

# **Thinking Devices:**

**Engaging students through prompts that they  
can't resist talking about  
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**The Kansas Coaching Project**

**Thinking Devices**

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# THINKING DEVICES AT A GLANCE

## What Are Thinking Devices?

Thinking Devices are provocative objects that teachers can use to prompt dialogue and higher order thinking.

## Why Should Teachers Use Thinking Devices?

Thinking Devices serve several purposes. They prompt dialogue in the classroom, capture student attention, enable students to see connections between new content and prior knowledge, and reinforce positive cultural norms.

## What Are Some Examples of Thinking Devices?

- Video clips, movie clips, or short videos from online sites such as YouTube
- Cases or short stories that portray situations that are interesting, complex, or unresolved (such as social problems in need of a solution)
- Newspaper or other media reports on current events
- Cartoons
- Songs (with a message)
- Quotations
- Poems
- Word problems
- Artifacts

## What Are the Characteristics of Effective Thinking Devices?

Thinking Devices should be provocative, complex, concise, humanizing, varied, and “not lame.”

## How Are Thinking Devices Used in The Classroom?

We suggest teachers employ the “Cue, Do, Review” routine first described by Keith Lenz:

- **Cue:** Provide students with an advance organizer so that they know what they are about to do, why it is relevant, and how they should respond to the device
- **Do:** Walk through the device and use effective facilitation techniques to encourage student comments and dialogue and build connections
- **Review:** Summarize what has been discussed, what has been learned, and how the thinking device links to the next learning activity.

# IC Cheat Sheet

1. Partner with the teacher to identify where a Thinking Device might be appropriate for student learning.
2. Brain storm possible Thinking Devices with collaborating teachers.
3. Consult the Quality Thinking Device Checklist to develop a quality device.
4. Use the Cue, Do, Review teaching routine to teach the device.
5. Reflect on the device to consider (a) what it is intended for, (b) what really happened, (c) what should be changed if anything in the way you use the device.

# QUALITY THINKING DEVICE CHECKLIST

The Thinking Device is...	√	Comments
Provocative: The device is so compelling that after experiencing it students can't help but have something to say.		
Complex: The device does not suggest a simple right or wrong answer but can be viewed "correctly" from a number of perspectives.		
Concise: The device briefly communicates a complex, powerful message.		
Humanizing: The device fosters positive human emotions or inspires others to do good/realize their potential.		
Varied: The device is different from the other forms of thinking devices used previously in the class.		
Not lame: The device deals with an issue and communicates in a way that students genuinely find interesting.		

**ADDITIONAL COMMENTS:**

# CUE, DO, REVIEW CHECKLIST

**Name:** \_\_\_\_\_ **Date:** \_\_\_\_\_ **Course:** \_\_\_\_\_

TEACHING BEHAVIOR	✓	COMMENTS
<b>CUE</b>		
Explain that you will be sharing a thinking device		
Explain how it will help students learn		
Specify the actions they need to do		
<b>DO</b>		
Share the thinking device		
Ask several high-level, appropriate questions		
Listen actively to all students		
Reinforce all responses		
Accelerate conversation and learning by repeating and focusing complex student comments		
Help students make sense of the discussion suggesting connections between various comments		
<b>REVIEW</b>		
Summarize the main points that have been raised during the discussion		
Make connection to next learning activities		
Prompt students to do an extension activity (optional)		

# FACILITATING DIALOGUE IN THE CLASSROOM

- Establish respectful norms for all classroom dialogue (respect each response, listen to others before talking, wait until speaker is finished before raising your hand to talk, don't blurt out responses and so forth). There are no "right" norms. Each student and teacher is unique, but it is important that classroom norms are consistent.
- Use high-level, effective questions. (See the Effective Questions Manual).
- Listen empathetically to all student responses.
- Encourage students by frequently offering authentic praise. (See Classroom Management Manual).
- When a student's comments are convoluted or confusing, listen intently to decipher the student's main idea, paraphrase the main idea using simple language, and then ask the student if you've heard him or her correctly.
- Suggest connections between various ideas offered by students.
- Keep the dialogue session short enough so that all students remain engaged.

## GOING DEEPER

Paulo Freire's classic work *Pedagogy of the Oppressed* was the major influence in the development of the concept of "thinking devices." In *Pedagogy of the Oppressed*, a book of philosophy as much as it is a book about education, Freire contends that our ability to reflect is an essential part of our humanity. Freire says people's identity as "beings of praxis" distinguishes them from animals, "which are beings of pure activity." Consequently, any mode of discourse that omits reflection is dehumanizing (Freire, 1970).

Freire contrasts two approaches to teaching: "banking education" and "liberation education." In banking education, there is an active teacher who puts deposits of knowledge into the passive, receptive students. Banking education, because it provides no opportunity for students to think on their own, is, Freire contends, oppressive because it turns students into objects. "The more the oppressors control the oppressed, the more they change them into apparently inanimate things" (p. 46). Consequently, "the oppressed, as objects, as things, have no purposes except those their oppressors prescribe for them" (p. 46). Banking education offers no opportunity for reflection. Freire sums up his view by stating, "the antidialogical [people] ... aim at conquering ... presenting themselves as saviors of the men they dehumanize and divide" (p.133 & 142).

Freire's liberation education is "education as the practice of freedom--as opposed to education as the practice of domination," a process in which teacher and student are equally responsible for growth. Liberation education is a movement away from teacher as thinker and student as doer; it is co-intentional learning, which can be achieved only through dialogue. Freire observes that since liberation education is enabled by praxis, involving everyone's reflection on experience, the experience of each participant and educator has equal importance. Freire suggests that through problem-posing dialogue, through mutual inquiry and dialogue, a true partnership between students and teachers can be achieved.

One way of facilitating this true partnership between teacher and student is to share Thinking Devices, which Freire refers to as "cognizable objects." Thus a teacher can present a thinking device to students, and ask them their opinions or feelings about the device they experienced, and students can share their honest responses, others students can become and engaged in the conversation, and thus the process of dialogue can begin.

Freire, P. (1970 ). *Pedagogy of the oppressed*. New York: Continuum.