

## UNIT A: LESSON 7

### LEARNING TARGETS

#### INSTRUCTIONS FOR TEACHERS:

- Refer students to the standards and objectives.
- Review the standards and objectives with students one at a time.
- At the end of the lesson, ask students what they did in class to meet the standards.

#### INSTRUCTIONS FOR STUDENTS:

Listen as your teacher reviews the standards and objectives. Your teacher will call on an individual or pair to explain what they mean.

#### Learning Target:

I can **determine** the **main** ideas and **supporting details** in the **article** “The Digital Revolution and Adolescent Brain Evolution.”

#### Learning Target:

I can **analyze** the basic **structure** of a **complex** sentence.

*determine* – decide

*main* – central or most important

*supporting details* – helping ideas

*article* – a short text in a newspaper or magazine

*analyze* – study something and explain it

*structure* – the way parts of something are joined together

*complex* – something that has many different parts

## ACQUIRING AND USING VOCABULARY

### INSTRUCTIONS FOR TEACHERS:

- Review student instructions.
- Familiarize students with their glossary. It is located in Appendix A (Glossary; labeled “Appendix: Glossary” in the student version). Tell students to use the glossary throughout the lesson.
- Pre-teach the vocabulary selected for extended instruction, provided as word cards in Appendix B (Teacher Resources). This vocabulary is abstract and critical to understanding the text.

### INSTRUCTIONS FOR STUDENTS:

Your teacher will pre-teach several key words. Use your glossary for the rest of the lesson to find meanings for words you don't know. Words that are **bolded** in the text and word banks can be found in the glossary. The glossary is located in the Appendix at the end of the lesson.

## THINKING LOG

### INSTRUCTIONS FOR TEACHERS:

- Read the guiding question and text aloud to students, modeling appropriate pace and intonation.
- During the read-aloud, define words and phrases in context that students are unlikely to know, drawing definitions from the glossary when you can. Translations, examples, gestures, and visuals also help.
- Ask students to read the text on their own and work with a partner to answer supplementary questions.
- Ask students to use their glossary to help them with word meanings.
- Call on pairs to answer the supplementary questions.
- Discuss the guiding question(s) as a group and then have students write the answer in their student chart.

### INSTRUCTIONS FOR STUDENTS:

Your teacher will ask you a guiding question that you will think about as your teacher reads the text aloud to you. As your teacher reads the text aloud, listen and follow along in your text. After the text has been read aloud, work with a partner to reread the text and answer the supplementary questions. Use your glossary to help you. Your teacher will review the answers with the class. You will then discuss the guiding question(s) with your teacher and the class. Finally, you will complete a written response to the guiding question(s).

**GUIDING QUESTION:** *Why is the social brain so important for humans? Why might video games threaten the development of social skills humans need for survival?*

### THE DIGITAL REVOLUTION AND ADOLESCENT BRAIN EVOLUTION

#### *EXCERPT 5: DIGITAL REVOLUTION – SOCIAL*

The human brain is a social brain. Our ability to gauge the **moods** and **intentions** of others, to **detect** the truth or **falsehood** of their **communications**, to **discern** friend from foe, and to form alliances is among its most **complex** and important **tasks**. These skills are of premier importance to fulfill our biological imperatives of staying alive (through the protection of the group) and **reproducing or having children**. From this perspective, it is no wonder that so much of our brain is dedicated to **social cognition**.

The central hub of circuitry related to **social skills** is the late-maturing, highly plastic prefrontal cortex. Like any **complex** skills, mastery **requires** lots of practice. Much of the discernment **relies** on exquisitely **subtle** detection of **nonverbal cues**, such as

slight changes in eye gaze, millisecond differences in speech timing, synchrony of response to shared environmental stimuli, breathing patterns, body **posture**, touch, **odors**, and so forth. Will the increasing reliance on **digital** social interactions hinder exposure to the "real-world" experiences necessary to **master** these most important skills?

**WORD BANK:**

alive	environmental	interact	<b>social skills</b>
alliances	eye gaze	lying	speech
body posture	face-to-face	<b>moods</b>	<b>survive</b>
breathe	foe	<b>odor</b>	truth
cues	friend	prefrontal cortex	
<b>detection</b>	<b>intentions</b>	reproduce	

**SUPPLEMENTARY QUESTIONS:**

1. *What is one of the most complex and important tasks of the brain?*

One of the most important tasks of the brain is using social skills.

2. *What four social tasks does the author mention?*

The author mentions the following four social tasks:

- A. our ability to notice the moods and intentions of other people (what other people are feeling or thinking);
- B. our ability to tell whether someone is telling the truth or lying
- C. our ability to tell if someone is friend or foe (enemy)
- D. our ability to form alliances (be partners) with other people

3. *Why is the social brain so important?*

The social brain is so important because social skills help us reproduce (have children) and stay alive.

4. *What is the central hub (command center) of the brain for social skills?*

The central hub for social skills is the plastic prefrontal cortex.

5. *Does the prefrontal cortex mature early or late?*

It matures late (early/late).

6. *Does having complex social skills take practice?*

Yes, it does (Yes, it does/No, it doesn't).

7. *What do complex social skills rely on?*

Social skills rely on detection of, or noticing, nonverbal cues, or signals.

8. *What are some examples of nonverbal cues?*

Examples of nonverbal cues include:

- A. slight changes in eye gaze (position of eyes)
- B. small differences in speech timing
- C. how people react to shared environmental stimuli
- D. how people breathe
- E. people's body posture (how a person holds his or her body)
- F. touch
- G. odor (smell)

9. *The author asks if so much reliance on social interaction through video games will prevent people from experiencing "real-world" experiences with people. What does the author worry about?*

The author worries about people who interact mainly through video games instead of face-to-face. These people may not develop the important and complex social skills they need to survive.

**RESPONSE TO GUIDING QUESTION(S):**

*Why is the social brain so important for humans? Why might video games threaten the development of social skills humans need for survival?*

*Suggested Response: One of the most important tasks of the brain is using social skills. Our social skills give us the ability to notice the moods and intentions of other people, to tell whether someone is telling the truth or not, to tell if someone is friend or foe, and to form alliances, or be partners, with other people. These skills help us stay alive and reproduce. Social skills are learned by interacting with other people face-to-face. People who interact with other people mainly through video games may not develop the important and complex social skills they need to survive.*

## NEUROLOGIST NOTEBOOK

### INSTRUCTIONS FOR TEACHERS:

- Review student instructions.

### INSTRUCTIONS FOR STUDENTS:

Work with a partner. Use your neurologist notebook to write down key, or important, information from the text. You will write down main ideas and some details, or specific information, about each main idea. You can use information from your Thinking Log. Some information is already filled in for you.

### WORD BANK:

**addictive**, breathing, **cognition**, **complex**, **digital**, enemy, eye, feelings, friend, important, increasing, **master**, **posture**, practice, **social skills**, **subtle**, **survive**, truth, video games

### Summary from yesterday:

The amount of time teens spend on video games is increasing. These video games may be addictive.

#### Main idea:

Social cognition is one of the brain's most important tasks.

#### Supporting details:

We use social cognition to understand other people's feelings, whether they are telling the truth, and whether they are a friend or enemy. These are important skills that help us survive.

#### Main idea:

We must practice social cognition skills to master them.

#### Supporting details:

Social cognition skills are very complex. These skills include noticing many subtle, or small, things like eye gaze, breathing patterns, and body posture. These skills require, or need, a lot of practice to master.

### Concluding question:

Can we spend too much time playing video games and using digital devices to master social skills?

## FUNCTIONAL ANALYSIS

### INSTRUCTIONS FOR TEACHERS:

- Review student instructions for functional analysis with the whole class.
- Complete the functional analysis with the whole class.
- Have students work with a partner to rewrite the sentence in their own words.

### INSTRUCTIONS FOR STUDENTS:

Work with your class to analyze an important sentence(s) from the text.

- Every sentence has someone or something that *does* something. First you determine this *who* or *what*.
- Every sentence has something that they *do* or *did*. Figure that part out next. Now you have the most important parts of the sentence in place.
- Then you will figure out what they did the action *to* or *for*.
- Finally, you will write the descriptive details.
- Write your answers in the spaces below.
- When you are done, write the sentence again in your own words.

You may want to use definitions from the glossed text in the sections above.

### *Functional Analysis:*

*Our ability to gauge the moods and intentions of others, to detect the truth or falsehood of their communications, to discern friend from foe, and to form alliances is among its most complex and important tasks.*

WHAT: *Our ability*

DETAIL (To What): *to gauge the moods and intentions of others*

DETAIL (To What): *to detect the truth or falsehood of their communications*

DETAIL (To What): *to discern friend from foe*

DETAIL (To What): *and to form alliances*

WHAT HAPPENED (Action): *is*

WHAT: *among its [the brain's] most complex and important tasks*

What the sentence says:	My own words:
Our ability	_____
to gauge the moods and intentions of others	to tell _____
to detect the truth or falsehood of their communications	to tell _____

to discern friend from foe	to tell _____
and to form alliances	and to _____
is	is
among its most complex and important tasks	the brain's _____
<b>Write the sentence in your own words and then explain it to your partner.</b>	
_____	
to	
_____	
to	
_____	
to	
_____	
and to	
_____	
is _____	
_____ .	



## EXIT TICKET

### INSTRUCTIONS FOR TEACHERS:

- Review student instructions with the whole class.

### INSTRUCTIONS FOR STUDENTS:

This graphic organizer will help you keep track of information about the brain for all of the readings. Each day you will write down new information from each reading. Today we will write about social cognition skills.

- First, write what we need social cognition skills for.
- Next, the types of social cognition skills.
- Then write what we need to do to develop social cognition skills.
- Finally, write why it might dangerous for teens to spend too much time using digital devices (*so what?*).

### WORD BANK:

breathing, body posture, eye gaze, feelings, friend, practice, small, truth

<b>What we need social cognition for</b>	We need social cognition to understand other people's <u>feelings</u> , whether they are telling the <u>truth</u> , and whether they are our <u>friend</u> .
<b>Types of social cognition skills</b>	Social cognition skills including noticing <u>small</u> things, like <u>eye gaze</u> , <u>breathing</u> , and <u>body posture</u> .
<b>What we need to do</b>	We must <u>practice</u> .
<b>So what?</b>	[Write why it might be dangerous for teens to spend too much time using digital devices:]

## Appendix A: Glossary

Word	Definition	Example
addictive	something that causes addiction (you cannot stop using it)	For some people drinking alcohol is addictive.
cognition	how the brain processes, or understands information	From this perspective, it is no wonder that so much of our brain is dedicated to social <b>cognition</b> .
<i>communication</i>	how we share messages, information, or ideas (like talking)	Our ability to detect truth or lies in <b>communication</b> is a complex and important task.
complex	not simple	Our ability to gauge the moods and intentions of others, to detect the truth or falsehood of their communications, to discern friend from foe, and to form alliances is among its most <b>complex</b> and important tasks.
<i>detect</i> ( <i>detection</i> )	discover or notice	Our ability to <b>detect</b> truth or lies in communication is a complex and important task.
digital	electronic	Will the increasing reliance on <b>digital</b> social interactions hinder exposure to the "real-world" experiences necessary to master these most important skills?
discern	tell apart	Our ability to <b>discern</b> friend from foe is a complex and important task.
falsehood	Lie	Our ability to detect the truth or <b>falsehood</b> of what people say is a complex and important task.
hinder	stop something, or get in the way of it happening	Will the increasing reliance on digital social interactions <b>hinder</b> exposure to the "real-world" experiences necessary to master these most important skills?

Word	Definition	Example
intention	motive; what you are thinking or planning regardless of your actions	Our ability to gauge the moods and <b>intentions</b> of others is a complex and important task.
master	learn something very well or perfectly	Will the increasing reliance on digital social interactions hinder exposure to the "real-world" experiences necessary to <b>master</b> these most important skills?
mood	a temporary feeling or emotion	Our ability to gauge the <b>moods</b> and intentions of others is a complex and important task.
nonverbal cue	a gesture or action that gives information	Much of the discernment relies on detection of <b>nonverbal cues</b> , such as slight changes in eye gaze, breathing patterns, body posture, and so forth.
odor	a smell	Much of the discernment relies on detection of nonverbal cues, such as body posture, touch, <b>odors</b> , and so forth.
posture	the way you hold or carry your body	Much of the discernment relies on detection of nonverbal cues, such as slight changes in eye gaze, breathing patterns, body <b>posture</b> , and so forth.
<i>require</i>	Need	Developing social skills <b>requires</b> lots of practice.
<i>rely</i> ( <i>reliance</i> )	depend on something	The increasing <b>reliance</b> on digital social interactions could hinder exposure to the "real-world" experiences.
social cognition*	how the brain processes, or understands, information about other people and social situations, or situations where people are with each other	From this perspective, it is no wonder that so much of our brain is dedicated to <b>social cognition</b> .
social skill	how well you interact with other people	Developing <b>social skills</b> requires lots of practice.

Word	Definition	Example
subtle	not obvious; difficult to see or notice	Much of the discernment relies on exquisitely <b>subtle</b> detection of nonverbal cues, such as slight changes in eye gaze, millisecond differences in speech timing, synchrony of response to shared environmental stimuli, breathing patterns, body posture, touch, odors, and so forth.
survive	continue to live	These people may not develop the important and complex social skills they need to survive.
<i>task</i>	a job; something you need to get done	Our ability to detect truth or lies in communication is a complex and important <b>task</b> .

*\*Vocabulary from the Expeditionary Learning lessons.  
Italicized words are from the Academic Word List.*

## Appendix B: Teacher Resources

### social cognition



- Look at the picture. Turn to a partner and say what you think is happening in the picture.
- We are able to determine, or tell, what is happening with other people because of social cognition.
- Social cognition is how the brain processes, or understands, information about other people and social situations, or situations where people are with each other.
- Partner talk: Think about an interaction, or dealing with another person today. What happened and how did you use social cognition?