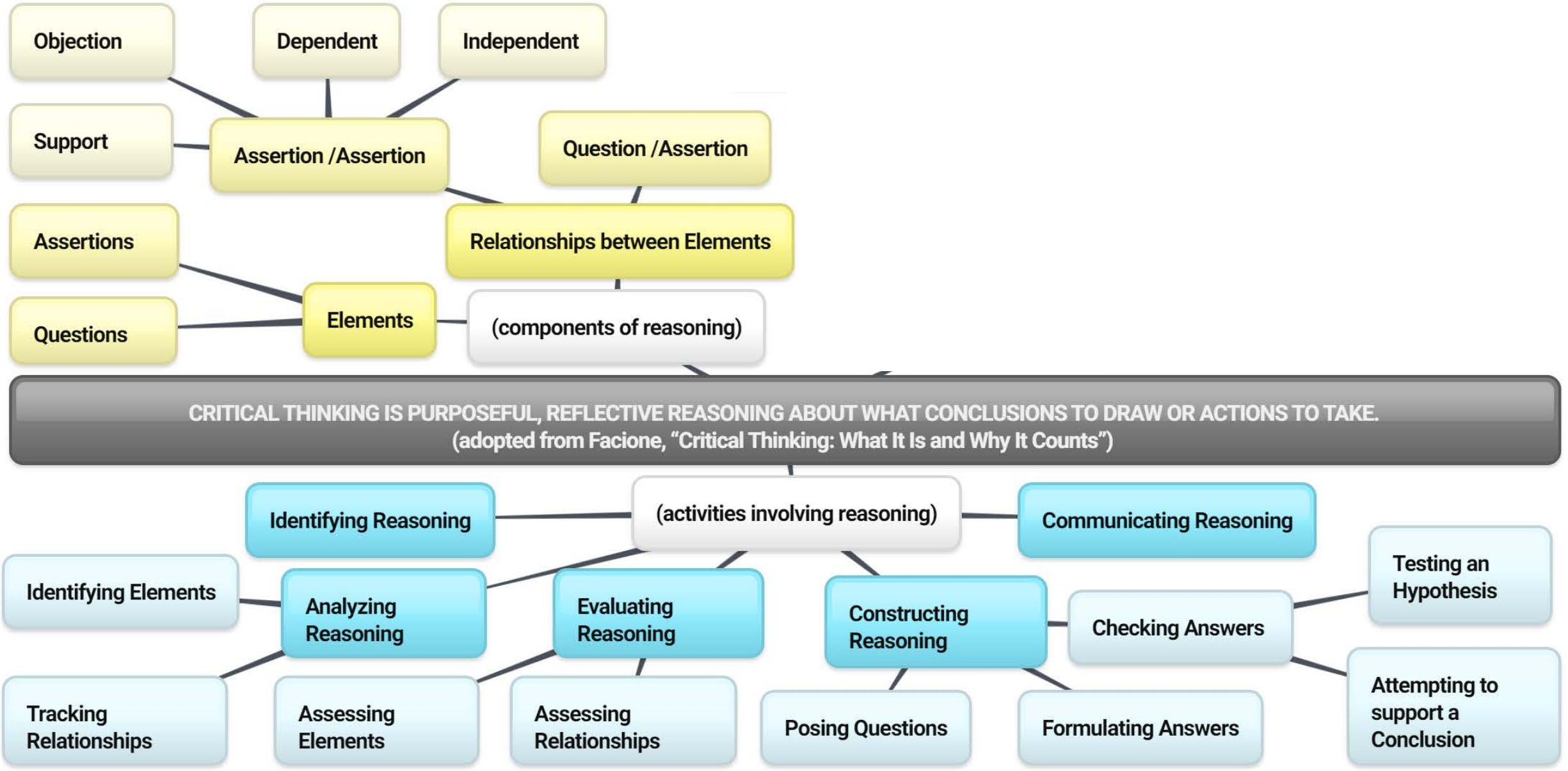
It would be nice to

- identify the **basic activities** out of which all reasoning is composed,
- articulate **the smallest complete set** of such activities,
- situate these activities within a **broader framework**, and
- determine how such activities can be **mastered across the curriculum**.

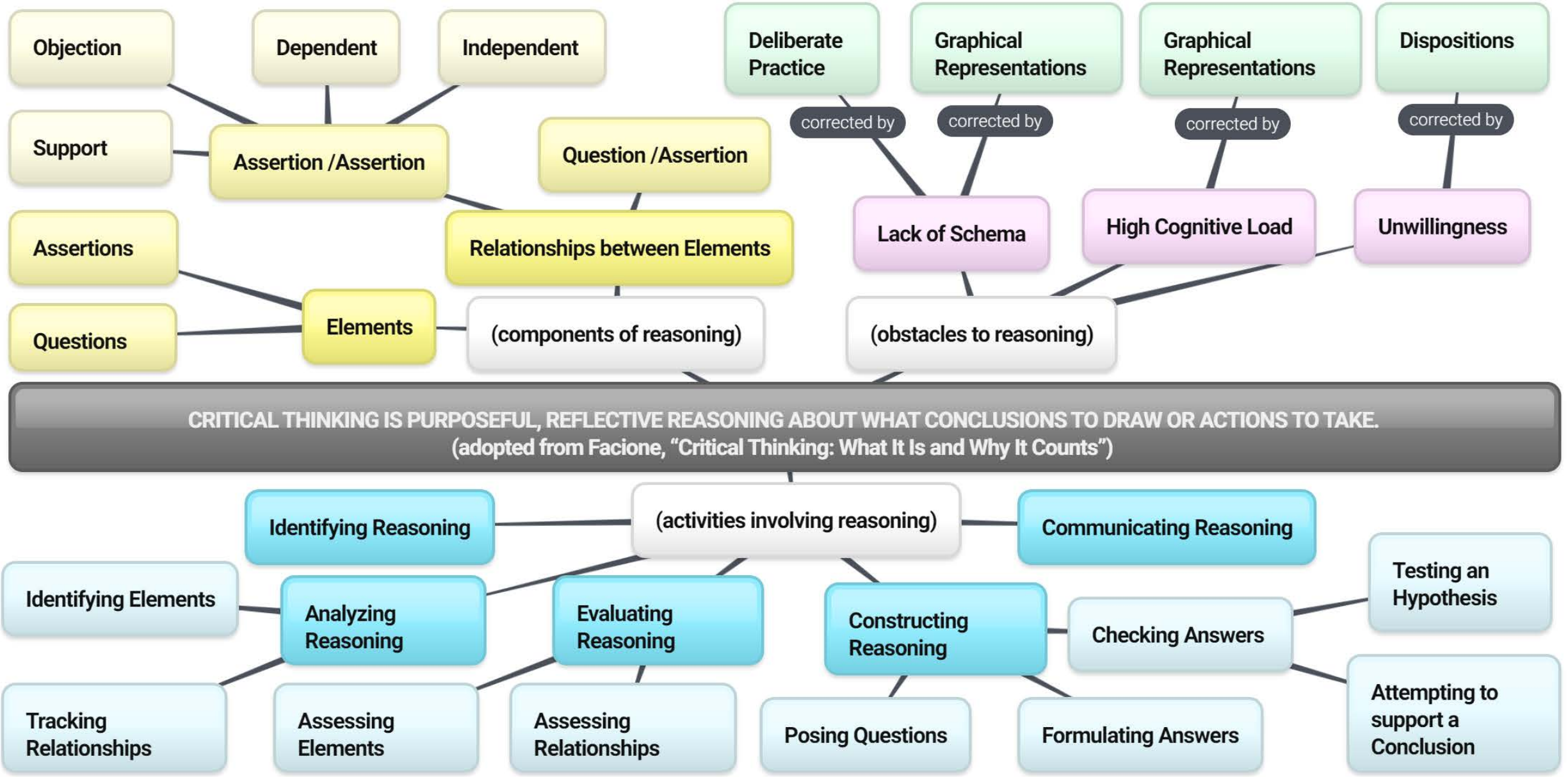
BACKGROUND & LOOKING AHEAD



BACKGROUND & LOOKING AHEAD



BACKGROUND & LOOKING AHEAD



OUTCOMES AND ASSESSMENT

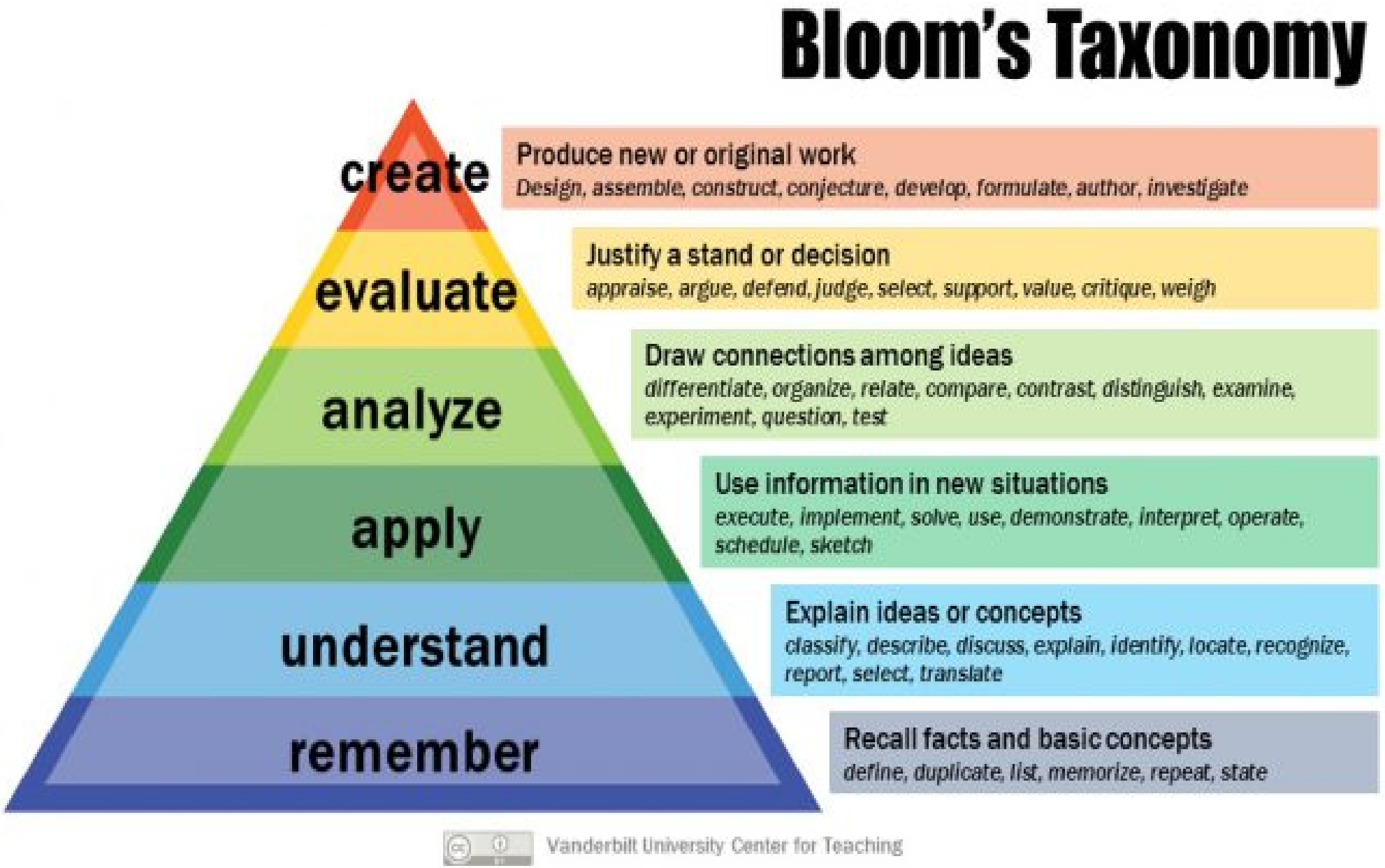
Critical Thinking Learning Outcomes

Critical Thinking is purposeful, reflective reasoning about what conclusions to draw or actions to take.

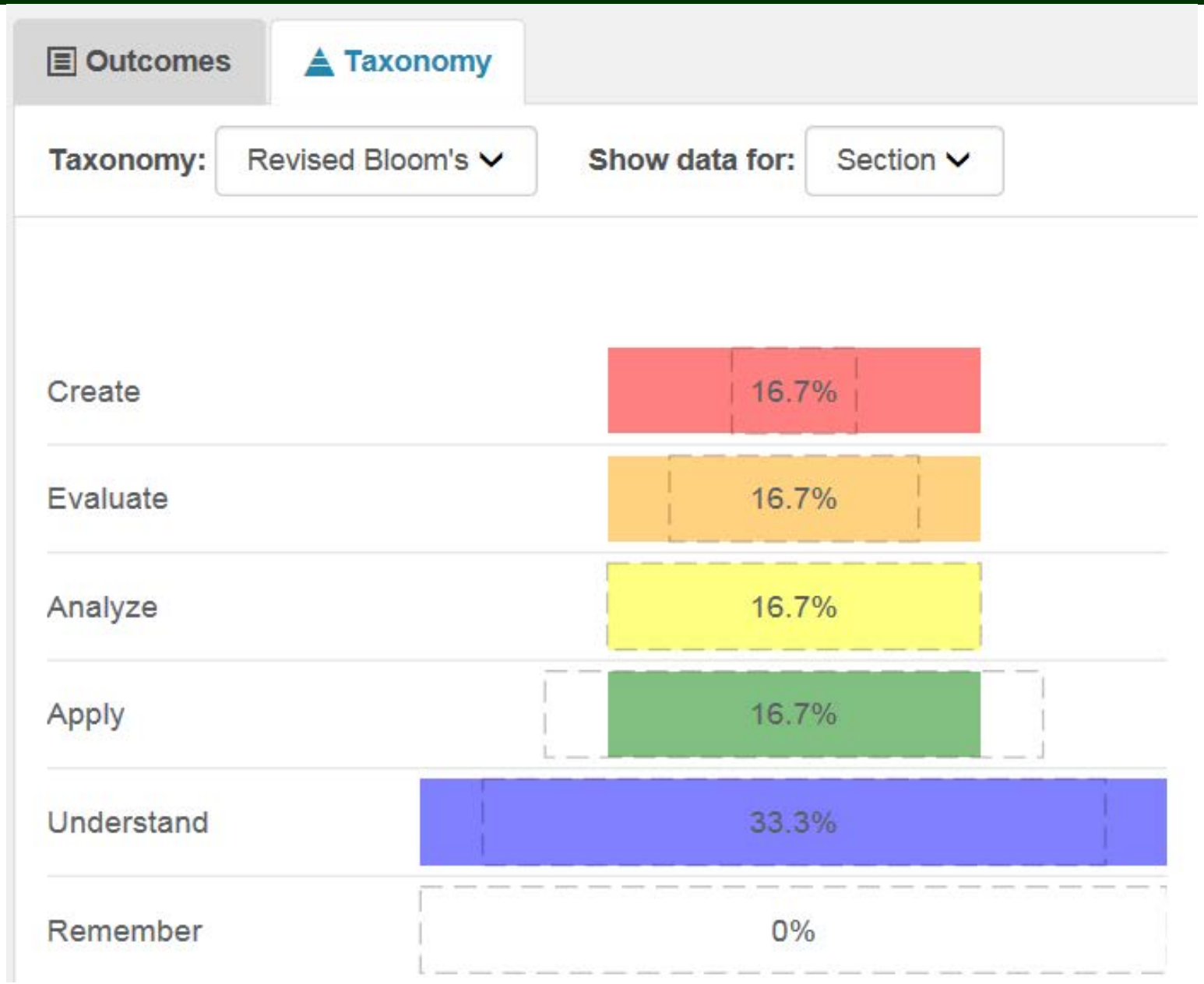
With diligent effort on their part, students will

1. Recognize critical thinking as a process of identifying, analyzing, evaluating, and constructing reasoning in deciding what conclusions to draw or actions to take.
2. Identify, analyze, evaluate, or construct reasoning as they apply it to general or discipline-specific questions or issues.

OUTCOMES AND ASSESSMENT



OUTCOMES AND ASSESSMENT



OUTCOMES AND ASSESSMENT

UWSP Critical Thinking - Recognizing Reasoning

Rubric Tools

Total Value 100pts

	Not Visible 59%	Not Meeting Expectations 70%	Partially Meeting Expectations 80%	Meeting Expectations 90%	Exceeding Expectations 100%
Recognizing Reasoning Critical thinking as a process of identifying reasoning and recognizing inference indicator expressions , such as because or therefore, etc. 100/100pts	• Does not identify inference indicator expressions (i.e. because, therefore, etc.). • Makes no distinction between passages that contain reasoning and those that don't. 59pts	• Correctly identifies inference indicator expressions. • Mistakes descriptive passages or controversial statements as pieces of reasoning. 70pts	• Correctly distinguishes between pieces of reasoning and descriptive passages or controversial statements when inference indicator expressions are present. • Does not distinguish between arguments and explanations. 80pts	• Correctly identifies and distinguishes between arguments, explanations, and descriptive passages when indicator expressions are present. • Sometimes fails to do this when inference indicators aren't present. 90pts	• Correctly identifies and distinguishes between arguments, explanations, and descriptive passages regardless of the presence or absence of indicator expressions. 100pts

OUTCOMES AND ASSESSMENT

UWSP Critical Thinking - Analyzing Reasoning

Rubric Tools

Total Value 100pts

	Not Visible 59%	Not Meeting Expectations 70%	Partially Meeting Expectations 80%	Meeting Expectations 90%	Exceeding Expectations 100%
Analyzing Reasoning Critical thinking as a process of determining the main conclusion, types of claims (i.e. supporting claims, objections, dependent or independent, etc.), and the relationships (inferences) between claims. 100/100pts	• Fails to consistently or systematically distinguish between claims in the reasoning. 59pts	• Sometimes correctly recognizes the main conclusion in the reasoning. • Sometimes mistakes an objection, an assumption, or an unimportant claim for the main conclusion. 70pts	• Consistently recognizes the main conclusion. • Sometimes incorrectly recognizes other components of the reasoning (e.g. fails to correctly identify a claim as a component of the reasoning or misidentifies an irrelevant claim as a component of the reasoning). 80pts	• Consistently recognizes the main conclusion and other components of the reasoning. • Sometimes mistakes the relationships between these components (e.g. incorrectly identifies which ideas are supporting which). 90pts	• Consistently recognizes the main conclusion. • Determines what components are part of the reasoning. • Identifies the relationships between these components. 100pts

Mapping Helps

OUTCOMES AND ASSESSMENT

UWSP Critical Thinking - Evaluating Reasoning

Rubric Tools

Total Value **100pts**

	Not Visible 59%	Not Meeting Expectations 70%	Partially Meeting Expectations 80%	Meeting Expectations 90%	Exceeding Expectations 100%
Evaluating Reasoning Critical thinking as a process of evaluating reasoning by assessing the assumptions and inferences and its clear articulation while being influenced by the reasoning. 100/100pts	• Fails to evaluate reasoning at all. **59**pts	• States a global evaluation of the reasoning. • Fails to justify that evaluation by citing an assessment of parts of the reasoning. **70**pts	• Justifies an evaluation of the reasoning by citing an assessment parts of the reasoning. • Tends to focus on claims only (e.g. often overlooks inferences, often fails to trace an evaluation of a conclusion to an assessment of assumptions or inferences) **80**pts	• Consistently evaluates reasoning by assessing its assumptions and inferences. • Clearly articulates the evaluation. • Is sometimes not appropriately influenced by the reasoning. **90**pts	• Consistently evaluates reasoning by assessing the assumptions and inferences. • Clearly articulates the evaluation. • Is appropriately influenced by the reasoning. **100**pts

Mapping Helps

OUTCOMES AND ASSESSMENT

UWSP Critical Thinking - Constructing Reasoning

Rubric Tools

Total Value 100pts

	Not Visible 59%	Not Meeting Expectations 70%	Partially Meeting Expectations 80%	Meeting Expectations 90%	Exceeding Expectations 100%
Constructing Reasoning Critical thinking as a process of formulating a clear position, supporting it with strong evidence and anticipating and responding to objections. 100/100pts	• Does not focus upon a single topic. 59pts	• Focuses upon a single topic. • When given a question, does not articulate or defend an answer to that question. 70pts	• When given a question, formulates a clear answer. • Fails to support the answer with strong reasoning (e.g. does not justify a decision by appealing to probable consequences; does not select credible evidence; does not carry out appropriate testing; does not show logical connections between evidence and conclusions). • Does not anticipate or respond to objections (e.g. does not acknowledge the disadvantages of the chosen decision or the merits of alternative decisions) 80pts	• When given a question, formulates a clear answer. • Supports the answer with strong reasoning. • Does not anticipate or respond to objections 90pts	• Poses targeted questions. • Formulates a clear answer. • Supports the answer with strong reasoning. • Anticipates and responds to objections. 100pts

Mapping Helps

OUTCOMES AND ASSESSMENT

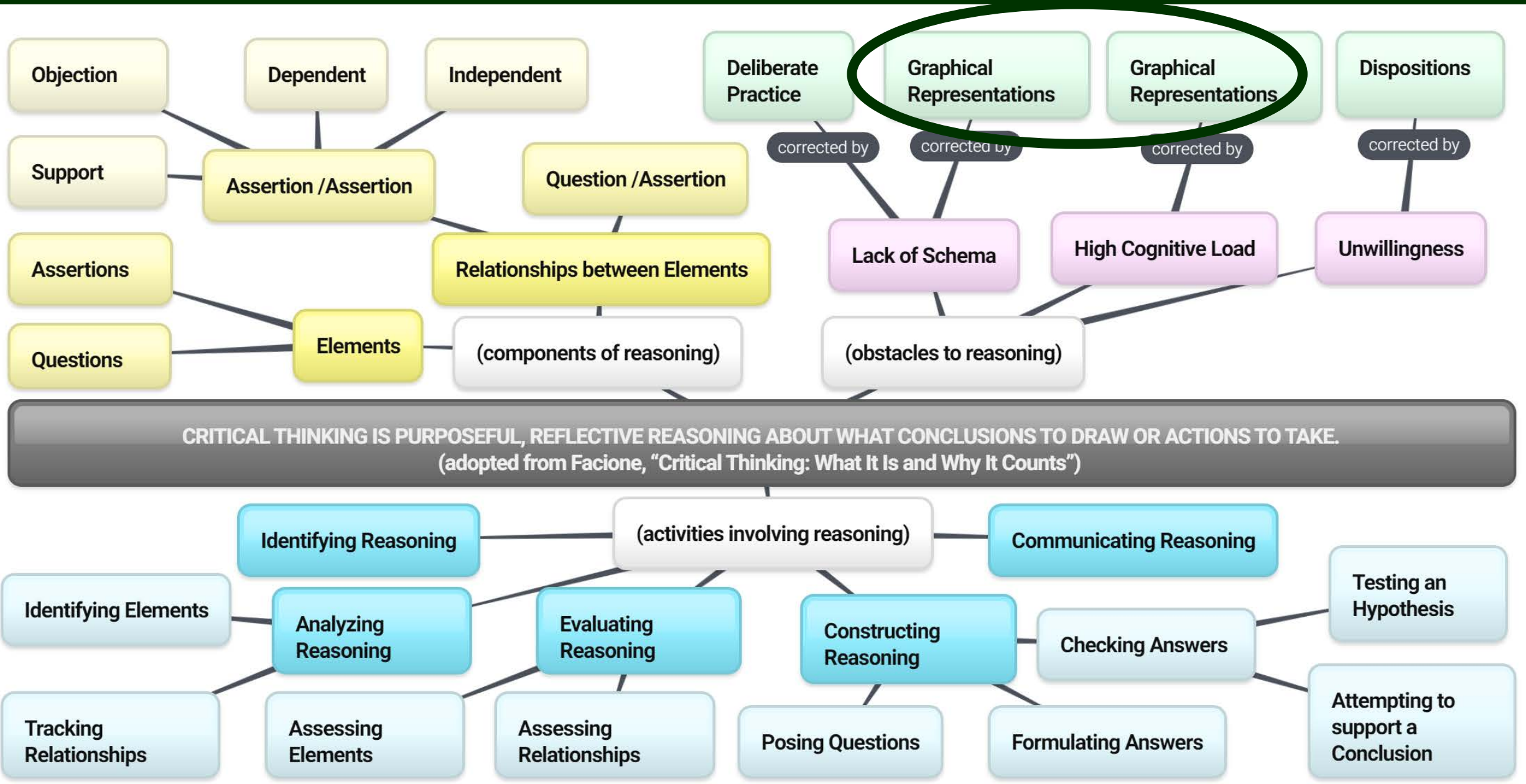
Possible Assessment Instruments (for Later Discussion)

- Pre-Test / Post-Test
- Embedded Multiple Choice Questions
- Short Answer Questions
- Scaffolded Writing Assignments
- Experiment Design
- Lab Reports

Other??

Idea: Assessment Instrument Bank

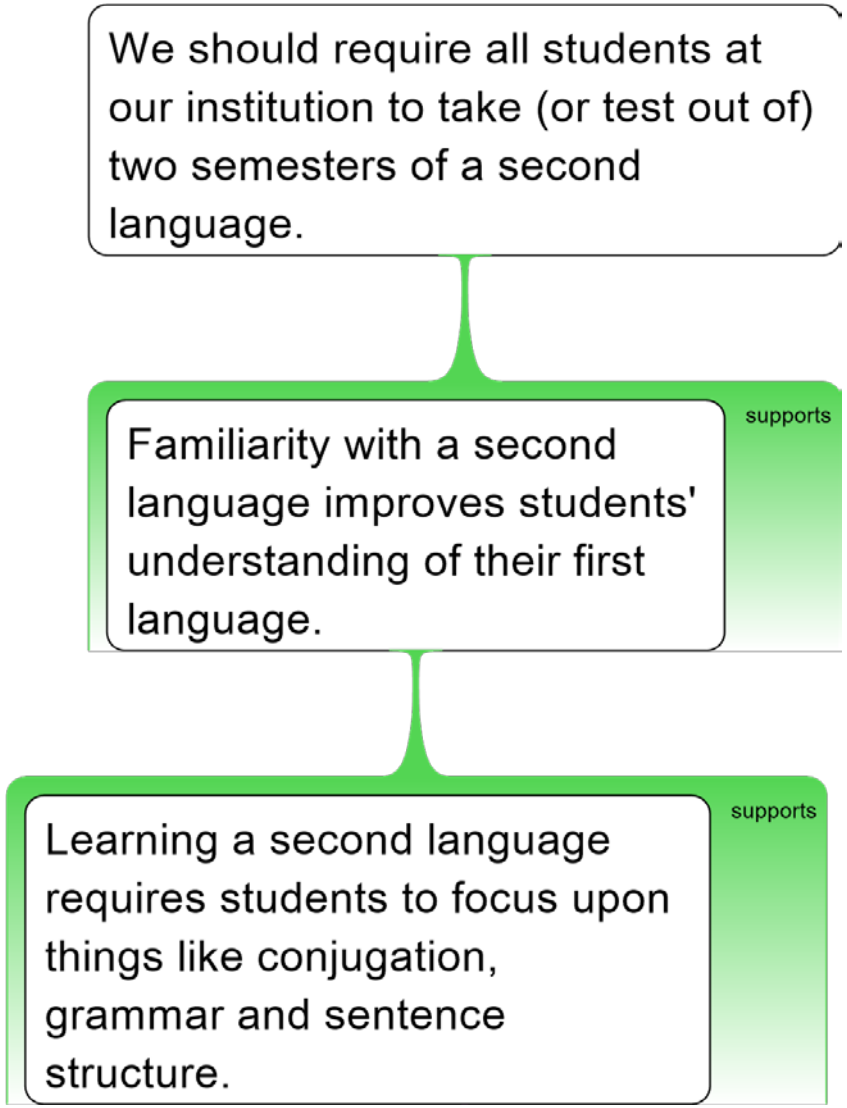
MAPPING REASONING



Reasoning Maps – Support

"Learning a second language requires students to focus upon things like conjugation, grammar, and sentence structure so familiarity with a second language improves students' understand of their first language. Therefore, we should require all students at our institution to take (or test out of) two semesters of a second language."

"We should require all students at our institution to take (or test out of) two semesters of a second language because familiarity with a second language improves students' understand of their first language since learning a second language requires students to focus upon things like conjugation, grammar, and sentence structure."



Reasoning Maps – Evaluating Reasoning

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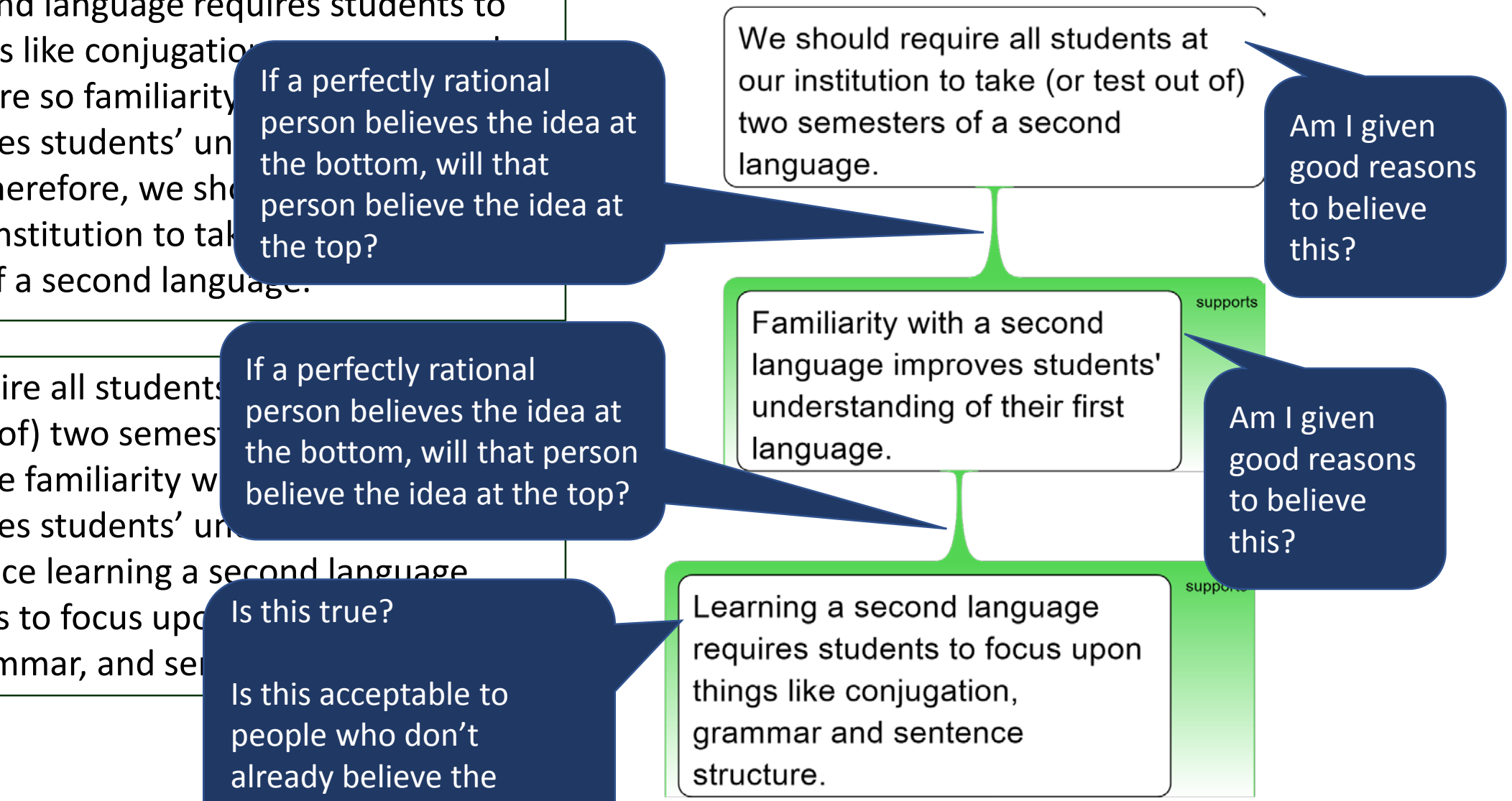
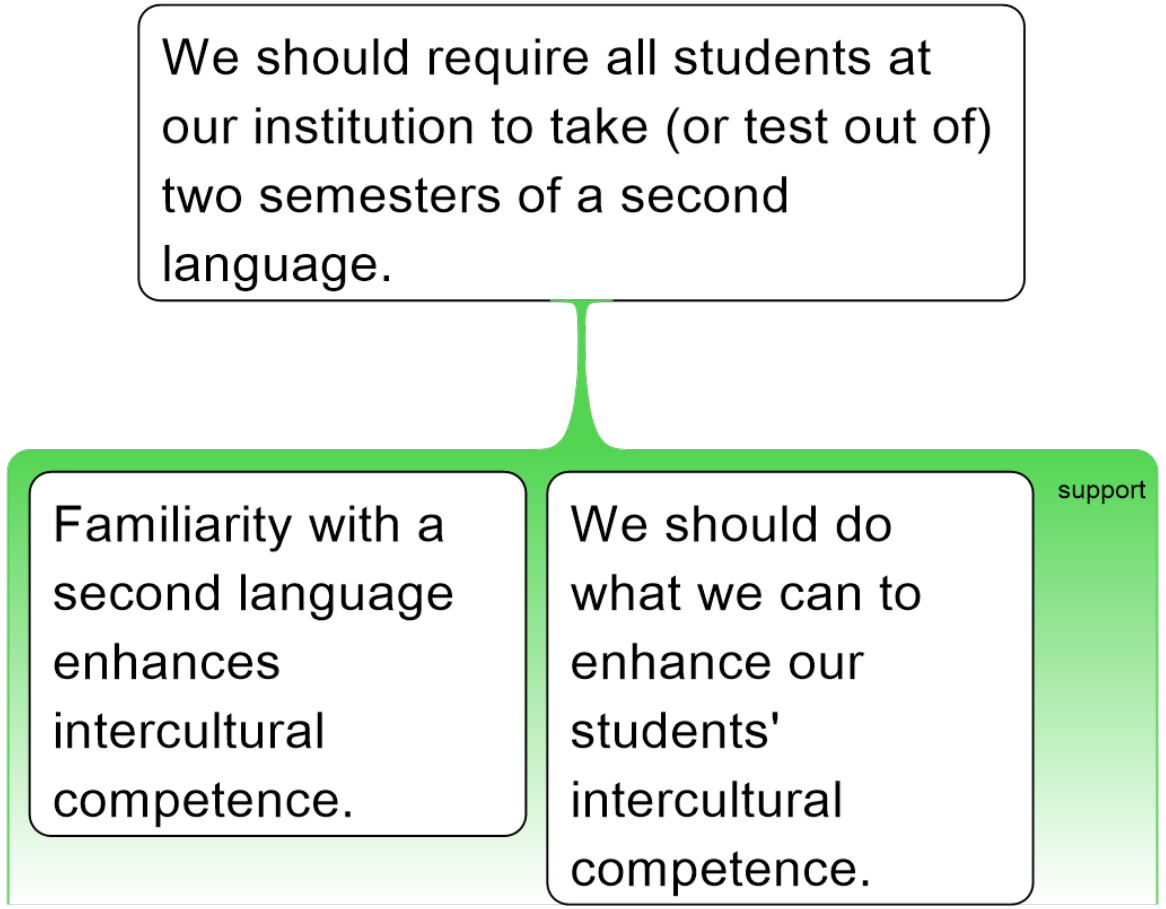


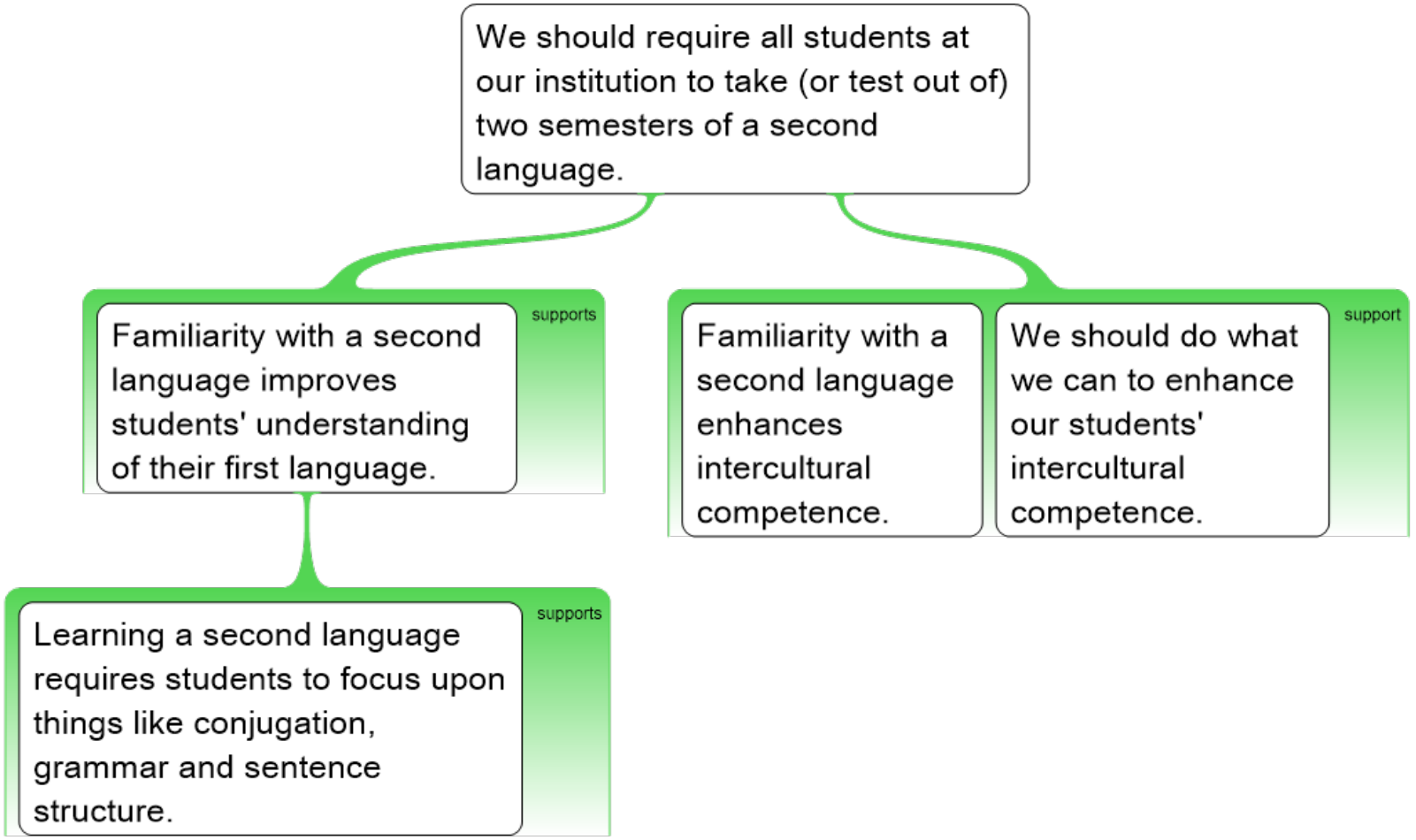
Reasoning Maps – Dependent Reasons

"We should require all students at our institution to take (or test out of) two semesters of a second language because familiarity with a second language enhances intercultural competence and because we should do what we can to enhance our student's intercultural competence."



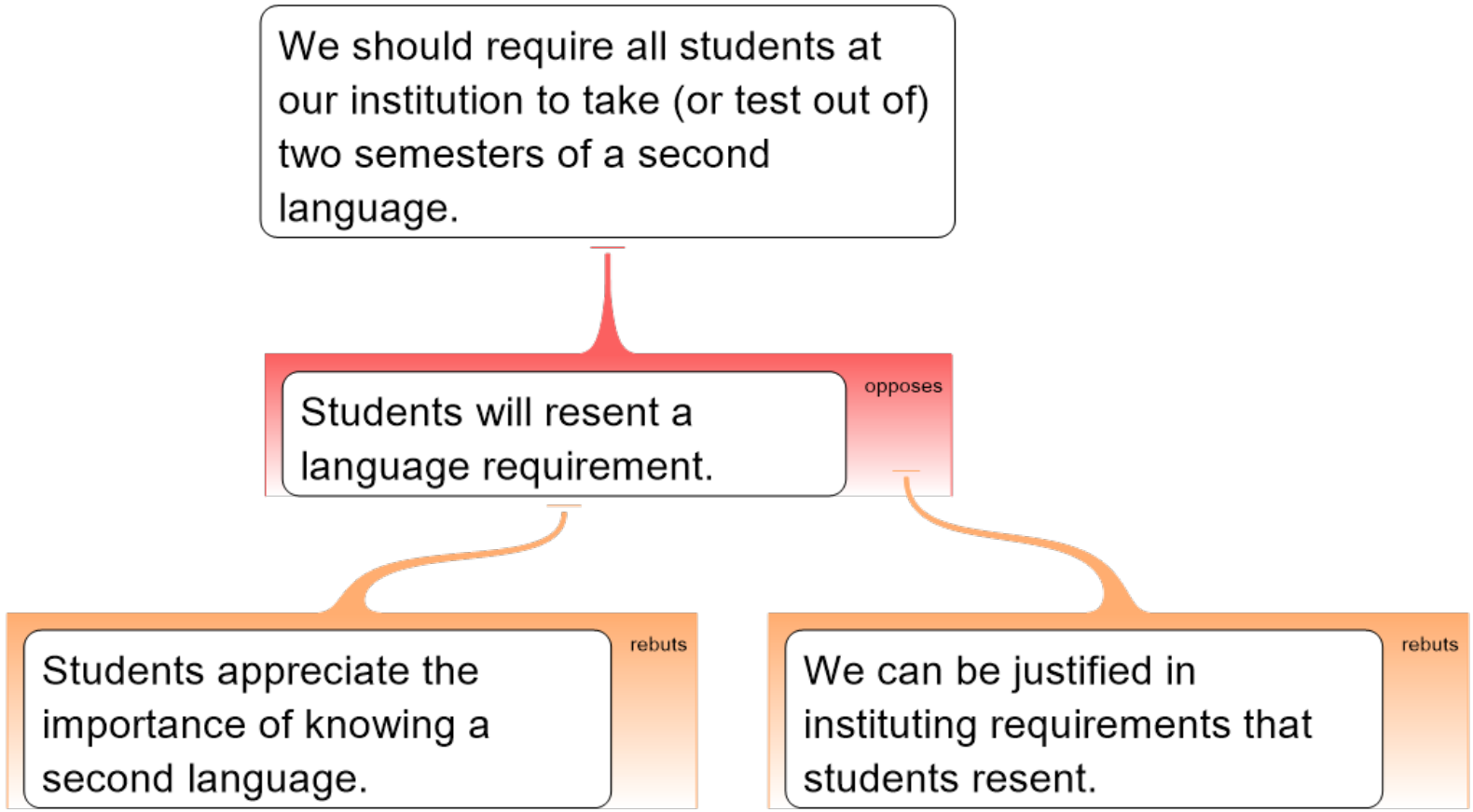
Reasoning Maps – Independent Reasons

"Learning a second language requires students to focus upon things like conjugation, grammar, and sentence structure so familiarity with a second language improves students' understand of their first language. Therefore, we should require all students at our institution to take (or test out of) two semesters of a second language. Additionally, familiarity with a second language enhances intercultural competence and we should do what we can to enhance our students' intercultural competence"



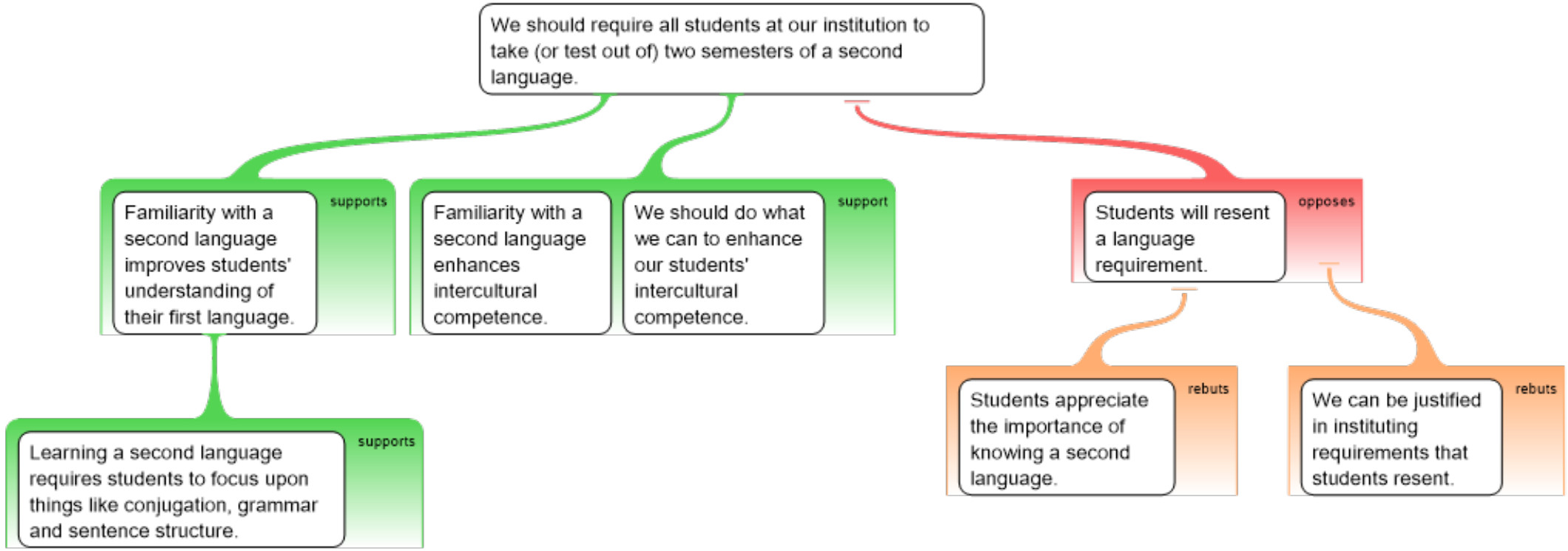
Reasoning Maps - Objection

"We should require all students at our institution to take (or test out of) two semesters of a second language. Some people disagree, maintaining that students will resent a language requirement. In fact, however, students appreciate the importance of knowing a second language. And even if they didn't, we can be justified in instituting requirements that students resent."

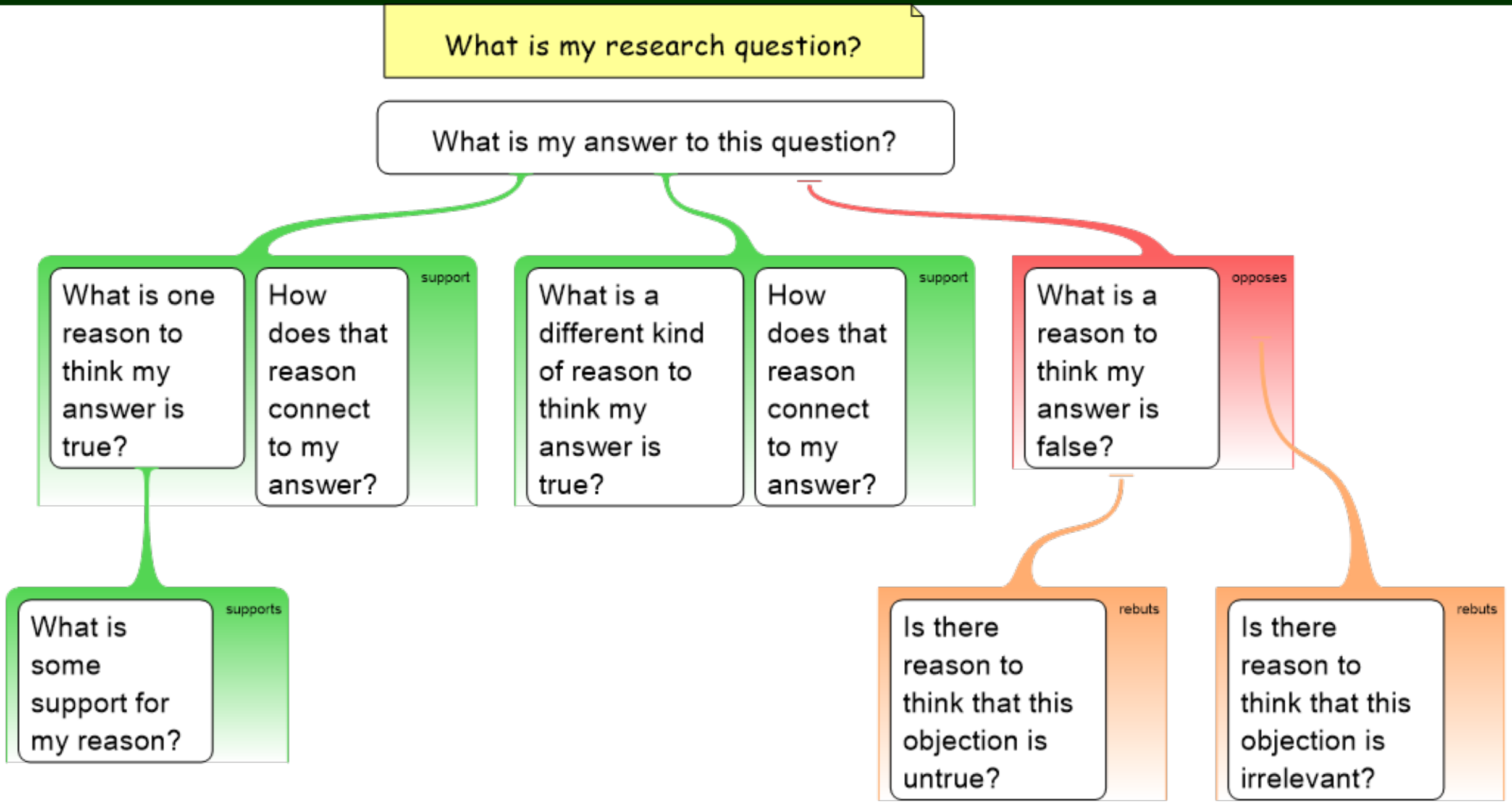


Reasoning Maps - Analyzing

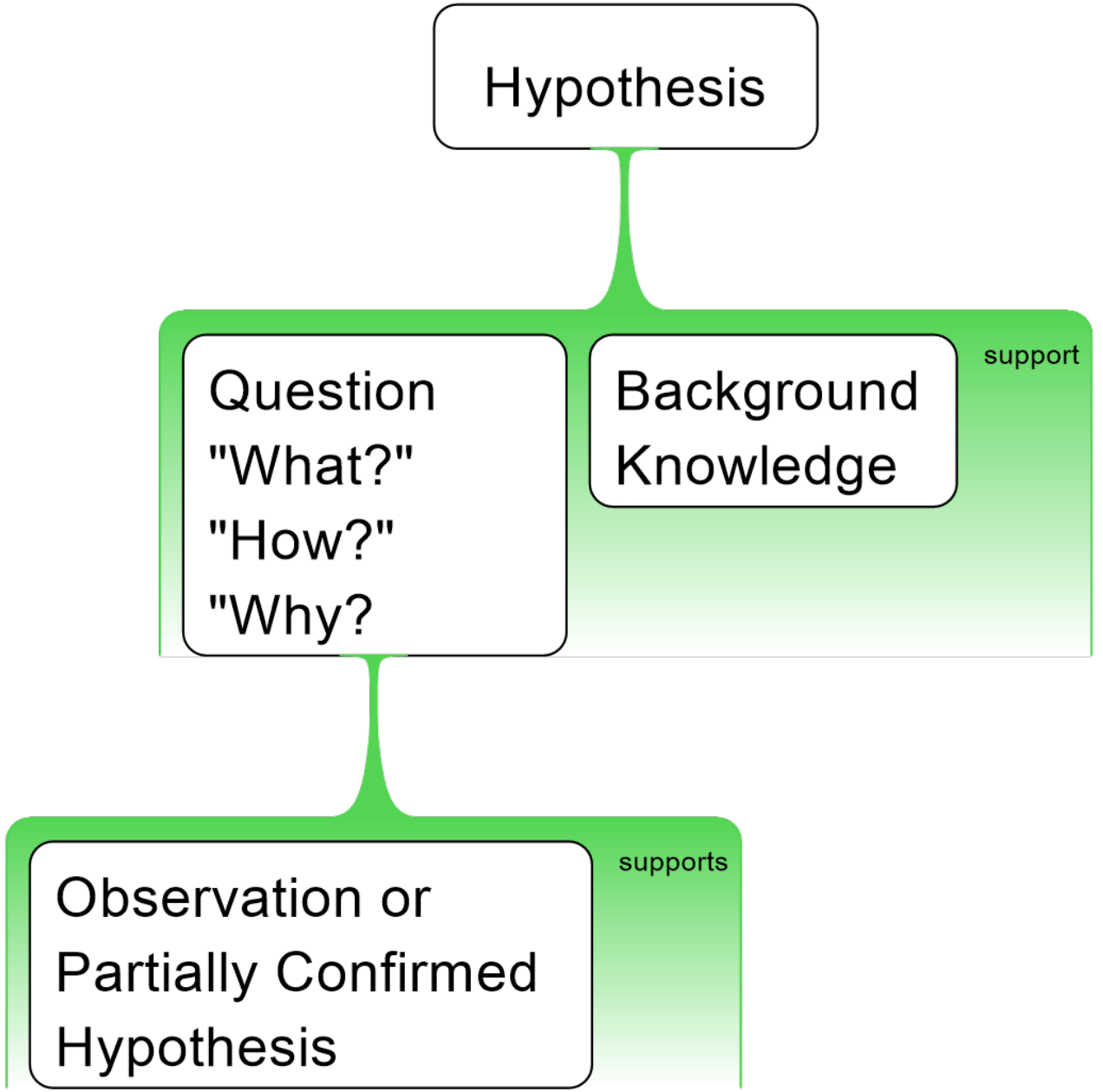
"Learning a second language requires students to focus upon things like conjugation, grammar, and sentence structure so familiarity with a second language improves students' understand of their first language. Therefore, we should require all students at our institution to take (or test out of) two semesters of a second language. Additionally, familiarity with a second language enhances intercultural competence and we should do what we can to enhance our students' intercultural competence. Some people maintain that students will resent a language requirement. In fact, however, students appreciate the importance of knowing a second language. And even if they didn't, we can be justified in instituting requirements that students resent."



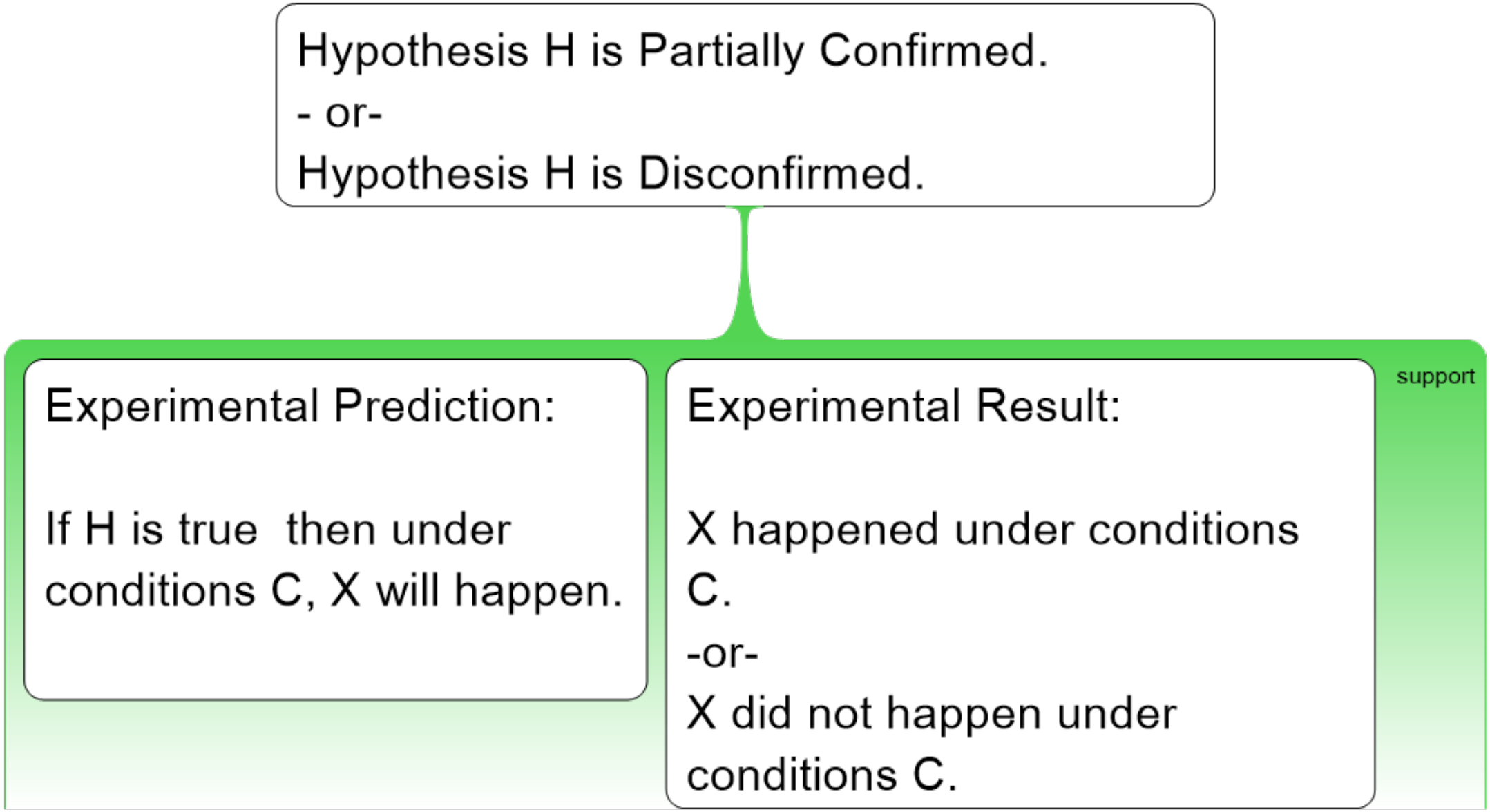
Reasoning Maps - Construction



Reasoning Maps – Hypothesis Generation



Reasoning Maps – Hypothesis Testing



Reasoning Maps – Problem Solving

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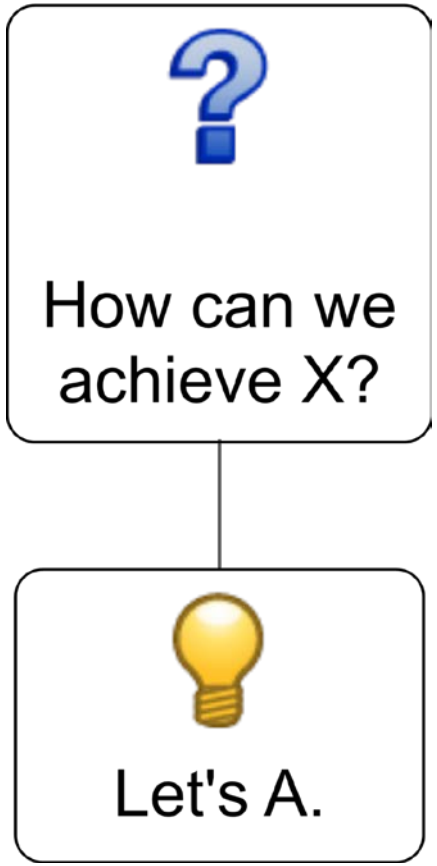
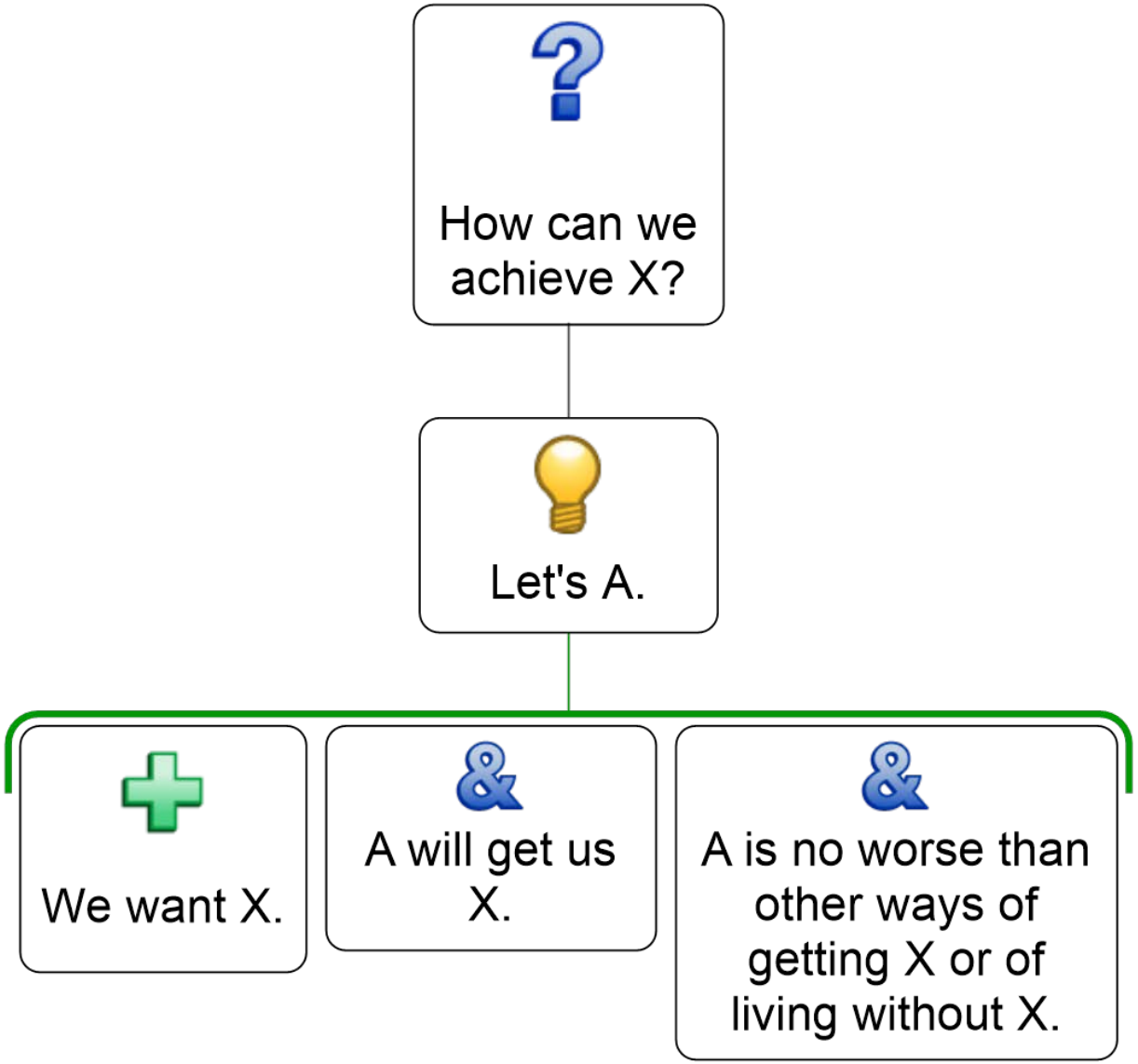
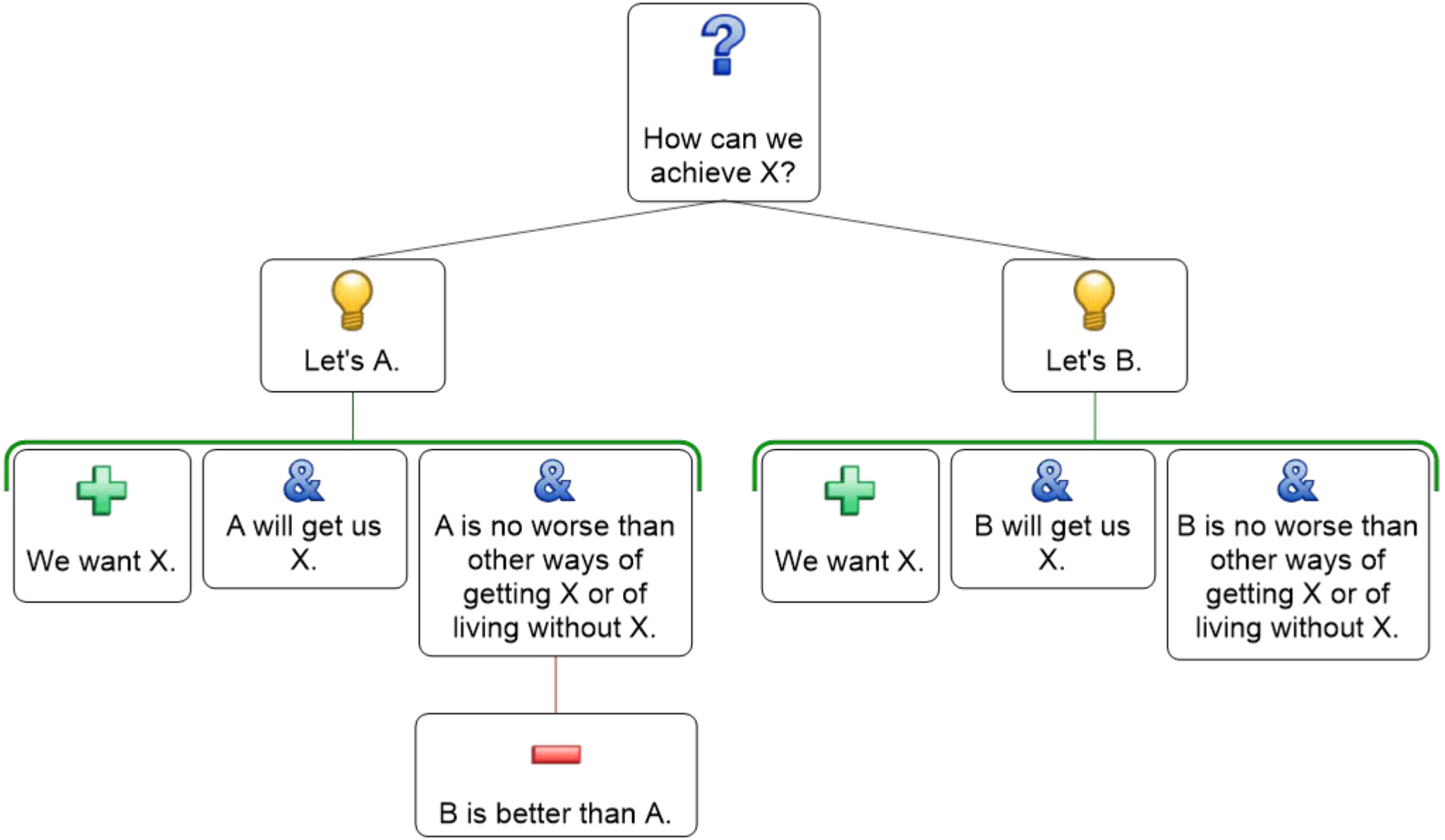


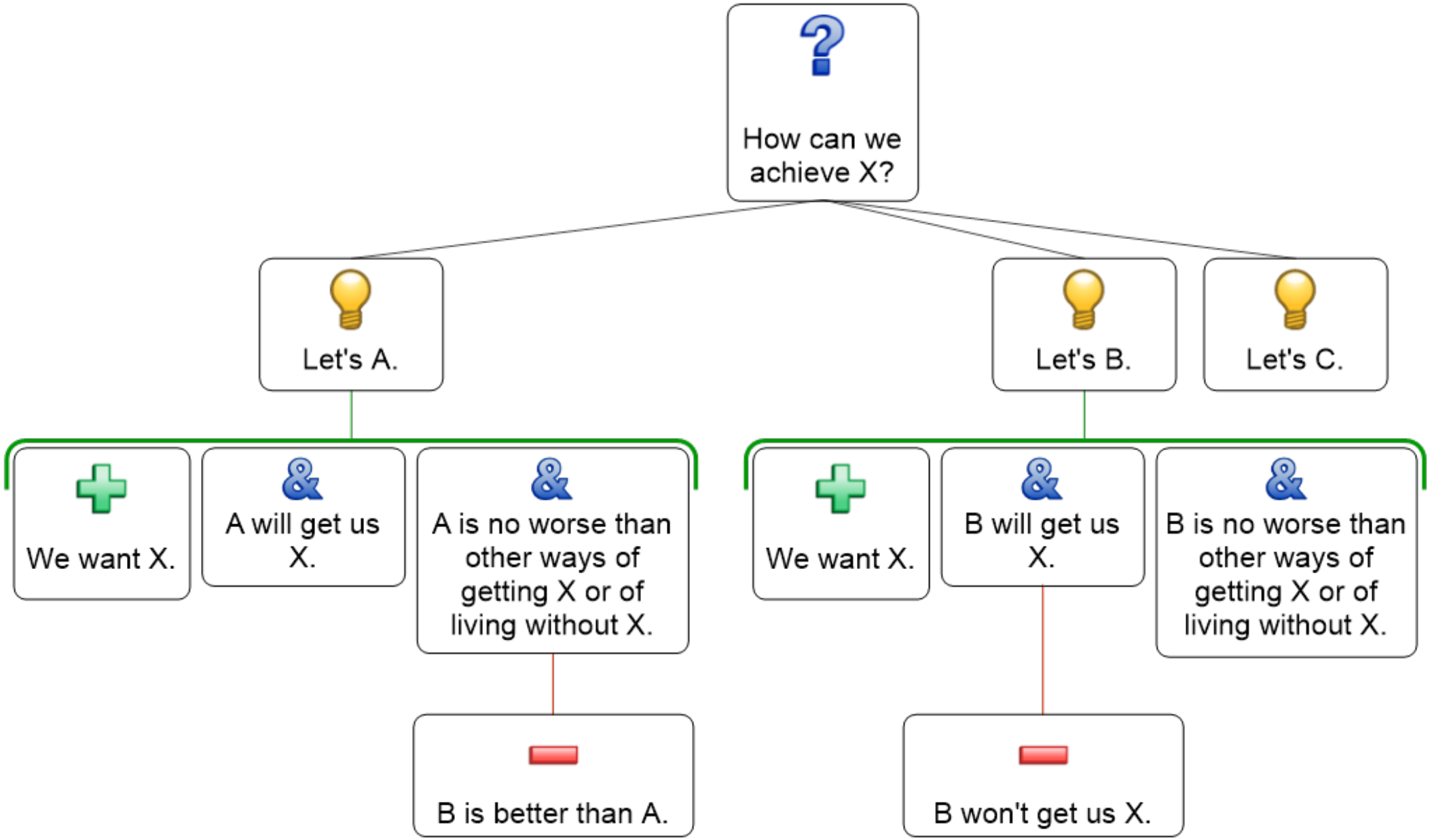
Reasoning Maps – Problem Solving



Reasoning Maps – Problem Solving



Reasoning Maps – Problem Solving



IDENTIFYING YOUR COURSE FOCUS

Critical Thinking Learning Outcomes

Critical Thinking is purposeful, reflective reasoning about what conclusions to draw or actions to take.

With diligent effort on their part, students will

1. Recognize critical thinking as a process of identifying, analyzing, evaluating, and constructing reasoning in deciding what conclusions to draw or actions to take.
2. Identify, analyze, evaluate, or construct reasoning as they apply it to general or discipline-specific questions or issues.

Where should your course focus?

Please take the D2L Survey "Fall 2018 Course Focus" by April 13.

Results

Has Start Date

4/8/2018 Now

Has End Date

4/15/2018 Now

Search

Completion Summary

11 attempts have been completed

Definition

Blah

Learning Outcomes

Blah

Question 1

Which learning outcome(s) do you plan to address in your course?

0 Critical Thinking Ini...

Outcome 1 (Recognize critical thinking as a process of identifying, analyzing, evaluating, and constructing reasoning in deciding what conclusions to draw or actions to take.)		1	(20 %)
Outcome 2 (Identify, analyze, evaluate, or construct reasoning as they apply it to general or discipline-specific questions or issues.)		3	(60 %)
Both Outcome 1 and Outcome 2		1	(20 %)

Question 2

Which of the following broad skill sets do you plan to focus on? Please select all that apply, but it might be a good idea to narrow it down to no more than three.

Modeling critical thinking as a process.		3	(27.27 %)
Identifying reasoning		7	(63.64 %)

Close

Constructing reasoning 3 (27.27 %)

Question 3

If you plan to tailor the critical thinking outcome(s) to your selected focus and your discipline, how might you word your course learning outcome(s) for critical thinking?

Answers

Collapse Responses

- For this coming semester, I don't think I will tailor the learning outcomes-- I will likely use them pretty much as they are.
- To demostrate a geographic perspective when analyzing a phenomena, event, or geographic issue.
- Draft: Provide analyzed data to support your claim. Show trends, comparisons and/or relationships among variables. Defend your evidence using relevant and established scientific concepts.
- My course is taught from a criminology perspective, where the intention is the same but the terminology is different. Arguments are constructed on the basis of inference of evidence, and the authentication of evidence is central to a position. Instead of identifying, the term is investigate. Instead of analysing reasoning, it is deductive reasoning. This leads to preponderance and inductive reasoning. The way I word this, in brief, is to explicitly state the following two expected course outcomes: 1) Introduce the investigative process and develop skills to preserve, evaluate, verify, and authenticate evidence 2) Reconstruct computer crimes using deductive reasoning based on the preponderance of evidence, and use inductive reasoning to build out ideographic digital profiles for computer criminals. Hope this helps.
- Students will identify the application of a specifical theoretical approach (approach = theory + method of data collection) to a particular data set, analyze how the theoretical approach interprets the data set to produce an interpretation, and evaluate how well the application of the theoretical approach has been supported. As a further (but necesssarily higher order) application students will successfully apply a theoertical approach to a data set and support their interpretation.
- I give up! These are te two learning outcomes I would like to refashion to reflect critical thinking objectives • Participants will be able to recognize how humans have affected the climate and be able to identify how past climate changes can be used to understand possible future climate change. • Students will acquire the necessary tools and background to decipher climate change fact from fiction and make informed decisions about future climate policy.
- My current learning outcome that I thought I would work on, related to critical thinking, is: Students will be able to diagnose common insect damage and other common damage agents with examples in the lab and in the field. To add a critical thinking component to that learning outcome, it could read: Students will be able to diagnose common insect damage and other common damage agents in the lab and in the field, and justify the results of the diagnosis through constructive reasoning.
- Use the language of film analysis to break down the component elements of film (visual and auditory signifiers) in order to describe the process of meaning-making and emotional impact in a cinematic text. Maybe? This is just a really quick crack at it. But the idea is to get them to see how films use a variety of visual, auditory, and narrative cues to construct meaning. Arguments, really, about ways to be in the world... Here's the existing LO, which needs revision anyway: "Use the language of film analysis to describe what they see and hear when they watch a movie and to discuss and write critically and effectively about the ways films move us aesthetically, intellectually, and emotionally."

Close

Participants FEG Luncehon Meeting on Friday, March 16, 2018

#	First Name:	Last Name:	Department:
1	Chad	Johnson	CNMT
2	Sarah Jane	Alger	Biology
3	Valerie	Barske	History and International Studies
4	Karin	Bodensteiner	Biology
5	Dave	Dettman	Library
6	Todd	Huspeni	Academic Affairs
7	Aaron	Kadoch	IA
8	Samantha	Kaplan	Geography and Geology
9	Mary Jae	Kleckner	SBE
10	Vera	Klekovkina	WLL
11	Tim	Krause	CNMT
12	Dejan	Kuzmanovic	English
13	Thomas	Lentz	Biology
14	Lyna	Matesi	Business & Economics
15	Ismaila	Odogba	Geography and Geology
16	Jodi	Olmsted	SHCP
17	Holly	Petrillo	CNR/Forestry
18	Cady	Sartini	CNR-Wildlife
19	Nancy	Shefferly	Biology
20	Krista	Slemmons	Biology
21	Lisa	Theo	Geography
22	Sterling	Wall	HPHD
23	Dona	Warren	Philosophy
24	Emily	Wisinski	Writing Lab, University College
25	Jason	Zinser	Philosophy

[3/13/18]