

FL ELFAS
Passage Cover Sheet

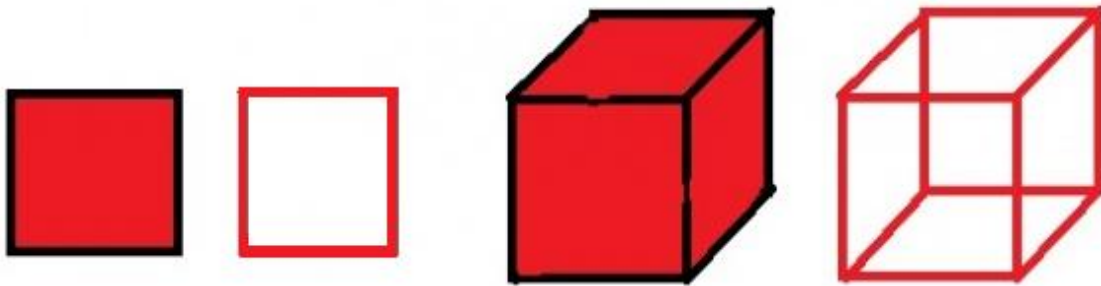
Title:	The Process of Communication
Stimulus ID:	68117CN
Source:	Commissioned
Grade Band:	6-8
Genre:	Informational Text
Text Type:	Science Scenario: Explanation of a Phenomena
Word Count:	1130
Lexile:	940
Lexile Range:	925-1185
Flesch-Kincaid:	8.5
Qualitative Ranking:	Moderate

The Process of Communication

Why do scientists ask so many questions? There are several reasons, but one of them actually involves the process of communication. A scientist may ask questions to verify that she heard what she thought she heard. There is a problem with communication. The problem is that it is very difficult to ever know if the message being sent is understood correctly.

Defining Communication

If someone says, "Draw a red box," there are many possible results.



Which red box was requested? The only way to be sure is to ask questions. When we exchange information, we use a process called communication. Everyone knows what communication is. It is so commonplace that we just do it; we rarely think about it. But we should think about it so that we can understand how best to use this process.

There are four parts to any communication: the message, the encoding, the transmission, and the decoding. Ideally, the message remains the same throughout the process. This is rarely the case though.

The Message

A message is not just what is said. Many factors affect a message that is sent. Everything from a person's culture, memories, background, emotions, and even health can influence a message. Someone without that same culture or background might not understand part of the

message. It can be very difficult to express all of the culture, background, and memories into a few short sentences.

These factors are critical to the communication process. For example, referring to the red boxes, a young child might mean one of the first two red boxes, while a professional artist or engineer would likely mean one of the latter two red boxes. The message should be as complete as possible, given time and space constraints.

Encoding the Message

Second, the person sending the message must encode it. The message must be changed into a form that is likely to be understood by the receiver. The object is to get the message to the receiver with as much fidelity as possible. As humans, we communicate with words, but that often isn't enough. There are hundreds of languages, each with its own unique words and rules for encoding messages.

The sender of the message must understand something about the receiver of the message in order to get that message to the receiver. For example, if the sender decides to encode the message in French, then the sender should know whether the receiver speaks and understands the French language. A common language is a very good start to the encoding process. However, the sender must be very careful. Even regional variations to a common language can make understanding difficult.

For example, the word "turkey" is a common English word. If the receiver just hears the word without any other context, then it could have any of a number of meanings. It could mean a type of bird or the meat of that bird. Turkey can be used as a negative adjective to describe a person. It is also the name of a country as well as a type of score in bowling.

Even very common words, in a common language, can create miscommunication. The sender must create a context so that no words could be misunderstood or the sender must explicitly state how the word is being used.

If the receiver doesn't understand the message, then the sender has failed in his or her part of the communication process. The sender may have constructed the message inappropriately or may have failed to realize something about the receiver that would create a

miscommunication. Another possibility is that the message was garbled during transmission.

Transmitting the Message

Third is the transmission of the message itself from the sender to the receiver. This can be done in many forms ranging from the spoken or written language to sending bits of data via a laser down fiber-optic lines. A message can even be encoded and transmitted in multiple ways before getting to the receiver.

At any point during the transmission, a piece of the message may become lost or garbled. A well-designed message may be able to be understood even if a small piece is missing. If the message is poorly crafted, then it may be impossible to recover the message if a piece is lost during transmission.

Decoding the Message

Finally, the message must be decoded by the receiver. The receiver of the message will decode it based on his or her history, knowledge, and abilities within the communication process. The decoding can be hampered by the receiver not having the same background as the sender. This is especially true when dealing with someone from another culture or country, even if they share a common language.

The job of the sender is to make sure that the message is decoded as accurately as possible. However, the sender may also choose to make the message as short as possible. This will reduce the time and effort needed to transmit the message, but it increases the risk of miscommunication. Likewise, the sender can choose to make the message as easy to decode as possible. This will reduce the effort for the receiver, at the cost of time and effort in transmitting and encoding the message.

How to Improve Communication

Many professions have developed a special form of communication. They may have words that mean very specific things while being used in that job. Only people within the profession have the common understanding of these special words. Sometimes they have a professional requirement of repeating the message that they just heard. This allows the sender to make sure that the message sent was the same one received.

Some people who have known each other for a very long time can communicate very quickly. Because of their shared background and knowledge, even complex messages can be encoded, transmitted, and decoded very quickly.

People whose jobs depend on accurate communication create long messages that are full of detail. The messages are sometimes hard to encode and transmit, but they are almost guaranteed to be accurately received. These people will not only have an important message, but they will describe how they developed that message. This allows multiple receivers, maybe even in different countries, to understand exactly what the message was.

Novelists and artists also have to deal with the process of communication. Many times, an artist or writer wants to invoke a particular emotion or response. By increasing the amount of effort put into the message and encoding it, there is greater likelihood of the message being understood and the proper response being achieved.

Communication is not a simple process. However, humans have a lot of experience, even as babies, with sending and receiving messages. It becomes so natural that we don't even think about the actual process. There is a lot to be gained from studying this process. We can use the knowledge to craft more effective messages that are easier for the intended audience to understand.

ELL CONSIDERATIONS:

- To establish a common understanding of the topic with ELLs, discuss this sentence from the passage: *There are four parts to any communication: the message, the encoding, the transmission, and the decoding. Ideally, the message remains the same throughout the process.*
- Since ELLs are aware of the problems involved in communication, discuss the communication process in light of language learning. Ask, for instance, "Which part of communicating in English is hardest?" "Which part of communicating in English is easy?" "Is it easy or hard to understand in English?" "Why is it easier to explain things in your language than in English?" "How do you know if you understand correctly?"
- Use the language of the passage to expand the topic of communication. Ask questions such as, "Which factors can influence a message?" "How can culture influence a message?" "How can someone's health influence a message?" "How can people be sure they understand each other?"
- Call attention to the following tier two and tier three vocabulary words in the passage for some pre-discussion. In addition, teachers may use the words below in a sentence or use synonyms or antonyms in the discussion.

Tier two words:

- constraints
- explicitly
- fidelity
- garbled
- hampered
- invoke
- novelists
- transmission
- verify

Tier three words:

- decode
- encode
- fiber-optic
- transmit