

# Understanding Critical Thinking and Rigorous Tasks

PS 175 Professional Learning Team

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## 3 Components of Rigorous Critical Thinking

1. Assess the issue
2. Assess different options
3. Use relevant criteria

## Supportive Language

**Cognitive Demand** represents the type of thinking (mental act of process), level and depth of complexity of thought a person engages in when working through a task.

# Framework for Understanding Critical Thinking

<b>Fives Types of Intellectual Resources for Students to Engage in Critical Thinking</b>
1. Background knowledge
2. Criteria for judgment
3. Critical thinking vocabulary
4. Thinking strategies
5. Habits of mind

**Jigsaw Group Work:** 10 minutes.

- Review the Intellectual Resources on page 7 with the members of your group.
- Summarize the resource that shares the same number as your given group.
- Write the summary on the provided half-sheet of chart paper.

## Illustration of Case's Framework as it relates to Bloom's Taxonomy

<b>Bloom's Taxonomy Major Category</b>	<b>Original Task</b>	<b>Revised Task</b>
Knowledge	Who are the members of your family?	Describe the members of your family in a way that makes me "see" what each one is like.
Comprehension	Give examples of the ways in which families interact with each other.	What are three different ways in which each of your family members interact with each other? Explain how these different interactions affect each family member.
Application	In what ways is your family a typical American family?	How does your family fit into the prevailing views of a typical American family in the 1950's?
Analysis	How do the members of a family support each other?	How would you differentiate the contributions of the different members of your family in terms of most and least valuable?
Synthesis	Describe the perfect family.	Describe the perfect family who lives a sustainable lifestyle.
Evaluation	What makes a healthy family?	Evaluate the health of your family by comparing the least healthy members with the most healthy ones.

## Where does rigor in thinking lie?

Task/ Operation	Quality/ Characteristics
<ul style="list-style-type: none"> <li>• Interpreting a passage</li> <li>• Predicting a result</li> <li>• Analyzing an issue</li> <li>• Preparing a talk</li> <li>• Designing an experiment</li> </ul>	<ul style="list-style-type: none"> <li>• Superficially or in-depth</li> <li>• Discerningly or blindly</li> <li>• Seriously or frivolously</li> <li>• Carefully or hurriedly</li> <li>• Rashly or cautiously</li> </ul>

## Assessing Rigor in the Student Task

- **Inquiry Group Work:** 30 minutes
- Break into Inquiry Groups
- Inquiry Group 1:
  - Review the selected task, and ask the following questions:
    - Where does the rigor lie within the task?
    - What improvements can we make to the selected task?
- Inquiry Groups 2 and 3:
  - Review the selected task, and ask the following question:
    - Where does the rigor lie?
  - Begin the new inquiry cycle using the task on hand.
- Use the **Rigor Review** template to give direction to your group's findings.

## Rigorous Tasks

- Use the following questions to guide your group's thinking while analyzing your respective task:
  1. Does the task require students to analyze errors and explain confirming or flawed thinking? If so, how?
  2. How does the task ask students to question their thinking?
  3. Does the task requires students to question each other's thinking and/ or clarify assumptions?
  4. Does the task require students to produce a tangible product or purpose for an audience who could benefit from this work?

## For Future Exploration

- If we as leaders can discern cognitively and developmentally appropriate level tasks, then what might contribute to the greater frequency of task in classroom lessons that require lesser cognitive demand?
- What beliefs/ bias might influence how I assess the quality of rigor/ cognitive demand captured during classroom visits?
- In what ways do the interactions of stakeholders in the school promote rigorous engagement?