



## Think-Turn-Talk

A Presentation for Middle School and High School Teachers







## Big Ideas

- Routine for engagement & comprehension
- Intentional use of questioning
- Planning in advance of the lesson





#### **Session Goals**

- Reinforce the importance of planned discussions during lessons.
- Focus on an instructional routine (Think-Turn-Talk) to increase student engagement through planned discussion.
- Experience using Think-Turn-Talk.
- Practice and plan to use the Think-Turn-Talk routine.





Why should we use

#### THINK-TURN-TALK?







#### The Power of Think-Turn-Talk

- 1. Engagement
- 2. Comprehension
- 3. Think-time
- 4. Process Information
- 5. Safer Environment
- 6. Application
- 7. Accountability
- 8. Assessment







#### Engagement

 "Student motivation and engagement should have a high priority in efforts to improve adolescent literacy outcomes." One powerful method proven to increase motivation, is when teachers create opportunities for students to engage in discussions focused on learning and understanding from text.

(Torgesen et al., 2007, pp. 53-54)



## Comprehension

- Participation in text discussion during reading is a direct way to increase students' ability to think about and learn from text.
- High-quality discussion of difficult text can significantly enhance student comprehension.
- "Taking time to build deep understanding through discussion must necessarily affect the breadth of content covered in a given class."

(Torgesen et al., 2007, pp. 38-39)



#### Think-time

#### Positive effects on students:

- "The length and correctors of their responses increase.
- The number of their 'I don't know' and no answer responses decreases.
   The number of their 'I don't know' and no answer by
- The number for the desired appropriate answers by larger numbers of students greatly increases.
- The scores of students on academic achievement tests tend to increase."

(Stahl, 1994)



#### Think-time

#### Positive effects on teachers:

- "Their questioning strategies tend to be more varied and flexible.
- They decrease the quantity and increase the quality and variety of their questions.
- They ask additional questions that require more complex information processing and higher-level thinking on the part of students."



#### **Process Information**

- "Teachers need to keep attentional demands to short bursts of no longer than the age of their learners in minutes. For a 1st grader, that's about 6 consecutive minutes; for a high schooler, that's up to 15 minutes.
- Teachers ought to spend 55-80 percent of their time allowing students to process information."

(Jensen, 1998, pp. 43-44)



#### Safer Environment

 "Students with LD prefer to work in pairs (with another student) rather than in large groups or by themselves."

(Vaughn, Hughes, Moody & Elbaum, 2001, p. 134)

 Be thoughtful when creating pairs or students or small groups of students together to share their thinking.



## **Application**

 "...the brain learns best when it 'does', rather than when it 'absorbs' [Pally, 1997]. Thus, all students must think at a high level to solve knotty problems and to transform the ideas and information they encounter."

(Tomlinson & Kalbfleisch, 1998, p. 54)



## Accountability

- Think-Turn-Talk sends a message to students that they are all accountable for the thinking during the lesson.
- "Dead time interferes with students' learning, and it is contagious. It lures those who are on task into wondering, 'Why should I pay attention if others aren't?'"

http://www.edutopia.org/classroom-student-participation-tips



#### Assessment

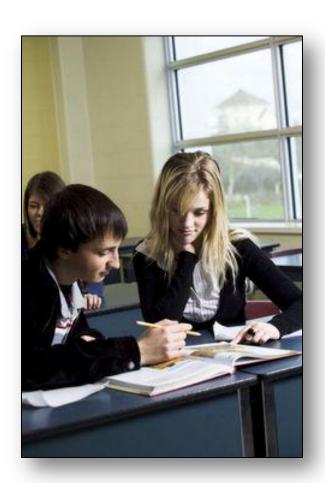
 Many teachers take notes of what they hear students discussing. The qualitative data enhance the quantitative data that we collect through formal assessments. We can use the evidence we hear, as students discuss, to adapt instruction to meet student needs. When we use effective questions and take time to ask students, "What makes you think that?" we show them that we are truly interested in what they think.

(Wiliam, 2005)



#### The Power of Think-Turn-Talk

- 1. Engagement
- 2. Comprehension
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#### Let's Practice!

**Think** 

Turn

Talk

How might the implementation of Think-Turn-Talk make a difference in your classroom?







#### **Think**

How were you affected by having 8 seconds to Seconds to Seconds to answer?









# Intentionally Plan Opportunities for THINK-TURN-TALK





#### When Can You Use Think-Turn-Talk?

Every lesson...

Every day...

Every content area...



#### **Process Information**



"Teachers ought to spend 55-80 percent of their time allowing students to process information."

(Jensen, 1998, p. 44)



- Explicitly discuss expectations
   with students for how they are to
   share their thinking with a
   partner or group
- Think about how you will pair or group students
- Randomly select students to share thinking with the whole class



http://youtu.be/X02F9DlkPJg



Plan stops and questions well in advance.

Where will you stop? Why will you stop there?

- What is the critical information?
- Is there a part that students will need support in understanding?
- How long have students been focused without an opportunity to interact?





- Ask questions that involve critical thinking, opinion, or an extended answer.
  - Specific: "Why does ...?"
  - General: "What are you thinking?"
- Ask questions that relate to the CPQ.
- Ask questions that reinforce the cognitive strategy you are focusing on in the lesson.
- Write questions on sticky notes and place them in your copy of the text as a reminder where to stop and what question you will ask.





- After a student shares their thinking, ask them to expand on their answer and explain why they think what they do.
- Follow-up student sharing with immediate and corrective feedback.



#### Features of Effective Instruction

#### **Immediate and Corrective Feedback**

1. Describing why an answer is correct.

#### **Examples:**

- Describing why the work was good/well done
- Commenting on specific word usage
- Explaining correct responses by one student to the whole class
- Confirming a student's performance

(Texas Education Agency/University of Texas System, 2007)



#### Features of Effective Instruction

#### **Immediate and Corrective Feedback**

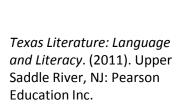
- 2. Specifying or implying a better way of doing something. Examples:
  - Advising students to begin a task again
  - Modeling expectations again
  - Building on a student's response
  - Asking students to compare with other examples
  - Showing students how to make specific corrections

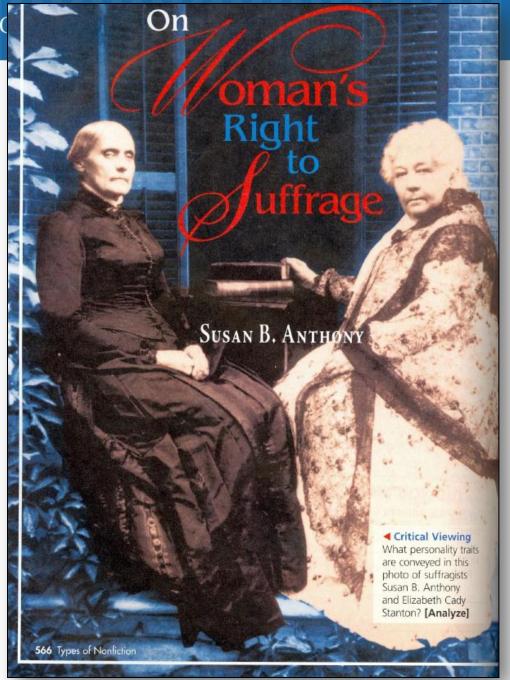
2007)



Handout #1

CPQ: What are the key points to Susan B. Anthony's argument for why women should get to vote?









#### 1873—Friends and fellow citizens:

I stand before you to-night under indictment for the alleged crime¹ of having voted at the last presidential election, without having a lawful right to vote. It shall be my work this evening to prove to you that in thus voting, I not only committed no crime, but, instead, simply exercised my citizen's rights, guaranteed to me and all United States citizens by the National Constitution, beyond the power of any State to deny.

The preamble of the Federal Constitution says:

"We, the people of the United States, in order to form a more perfect union, establish justice, insure *domestic* tranquillity, provide for the common defense, promote the general welfare, and secure the blessings of liberty to ourselves and our **posterity**, do ordain and establish this Constitution for the United States of America."

#### **Fact and Opinion**

Distinguish between fact and opinion by identifying one fact and one opinion in this paragraph.

Which part of the Constitution is she referring to when she says that she simply exercised her citizen's rights?

posterity (päs ter' e të) n. future generations





It was we, the people; not we, the white male citizens; nor yet we, the male citizens; but we, the whole people, who formed the Union. And we formed it, not to give the blessings of liberty, but to secure them; not to the half of ourselves and the half of our posterity, but to the whole people—women as well as men. And it is a downright mockery to talk to women of their enjoyment of the blessings of liberty while they are denied the use of the only means of securing them provided by this democratic-republican government—the ballot.

For any State to make sex a qualification that must ever result in the disfranchisement of one entire half of the people is to pass a bill of attainder, or an *ex post facto* law,<sup>2</sup> and is therefore a **violation** of the supreme law of the land. By it the blessings of liberty are for ever withheld from women and their female posterity. To them this government has no just powers **derived** from the consent of the governed. To them this government is not a democracy. It is not a republic. It is an odious aristocracy;<sup>3</sup> a hateful oligarchy of sex; the most hateful aristocracy ever established on the face of the

mockery (mak' ər ē) n. false, insulting action or statement

violation (vi' ə lā' shən) n. the breaking or ignoring of rules, laws, or rights

derived (di rīvd') v. received or taken from a source

Why does she say it's a mockery? What is she talking about?

What crime did Anthony commit?

Indictment (in dit' ment) for the alleged (e lejd') crime in law, a written statement charging a person with supposedly committing a crime.

<sup>2.</sup> bill of attainder . . . ex post facto law two practices specifically outlawed by the U.S. Constitution. A bill of attainder declares someone guilty without a trial. An ex post facto law applies to acts committed before the law was passed.

odious (ō' dē as) aristocracy (ar' i stä' kra sē) hateful system based on inherited wealth and power.



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What does she mean in this part of her argument?

What crime did Anthony commit?

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#### Vocabulary rebellion (ri bel' yən)

n. open resistance to authority or dominance

immunities (i myoon

Why does she think that the government is an oligarchy and how will it cause a rebellion?

#### Spiral Review

Main Idea What is Anthony's main idea in the final paragraph and how does she support it? globe; an oligarchy of wealth, where the rich govern the poor. An oligarchy of learning, where the educated govern the ignorant, or even an oligarchy of race, where the Saxon rules the African, might be endured; but this oligarchy of sex, which makes father, brothers, husband, sons, the oligarchs over the mother and sisters, the wife and daughters of every household—which ordains all men sovereigns, all women subjects, carries dissension, discord and rebellion into every home of the nation.

Webster, Worcester and Bouvier all define a citizen to be a person in the United States, entitled to vote and hold office.

The only question left to be settled now is: Are women persons? And I hardly believe any of our opponents will have the hardihood to say they are not. Being persons, then, women are citizens; and no State has a right to make any law, or to enforce any old law, that shall abridge their privileges or immunities. Hence, every discrimination against women in the constitutions and laws of the several States is to-day null and void, precisely as in every one against negroes.

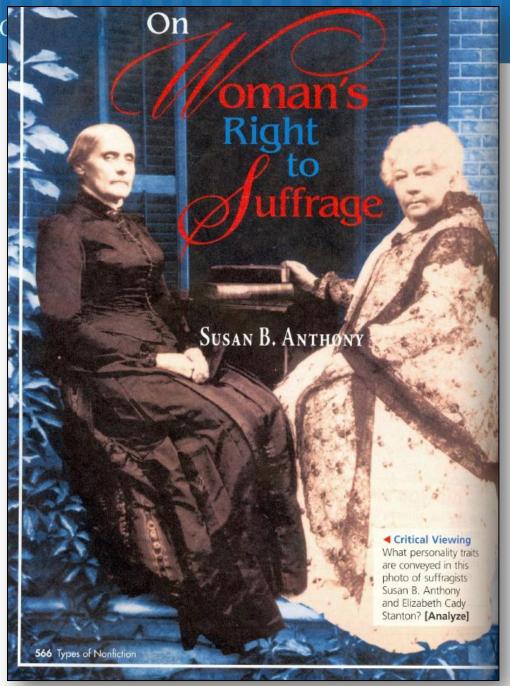
oligarchy of race . . . endured Anthony refers to a racist nineteenth-century belief, held even by some abolitionists, that whites ("the Saxon") were the natural rulers of African Americans.



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CPQ: What are the key points to Susan B.
Anthony's argument for why women should get to vote?

Texas Literature: Language and Literacy. (2011). Upper Saddle River, NJ: Pearson Education Inc.





## Chapter 13

Central Nervous System Chapter 13

Handout #2

# **CPQ:** What is important to understand about functional areas of the cortex?

#### FUNCTIONS OF THE CEREBRAL CORTEX Functional Areas of the Cortex During the past death

During the past decade or so, research scientists in various fields—neurophysiology, neurosurgery, neuropsychiatry, and others—have added mountains of information to our knowledge about the brain. However, questions conference faster than answers, and clear, complete understanding of the brain's mechanisms still eludes us. Perhaps it always will.

Perhaps the capacity of the human brain falls sh ability to fully understand its own complexity. We do know that certain areas of the cortex in e sphere of the cerebrum engage predominantly in e ular function—at least on the average. Difference genders and among individuals of both genders a common. The fact that many cerebral functions h

cal location is known as the concept of cerebral localization.

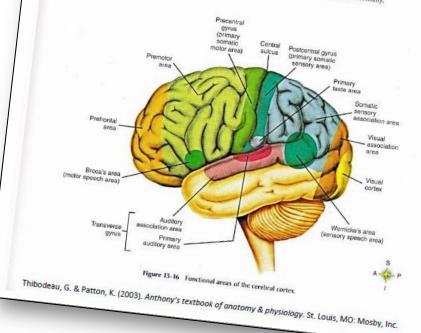
The fact that localization of function varies from person to person, and even at different times in an individual when the brain is damaged, is called cerebral plasticity.

The function of each region of the cerebral cortex depends on the structures with which it communicates. For example, the postcentral gyrus (Figures 13-16 and 13-17) civil analysis a general somatic sensory area. It receives impulses from receptors activated by heat, cold, and tools chiefly as the somatic motor area (see Figures 13-16 and 13-17). Impulses from neurons in this area descend over askeletal muscles. The transverse gyrus of the temporal lobe serves as the primary auditory area. The primary visual areas are in the occipital lobe. It is important to remember that no central nervous system must function together for any one part of the brain functions alone. Many structures of the part of the brain function normally.

#### You Do!

- Read Functions of the Cerebral Cortex.
- Track your thinking as you read.
- Plan 3 places where you would ask students to stop and answer a TTT question.
- Share your questions with a partner.

Thibodeau, G. & Patton, K. (2003). *Anthony's textbook of anatomy & physiology*. St. Louis, MO: Mosby, Inc.







"Teachers do not create learning. Learners create learning. Teachers create the environment for learning."

(Wiliam, 2005)





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