

# Decisions, Decisions



**In this unit, you will**

- read about two different approaches to decision-making.
- review summarizing and reporting.
- increase your understanding of the target academic words for this unit.

**READING SKILLS** Evaluating Generalizations; Understanding Analogies

## Self-Assessment

Think about how well you know each target word, and check (✓) the appropriate column. I have...

## TARGET WORDS

## AWL

- adapt
- conform
- consent
- deduce
- enforce
- exclude
- hypothesis
- implicate
- imply
- mode
- nonetheless
- ' option
- ' respond
- statistic
- thesis

never seen  
the word  
before

seen the word  
but am not sure  
what it means

seen the word  
and understand  
what it means

used the word,  
but am not sure  
if correctly

used the word  
confidently in  
either speaking  
or writing

used the word  
confidently in  
*both* speaking  
*and* writing



**Outside the Reading** What do you know about sociology? Watch the video on the student website to find out more.



Oxford 3000™ keywords

## Before You Read

Read these questions. Discuss your answers in small groups.

- When you are treated for an illness or injury, do you feel more comfortable if the medical doctor quickly determines what you are suffering from or if the doctor takes a long time?
- Some decisions are made quickly. Some are more deliberate. Examine the items below and decide whether a quick decision or long deliberation is better.
  - making a move in a game like chess
  - choosing a movie to see
  - deciding whether to trust a stranger
  - deciding what clothing to buy
  - choosing a college or university
  - electing a leader of a club or organization
  - deciding to accept a job
  - deciding whether someone is guilty of a crime

### MORE WORDS YOU'LL NEED

**diagnosis:** the act of identifying the cause of an illness or other problem

**hunch:** a feeling or guess that something is true not based on known facts

**spontaneous:** describing something done suddenly without much thought or planning

**the unconscious:** a part of the mind that we are not directly aware of

## Read

In this excerpt from Malcolm Gladwell's book *Blink: The Power of Thinking Without Thinking*, the author discusses research into the validity of hunches.

# Blink

In front of you are four decks of cards—two of them red and the other two blue. Each card in those four decks either adds points to your score or subtracts them, and your job is to turn over cards from any of the decks, one at a time, in such a way that maximizes your score. What you don't know at the beginning, however, is that the red decks are a minefield.<sup>1</sup> The rewards are high, but when you lose on the red cards, you lose a lot of points. Actually, you can win by only taking cards from the blue decks, which offer a nice steady diet of 50-point rewards and modest penalties. The question is, how long will it take you to figure this out?

Scientists at the University of Iowa did this experiment a few years ago. They found that

after we've turned over about fifty cards, most of us start to develop a hunch about what's going on. After about eighty cards, most of us have figured out the game and can explain exactly why the two red decks are such a bad idea. That much is straightforward. We have some experiences. We think them through. We develop a **hypothesis**. We **deduce** A from B. That's the way learning works.

But the Iowa scientists did something else. They hooked each player up to a machine that measured the activity of the sweat glands below the skin in the palms of their hands. Like most of our sweat glands, those in our palms **respond** to stress as well as temperature. The Iowa scientists found that the players started generating stress **responses** to the red decks by

<sup>1</sup> *minefield*: a situation that contains hidden dangers or difficulties.

35 the tenth card, forty cards before they were able  
to say that they had a hunch about what was  
wrong with those two decks. More importantly,  
right around the time their palms started  
sweating, their behavior began to change as well.  
40 They started favoring the blue cards and taking  
fewer and fewer cards from the red decks.

The Iowa experiment **implies** that our brain  
uses two very different strategies to make sense  
of the situation. The first is the one we're most  
45 familiar with. It's the conscious strategy. We  
think about what we've learned, and eventually  
we come up with an answer. But it takes us  
eighty cards to get there. It's slow, and it needs a  
lot of information. There's a second strategy,  
50 though. It operates a lot more quickly. It starts  
to work after ten cards, and it's really smart,  
because it picks up the problem with the red  
decks almost immediately. It has the drawback<sup>2</sup>,  
however, that it operates—at least at first—  
55 entirely below the surface of consciousness. It  
sends its messages through weirdly indirect  
channels, such as the sweat glands in the palms  
of our hands. It's a system in which our brain  
reaches conclusions without immediately telling  
60 us that it's reaching conclusions.

The part of our brain that leaps to  
conclusions like this is called the **adaptive**  
unconscious, and the study of this kind of  
decision-making is one of the most important  
65 new fields in psychology. The **adaptive**  
unconscious can be thought of as a kind of giant  
computer that quickly and quietly processes a lot  
of the data we need in order to keep functioning  
as human beings. When you walk out into the  
70 street and suddenly realize that a truck is bearing  
down on you, do you have time to think through  
all your **options**? Of course not. The only way  
that human beings could ever have survived as a  
species for as long as we have is that we've  
75 developed another kind of decision-making  
apparatus that's capable of making very quick  
judgments based on very little information.

The psychologist Timothy D. Wilson in his  
book *Strangers to Ourselves* says that we toggle  
80 back and forth between our conscious and  
unconscious **modes** of thinking, depending on  
the situation. A decision to invite a coworker

over for dinner is conscious. You think it over.  
You decide it will be fun. You ask him or her.  
85 The spontaneous decision to argue with that  
same coworker is made unconsciously—by a  
different part of the brain and motivated by a  
different part of your personality.

Whenever we meet someone for the first  
90 time, whenever we interview someone for a job,  
whenever we react to a new idea, whenever  
we're faced with making a decision quickly, we  
use that second part of our brain. How long, for  
example, did it take you, when you were in  
95 college, to decide how good a teacher your  
professor was? A class? Two classes? A semester?  
The psychologist Nalini Ambady gave students  
three ten-second videotapes of a teacher—with  
the sound turned off—and found they had no  
100 difficulty at all coming up with a rating of the  
teacher's effectiveness. When Ambady cut the  
clips<sup>3</sup> back to five seconds, and even two  
seconds, the ratings were essentially the same.  
A person watching a silent two-second video clip  
105 of a teacher he or she has never met will reach  
conclusions similar to those of a student who has  
sat in the teacher's class for an entire semester.  
That's the power of our **adaptive** unconscious.

I think we are innately suspicious of this  
110 kind of rapid cognition. We assume that the  
quality of a decision is directly related to the  
time and effort that went into making it. When  
doctors face a difficult diagnosis, they order  
more tests, and when we are uncertain about  
115 what we hear, we ask for a second opinion. And  
what do we tell our children? Haste makes  
waste. Look before you leap. Stop and think.  
Don't judge a book by its cover. We believe that  
we are always better off gathering as much  
120 information as possible and spending as much  
time as possible in deliberation. We really only  
trust conscious decision-making. But there are  
moments, particularly in times of stress, when  
haste does not make waste, when our snap  
125 judgments and first impressions can offer a  
much better means of making sense of the  
world. Decisions made very quickly can be  
every bit as good as decisions made cautiously  
and deliberately. ■

<sup>2</sup> drawback: disadvantage

<sup>3</sup> clip: short scene, usually on film

## Reading Comprehension

**A.** Mark each sentence as *T* (true) or *F* (false) according to the information in Reading 1. Use the dictionary to help you understand new words.

- 1. In the experiment with the red and blue decks of cards, most people had some idea of what was happening after fifty cards.
- 2. People became suspicious of the red deck of cards even before they could explain why.
- 3. According to the reading, the unconscious brain works more slowly than the conscious brain.
- 4. Most people make all of their decisions in either one mode or the other, not both.
- 5. The decision to jump out of the way of a moving truck is probably an unconscious one.
- 6. The sayings in the last paragraph of the article all urge people to think carefully before making a decision.
- 7. The reading suggests that we underestimate the value of snap judgments.
- 8. Our brains do not work well when information is limited.

**B.** Scan the reading to find the sentences paraphrased below. In the blank, write the original sentence.

1. The majority of subjects began to suspect something after they'd played about fifty cards.

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2. So far there were no surprises.

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3. We reflect on what we know and in time we reach a conclusion.

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4. But it has a disadvantage in that it initially takes place beyond the reaches of conscious thought.

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5. It is like a huge microprocessor that silently and efficiently collects and analyzes a lot of necessary information.

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## LEARN

**Deduce, infer, conclude:** these three verbs describe something our mind does constantly. We observe facts and figure out other things that must also be true. Some inferences we make are obviously true. No other conclusion is possible.

*All adult birds have feathers. A gadwall is a kind of bird. So gadwalls no doubt have feathers.*

Sometimes, though, our inference is based on evidence that is less *conclusive*.

*Almost all species of bird can fly. Since a gadwall is a bird, it can probably fly.*

We add “probably” because of the slight statistical chance that a gadwall (a duck-like bird) is a flightless bird.

Likewise, a generalization may describe something that is true in all cases or it may indicate a statistical tendency.

## APPLY

Malcolm Gladwell uses these generalizations to support his conclusion that we should place more trust in first impressions. Write **T** for those statements that describe something that is true for all people and **S** for those that illustrate a statistical tendency. Write **N** if you're not sure.

- 1. After we've turned over about fifty cards, most of us start to develop a hunch about what's going on. After about eighty cards, most of us have figured out the game.
- 2. The adaptive unconscious . . . quietly processes a lot of the data we need in order to keep functioning as human beings.
- 3. ...we toggle back and forth between our conscious and unconscious modes of thinking, depending on the situation.
- 4. A person watching a silent two-second video clip of a teacher he or she has never met will reach conclusions similar to those of a student who has sat in the teacher's class for an entire semester.
- 5. We really only trust conscious decision-making.

## REVIEW A SKILL Summarizing and Reporting (See p. 91)

Malcolm Gladwell reports on and summarizes the work of other writers and researchers. Reread the article and decide whether Gladwell is neutral toward these writers or whether he agrees with them.

## Vocabulary Activities

| Noun                       | Verb        | Adjective            | Adverb         |
|----------------------------|-------------|----------------------|----------------|
| adaptation<br>adaptability | adapt       | adaptable<br>adapted | _____          |
| deduction                  | deduce      | deducible            | _____          |
| hypothesis                 | hypothesize | hypothetical         | hypothetically |
| implication                | imply       | implied              | _____          |
| mode                       | _____       | _____                | _____          |
| option                     | opt         | optional             | optionally     |
| response                   | respond     | responsive           | responsively   |

- A.** Read the paragraph about "thin-slicing." Fill in the blanks with a target word from the chart above that completes the sentence in a grammatical and meaningful way.

"Thin-slicing" is the ability of our unconscious mind to (1) \_\_\_\_\_ characteristics of a person's behavior and personality from a very brief encounter. It is called thin-slicing because just a "slice" of experience may be all that is necessary for us to form an accurate impression of someone and (2) \_\_\_\_\_ quickly to a new situation. Thin-slicing is vital for operating successfully in a fast-changing environment. Because it is unconscious and automatic, we can size up a person quickly, instantly narrow our (3) \_\_\_\_\_ for dealing with this person, and decide on an appropriate (4) \_\_\_\_\_.

Movies and television programs make good use of our ability to thin-slice. When new characters appear, our brain is in "thin-slice" (5) \_\_\_\_\_. A brief glimpse or several lines of dialog can (6) \_\_\_\_\_ much about a character's personality, background, and importance. We are suspicious of these first impressions, of course, because moviemakers sometimes try to trick us. But that is part of the fun.

A *hypothesis* is an unproven statement that makes a claim, usually about causes or effects. To test a hypothesis, first we ask what this hypothesis *implies*.

If this **hypothesis** is true, what other things have to be true?

If these other things have to be true for the hypothesis to be true, we say that they are *deducible*. For example, if someone claims a medicine cures baldness, we can *deduce* the following:

If bald-headed people take this medicine, their hair will grow back.

This prediction about hair growth is deducible. It has to be true if the medicine actually works. The next step is to test whether the prediction proves true. If the prediction proves false (hair does not grow back), then we know the hypothesis is also false. We can exclude this hypothesis from further consideration.



**B.** Using your powers of deductive reasoning, complete the sentence with a prediction that would have to be true if the hypothesis is true.

1. Hypothesis: Listening to music before beginning a mental task improves concentration.

If this is true, we can predict that students who listen to music before taking a math test will have higher average scores than those who do not.

2. Hypothesis: Eating oranges prevents colds.

From this statement, we can deduce that \_\_\_\_\_

3. Hypothesis: Drinking a small amount of coffee temporarily improves memory.

From this statement, we can deduce that \_\_\_\_\_

4. Hypothesis: Losing just one hour of sleep makes people less alert.

If this hypothesis is true, then \_\_\_\_\_

**C.** Your prediction may be deducible, but can it be tested? Design an experiment or test for one of your predictions in activity B. Explain your test to the class.

**D.** In colleges and universities, students have required courses and electives, or optional courses. Examine this list of college courses. Write *R* for the courses you feel should be required for all students and *O* for those that should be optional.

- |                        |                        |                     |
|------------------------|------------------------|---------------------|
| ___ astronomy          | ___ literature         | ___ psychology      |
| ___ biology            | ___ music appreciation | ___ sociology       |
| ___ business           | ___ philosophy         | ___ women's studies |
| ___ a foreign language | ___ political science  | ___ world history   |

In a small group, discuss your ideas and come to a consensus on required and optional courses. Share your group's decision with the class.

### Before You Read

Here is a list of decisions similar to the ones you examined before you read *Blink*. This time, ask yourself if you would be more likely to trust a decision made by a single expert or a consensus reached by a larger group of people. Discuss your ideas in a small group.

- making a move in a game like chess
- choosing a movie to see
- choosing a restaurant to dine at
- deciding what clothing to buy
- choosing a college or university
- electing the leader of a club or organization
- choosing a leader to solve a temporary problem
- predicting what team will win a championship
- deciding whether someone is guilty of a crime

### MORE WORDS YOU'LL NEED

**impromptu:** done without rehearsal or planning

**understatement:** something stated in a restrained way when the facts would allow for a stronger statement; the opposite of exaggeration

**wager:** money that is bet or gambled on the outcome of a contest, or future event



### Read

This excerpt from *The Wisdom of Crowds*, by James Surowiecki, discusses the benefits of collective thinking.

## The Wisdom of Crowds

One day in 1906, the British scientist Francis Galton headed for a country fair in the town of Plymouth where the local farmers and townspeople gathered to appraise the quality of each other's cattle, sheep, chickens, and horses. Examining workhorses may seem a strange way for a scientist to spend an afternoon, but there was a certain logic to it. Galton was a man obsessed with two things: the measurement of physical and mental qualities, and breeding. And livestock shows are all about good and bad breeding.

Breeding mattered to Galton because he believed that only a very few people had the characteristics necessary to keep societies healthy. He had devoted much of his career to measuring those characteristics and developing

statistical procedures and formulas for doing so. His experiments left him with little faith in the intelligence of the average person, "the stupidity and wrong-headedness of many men and women being so great as to be scarcely credible." Only if power and control stayed in the hands of the select, well-bred few, Galton believed, could a society remain healthy and strong.

As he walked through the exhibition that day Galton came across a weight-judging competition. A fat ox had been placed on display, and members of a gathering crowd were lining up to guess what the weight of the ox would be after it had been "slaughtered and dressed." Each guess was written on a numbered ticket. The best guesses would receive prizes.

Eight hundred people made guesses. "Many

35 non-experts competed," Galton wrote later in the scientific journal *Nature*. He described how clerks and others with no expert knowledge of horses try to judge which horses will win a race, "guided by newspapers, friends, and their own  
40 fancies<sup>1</sup>." The analogy to a democracy, in which people of radically different abilities and interests each get one vote, had suggested itself to Galton immediately. "The average competitor was probably as well fitted for making a just  
45 estimate of the dressed weight of the ox, as an average voter is of judging the merits of most political issues on which he votes," he wrote.

To test this **hypothesis**, Galton turned the competition into an impromptu experiment.  
50 When the contest was over, the organizers **consented** to give Galton all the tickets, and he ran a series of **statistical** tests on them. After **excluding** 13 tickets with illegible answers, Galton then added all the contestants' estimates  
55 and calculated the mean<sup>2</sup> of the group's guesses. That number represented, you could say, the collective wisdom of the Plymouth crowd. If the crowd were a single person, that was how much it would have guessed the ox weighed.

60 Galton undoubtedly thought that the average guess of the group would be way off the mark. But Galton was wrong. The crowd guessed that the ox would weigh 1,197 pounds. After it had been slaughtered and dressed, it weighed 1,198  
65 pounds. In other words, the crowd's judgment was essentially perfect. Perhaps breeding did not mean so much after all. Galton wrote later: "The result seems more creditable to the trustworthiness of a democratic judgment than  
70 have been expected." That was, to say the least, an understatement.

Francis Galton stumbled on a simple, but powerful, truth: under the right circumstances, groups are remarkably intelligent, and are often  
75 smarter than the smartest people in them. Even if most of the people within a group are not especially well-informed or rational, it can still reach a collectively wise decision. This is a good thing, since human beings are not perfectly  
80 designed decision makers. We generally have less information than we'd like. We have limited

foresight into the future. Most of us lack the ability—and the desire—to make sophisticated cost-benefit calculations<sup>3</sup>. Instead of insisting on  
85 finding the best possible decision, we will often accept one that seems good enough. And we often let emotion affect our judgment. Yet despite all these limitations, our collective intelligence, or what I'll call "the wisdom of  
90 crowds," is often excellent.

Charles Mackay would have scoffed at the idea that a crowd of people could know anything at all. Mackay was the Scottish journalist who, in 1841, published *Extraordinary  
95 Popular Delusions and the Madness of Crowds*, an endlessly entertaining chronicle of mass manias and collective follies. Mackay's **thesis** was that crowds were never wise. They were never even reasonable. Collective judgments  
100 were doomed to be extreme. "Men, it has been well said, think in herds," he wrote. "It will be seen that they go mad in herds, while they only recover their senses slowly and one by one." **Nonetheless**, the wisdom of crowds has a far  
105 more important and beneficial impact on our everyday lives than we or Charles Mackay recognize, and its **implications** for the future are immense.

One of the striking things about the wisdom  
110 of crowds is that even though its effects are all around us, it's easy to miss, and, even when it's seen, it can be hard to accept. Most of us, whether as voters or investors or consumers or managers, believe that valuable knowledge is  
115 concentrated in a very few hands. We assume that the key to solving problems or making good decisions is finding that one right person who will have the answer. Even when we see a large crowd of people, many of them not especially  
120 well-informed, do something amazing like, say, predict the outcomes of horse races, we are more likely to attribute that success to a few smart people in the crowd than to the crowd itself. As sociologists Jack R. Soil and Richard  
125 Larrick put it, we feel the need to "chase the expert." Chasing the expert is a mistake, and a costly one at that. We should stop hunting and ask the crowd instead. Chances are, it knows.

<sup>1</sup> fancy: desire, whim

<sup>2</sup> mean: **statistical** average

<sup>3</sup> cost-benefit calculation: an analysis that compares the total cost of something with the total benefit derived from it

Mackay was right about the extremes of collective behavior: there are times—think of a riot, or a stock market bubble—when collective decisions are utterly irrational. And in the present, many groups struggle to make even mediocre decisions, while others wreak havoc with their bad judgment. The fact is, groups work well under certain circumstances, and less well under others. Groups generally need to **enforce** rules to maintain order and coherence, and when they're missing or malfunctioning, the result is trouble. Groups benefit from members talking to and learning from each other, but too much communication, paradoxically<sup>4</sup>, can actually make the group as a whole less intelligent. While big groups are often good for solving certain kinds of problems, big groups can also be unmanageable and inefficient.

Conversely, small groups are easy to run, but they risk having too little diversity of thought and too much consensus.

Diversity and independence are important because the best collective decisions are the product of disagreement and contest, not consensus or compromise. An intelligent group does not ask its members to **conform** to its positions in order to let the group reach a decision everyone can be happy with. Instead, it figures out how to use mechanisms—like market prices, or intelligent voting systems—to produce collective judgments that represent not what any one person in the group thinks but rather, in some sense, what they all think. Paradoxically, the best way for a group to be smart is for each person in it to think and act as independently as possible. ■

<sup>4</sup> *paradoxically*: in a contradictory manner; often used to describe two pieces of evidence that seem to contradict each other

## Reading Comprehension

Mark each sentence as *T* (true) or *F* (false) according to the information in Reading 2. Use the dictionary to help you understand new words.

- 1. The reading suggests that Francis Galton contributed to the field of statistical measurement.
- 2. Galton's original hypothesis about the intelligence of people was confirmed.
- 3. James Surowiecki has reached a different conclusion about crowds from that of Charles Mackay.
- 4. The best decisions are always made by people who are expert in a field.
- 5. Surowiecki says groups are vulnerable to bad decision-making when there are rules that maintain order and focus.
- 6. Surowiecki warns that group conformity can lead to poor judgments.
- 7. This article tends to support the validity of democratic forms of government.

LEARN

An *analogy* is a kind of comparison. It compares something we know little about to something that we know more about.

Writers use analogies for one of two reasons. They use analogies when something is difficult to grasp. In Unit 6, Reading 1 explains the effect of “negative” and “positive” feedback on the economy by comparing it to the more familiar subject of the eye:

In economic situations, negative feedback works a bit like your eyes do. As the light gets brighter, your pupils get smaller and let in less light. But what if your eyes worked as a “positive feedback” mechanism? In sunlight, your pupils would open wide and damage the retina.

Writers also use analogies to make discoveries or to argue a point. The logic works like this:

- We don't know much about **A**.
- But we do know that **A** has similarities to **B**.
- Therefore, whatever is true of **B** may also be true of **A**.

James Surowiecki reports that Francis Galton used this kind of thinking in designing his weight-guessing experiment. Galton reasoned that if ordinary people could not guess something as simple as the weight of an ox, then they would, by analogy, make poor judgments on complex matters. But Galton's experiment showed the opposite. The group's average guess was amazingly accurate, so perhaps crowds make wise choices on complex matters as well.

APPLY

Several readings in this book use analogies. Reread these selections and mark them with an / if the analogy is used to illustrate a difficult concept, or A if the analogy is used to argue a point.

- 1. “Were Humans Born to Run?” (Unit 1) compares the physical abilities of humans and animals.

To understand how they can make this claim, let's consider what humans can do. The very best long distance runners can run five-minute miles for several hours. These efforts are amazing achievements, but even the casual jogger can often keep up an eight to ten minute a mile pace for several miles. Only a few animals of similar weight—large dogs, hyenas, wolves, and wildebeests—are capable of maintaining such speeds and actually prefer to trot a bit slower. Even a thousand-pound horse will not cover long distances any faster than a good recreational jogger.

- 2. “Virtual Odors?” (Unit 5) compares odors to words.

In other words, smells function a bit like words do. We know thousands of different words, and the meaning of a word depends on the context in which it occurs. We define a word by pointing to the entity it refers to or by comparing its meaning to other words. With scents, we may say “it smells like a cucumber” or “it has a soapy smell.”

- 3. “Pitch and Timbre” (Unit 5) compares musical instruments to a mouth.

You can see the effect that an instrument’s shape has on tone by considering what your mouth does when you make vowel sounds. If you sing the words “tea” and “too” and use the same musical note, the fundamental frequency is the same for both words. But “tea” sounds different because you changed the shape of your mouth in such a way as to dampen the overtones between about 500 Hz and 2,000 Hz. To make the vowel in the word “too,” your mouth amplifies the overtones between 500 and 1,000 Hz and dampens the higher ones.

- 4. “Tulipomania” (Unit 6) compares tulipomania to the dot-com bubble.

Dash’s book also makes it evident that, like the relatively mild recession following the burst of the dot-com bubble, tulipomania’s economic impact was minor since only a fraction of the economy was devoted to tulip trading, with the Amsterdam exchange and others wanting no part of it.

## Vocabulary Activities

| Noun                                    | Verb        | Adjective                | Adverb/Conjunction |
|-----------------------------------------|-------------|--------------------------|--------------------|
| conformity<br>conformist                | conform     | _____                    | _____              |
| consent<br>consensus                    | consent     | consenting<br>consensual | consensually       |
| enforcement                             | enforce     | enforced                 | _____              |
| exclusion                               | exclude     | excluded                 | _____              |
| exclusive                               | exclusively | _____                    | _____              |
| implication                             | implicate   | implicated               | _____              |
| _____                                   | _____       | _____                    | nonetheless        |
| statistic<br>statistics<br>statistician | _____       | statistical              | statistically      |
| thesis                                  | _____       | _____                    | _____              |

- A.** Read this brief article on prediction markets. Fill in the blanks with a target word from the table. Be sure to use the correct form.

In *The Wisdom of Crowds*, James Surowiecki discusses a method for polling and predicting the future called “prediction markets.” A traditional poll may ask the participants, “Who will you vote for?” A prediction market turns the polling into a game and asks “Who do you think will win the election?” with computers keeping track of what the participants think.

1. According to James Surowiecki, prediction markets clearly illustrate his \_\_\_\_\_ that crowds can make better predictions than a "think tank" of experts can.
2. In prediction markets, no individual opinions are \_\_\_\_\_ , Everyone can give an opinion.
3. Also, since the group's decision is arrived at \_\_\_\_\_ , no one is forced to change their opinion.
4. Since the group does not need to reach a \_\_\_\_\_ , there is no pressure to \_\_\_\_\_ to the thinking of a few dominant members of the group.
5. Surowiecki feels that prediction markets have important \_\_\_\_\_ for the way groups structure their decision-making.
6. Critics complain that there are ways to manipulate predictions markets. \_\_\_\_\_ , economists find these markets highly interesting.
7. The Iowa Electronic Markets, sponsored by the University of Iowa, has predicted the results of presidential elections with more \_\_\_\_\_ accuracy than traditional polling methods 75% of the time.

The verb *implicate* can mean "involve someone in something criminal or scandalous" or "blame something as a cause." The noun form, *implication*, refers to the possible effect of a decision.

He was **implicated** in several financial scandals.

Their research **implicates** an airborne virus as the cause of the flu.

We need to consider the **implications** of our decision.

Earlier in this unit, we studied the verb *imply*. It means to state something indirectly. It has the same noun form, *implication*.

The candidate **implied** that her opponent was not telling the truth.

The article's **implication** is that the mayor was slow to respond to the crisis.



**B. Rewrite these sentences using a form of *implicate* or *imply*. Compare work with a partner.**

1. The mayor was involved in a scheme that misused public funds.
2. What might result from the city's plan to expand the airport?
3. He objected to a suggestion in the article that he caused the city's financial crisis.
4. Corrupt building inspectors were partially to blame for the building's collapse.
5. The report insinuates that the city council is not working hard enough.

**C.** A *thesis* is the technical term for the main idea that an essay or article is trying to explain or support. A *thesis statement* is a sentence that expresses the essay's main idea. What is the thesis of the two readings in this unit? Complete these sentences in your notebook. Discuss your ideas with the class.

1. In *Blink*, Malcolm Gladwell claims that...
2. In *The Wisdom of Crowds*, James Surowiecki argues that...

| Collocations Chart                                                   |                                                                                                              |                                                                              |                                                                          |
|----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| Verb/Adverb                                                          | Adjective                                                                                                    | Noun                                                                         | Verb/<br>Prepositional Phrase                                            |
| <i>adapt to</i>                                                      | _____                                                                                                        | new rules,<br>situations, change,<br>changing times,<br>changing needs, etc. | _____                                                                    |
| <i>conform to</i>                                                    | _____                                                                                                        | rules, expectations,<br>pressure, standards,<br>regulations, wishes          | _____                                                                    |
| give, grant, have,<br>obtain, refuse,<br>require                     | _____                                                                                                        | <i>consent</i>                                                               | _____                                                                    |
| <i>enforce</i>                                                       | _____                                                                                                        | rules, standards,<br>regulations                                             | _____                                                                    |
| _____                                                                | traditional, usual,<br>dominant, main                                                                        | <i>mode</i>                                                                  | of travel, transport,<br>transportation,<br>communication,<br>governance |
| have, examine,<br>study, look at                                     | available, best, no,<br>the only, limited                                                                    | <i>option</i>                                                                | _____                                                                    |
| give, make, receive,<br>provoke, elicit                              | positive, negative,<br>favorable,<br>enthusiastic,<br>correct, appropriate                                   | <i>response</i>                                                              | to sth                                                                   |
| collect, gather,<br>supply, furnish,<br>provide, analyze,<br>examine | vital, reliable,<br>accurate, surprising,<br>precise, up-to-date,<br>recent, updated,<br>revealing, shocking | <i>statistics</i>                                                            | on sth                                                                   |
| <i>thesis</i>                                                        | _____                                                                                                        | _____                                                                        | _____                                                                    |

The chart on page 110 shows some common collocations, or word partners, for selected target vocabulary. Refer to the chart and complete these sentences. Compare work with a partner.

1. The dominant \_\_\_\_\_ of transportation within the campus was bicycles.
2. The article furnished some rather surprising \_\_\_\_\_ on the educational achievement of children in the program.
3. A child's participation in the program requires the \_\_\_\_\_ of the parents.
4. The new regulations received a very negative \_\_\_\_\_ from the state's businesses.
5. The business failed when it was unable to \_\_\_\_\_ to changing markets.
6. They examined the available \_\_\_\_\_ and decided to sell the company to one of their competitors.
7. Businesses had no choice but to \_\_\_\_\_ to the new regulations or stop doing business in the state.
8. As of yet, the state has no mechanism for \_\_\_\_\_ these regulations.

Individually or in a small group, write grammatical and meaningful sentences that include these sequences of words.

1. usual/mode/travel

*The usual mode of travel was by car or bus.*

2. adapt to/the changing situation

3. collect/statistics/on how many students

4. elicit/a favorable response when

5. obtain/the consent of/before

6. only option/conform to/standards