Chapter 22: Why MAST Works

Objective 1*: Participants will be aware of the theory that forms the basis for the MAST process and will be able to communicate the theory to others.*

Objective 2*: Participants who are using the MAST steps will be able to adjust their process to ensure the highest quality and completion rate, without compromising the purpose of the timing and sequence..*

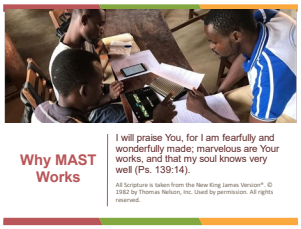
Core Concepts:

- The MAST steps are designed to create the best translation possible by using the ways God designed our minds to work.
- The Cone of Experience shows us that the more kinds of interactions we have with information, the better we can remember and understand that information.
- The mind needs information not only to make sense, but also to carry meaning.
- Our minds apply previously learned information to new information to make it meaningful, which can be a good thing or can lead to errors.
- Our minds store short-term memory for 5-7 minutes; then we must use that new information within the next 7-10 minutes to store it in our long-term memory.
- The right and the left sides of our brains have different strengths, and we remember and comprehend information the best when we engage both sides of our brain in working with that information.
- Bloom's Taxonomy shows that for new learning to be useful, it must be applied at higher levels of thinking.
- Because the timing and sequencing of the MAST steps are based on these scientific principles, the quality of a translation will be compromised if translators skip, re-order, or shorten/lengthen steps.

I will praise You, for I am fearfully and wonderfully made; marvelous are Your works, and that my soul knows very well (Ps. 139:14).

Time: 30-45 min.
Materials:
- ✓ *White board*
- ✓ *Slide Deck: T3.Slides_22_ Why MAST.Works*
- ✓ *Bible with place markers*

Teacher's Notes:



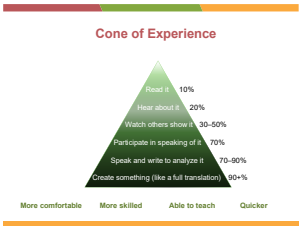
Intro:

n this session, we are going to talk about how the MAST process was designed based on some specific ways God created the human mind to work.
We discuss six ways in which our brain works.

MAST was developed on a foundation of principles from the fields of education, psychology, and neuroscience.

1. The Cone of Experience

God has created us in such a way that, the more kinds of interactions we have with information, the more we learn and can use that information.



In Deuteronomy 17:18–19, we see God's commands for a godly king to learn His law: he must not only write down his own copy of God's words, but also read them often and then act on them. This allowed him to **learn** in the best way. We learn different amounts of information, based on different interactions with it.

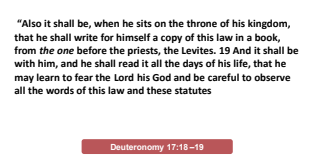
- **How have you seen your own learning improve when you use information in different ways?**

In Bible translation, before a draft is created, the three steps of Consume, Verbalize, and Chunk help the translator remember 70-90% of the information in the passage. The translator is then able to create a Blind Draft with the fewest errors possible.

- **How do you think translators' work differs as they use the steps more and more?**

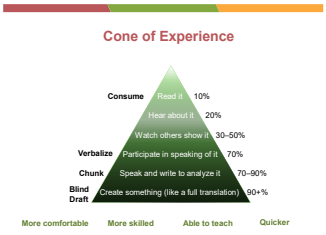
We have found in our work with partners that with practice, translators:
- become more comfortable with the process.
- gain more skill in translating harder passages.
- can teach the process to others.
- can translate more quickly.

Notes:



Invite a volunteer to read Deuteronomy 17:18–19.

Example: imagine just reading about how to do something, versus having someone explain it to you, versus watching someone demonstrate how to do it.



Workbook p. 107, Figure A

2. Sense and Meaning.

Information is retained and can be used when it makes sense and is meaningful.

- **Which of these two pictures has more meaning for you? Why?**

Although both of these pictures *make sense*, they carry different amounts of meaning to different people, depending on each person's experience, personality, past learning, perception, or preference.

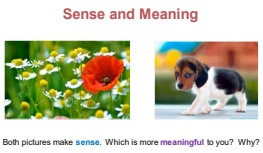
In the first step of MAST, Consume, the translator is taking in a passage that makes sense. When the translator then Verbalizes the passage in his/her own language in step 2, the translator is demonstrating that it has meaning to him/her. Step 3, Chunk, also makes the translator think about meaning because it requires looking for natural breaks that *fit* the meaning. These initial steps make the Blind Draft step possible because meaningful information from the Scripture passage is retained.

3. Connecting the Dots

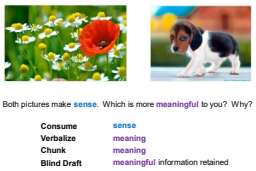
- **How many triangles do you see?**

Would you be surprised to find out that there are no triangles? So why do we see them?

Notes:
Images from the slide are also pictured on Workbook p. 108, Figures B and C.



Wait for responses.



Wait for responses. Image is also pictured as Figure D on Workbook p. 109.

We immediately look for triangles for two reasons: 1. We were asked to see triangles, so we try hard to do so, and sometimes we see them even in places where the whole image of a triangle does not appear. 2. We know from previous knowledge what triangles are and can recognize the suggestion of them in this image.

Our minds apply previously learned information to new information to make it meaningful. This is called *connecting the dots*.

When translators are creating their Blind Drafts, sometimes they "connect the dots" and translate based on their own understanding of the passage or on things they know from other passages of Scripture. The checking steps help translators see places where they have connected the dots— where they have added information or made assumptions that cannot be supported by that Scripture. This is one reason that Step 6, Peer-edit, is so important: a second translator may see where the blind draft has connections that are not in the passage.

4. Short-term and Long-term Memory

Our memory has been designed by God to work in a specific way.

Our **short-term memory** can only **hold** information for **5 to 7 minutes** before it replaces that with new information. Then we

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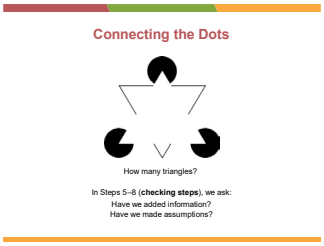

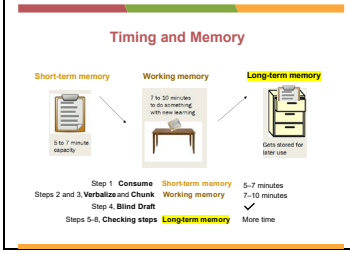

need to do something with that information, just like we talked about in the Cone of Experience.

The most effective **use** of new information that we take in happens within the next **7 to 10 minutes**. We call this our **working memory**.

If we do something with the new information in those 7 to 10 minutes, that information gets stored in our **long-term memory** so we can use it **later.**

This is why timing is important in the drafting steps!

Consume uses short-term memory, so it should only take **5 to 7 minutes** to read or hear one Scripture passage.

Verbalize and Chunk use working memory, so they should directly follow the Consume step and be complete within **7 to 10 minutes**.

Input/output theory explains this: once a person has received “input,” the confirmation of learning comes as they share what they have learned, or “output” their learning.

The **Blind Draft** will be easier if these timeframes are followed. Taking longer may seem to help, but in fact the brain will be dumping information.

Notes:

Checking steps have no time limit because the passages of Scripture are not only written down, but they have been worked with and are now **stored in long-term memory.**

5. Right Brain, Left Brain

Each of our brains has been created with two different sides, and each of the sides has different strengths. We think with both sides of our brain, but most people have more strength using one side of their brain or the other.

- **Which list best describes how you usually think?**

The way you most often think may line up with one or the other of these lists.

However, we each think best when we are able to use **both sides of our brains**. This is called **lateralization**. You can imagine this working in the same way as using both sides of the physical body: although it is possible to get from one place to another by hopping on one leg, if we can use both legs to walk or run, things go much more smoothly.

Because of the advantages of lateralization, the drafting steps are designed to alternate between using strengths on each side of the brain, while the checking steps combine the use of both sides:

Step 1 – Consume—**left**

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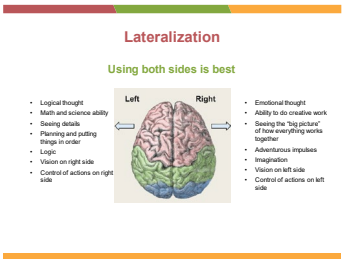

Go over each list, one item at a time. Also pictured as Figure E, Workbook p. 111.

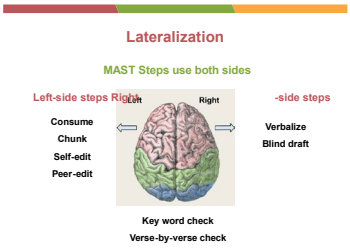

Figure F, Wbk p. 112

Step 2 – Verbalize—**right**
Step 3 – Chunk—**left**
Step 4 – Blind Draft—**right**
Step 5 – Self-edit—**left**
Step 7 – Peer-edit—**left** (for someone else)
Step 7 – Key Word Check—**both**
Step 8 – Verse-by-Verse Check—**both**

6. Higher-level Thinking.

This diagram is called *Bloom's Taxonomy*. It shows that learning begins at the lowest level of intaking new information and understanding it. For this new learning to be useful, it must be applied at the higher levels. Let's examine this using a simple example: a pencil.

1. The most basic level is just **remembering** information: **What is it?**
2. Next, we need to **understand**: **What does it do?**
3. Then we **apply** what we know, to think beyond just what we see on the surface: **What else could it be used for?**
4. Next, we can **analyze** our application: **Why would you use a pencil instead of a pen?**
5. We can **evaluate** what we have understood so far: **Does a pencil work for every writing need? Why or why not?**
6. Finally, we can **create** something new, based on all we have learned: **How can you improve the pencil?**

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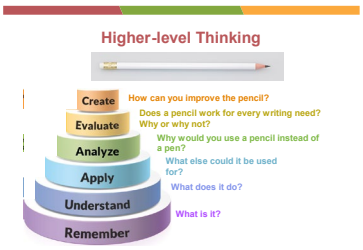

Figure G, Workbook p. 113

Pause after each question for discussion.

Analyze: to consider the components, structure, and organization
Evaluate: to make a judgment call about something's usefulness or *value*

When we apply this to the steps of translation, **Consume** starts at the most basic level. Then we work our way up, applying higher levels of thinking as the steps go on. The **Blind Draft** and the **checking steps** are all performed at the highest levels.

Let's go through the steps and consider which level of thinking is required at each:

1. Consume—**remember/understand.**
2. Verbalize requires **understanding.**
3. unking is **analyzing.**
4. Blind Draft—**understand** and **remember**, in order to **create**. The translator is recording Scripture in his own language for the first time.

The checking steps all happen at the higher levels of thinking.

5. Self-edit—**apply, analyze**, and **evaluate.**
6. Peer-edit—**apply, analyze**, and **evaluate.**
7. Key Word Check—**analyze, evaluate**, and **create** (finding or borrowing words for new ideas).
8. Verse-by-Verse Check—**apply, analyze**, and **evaluate.**

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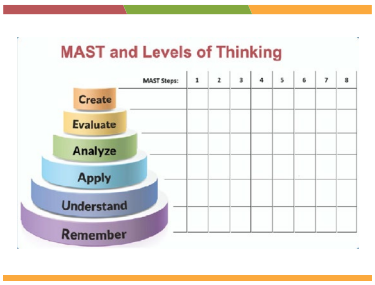
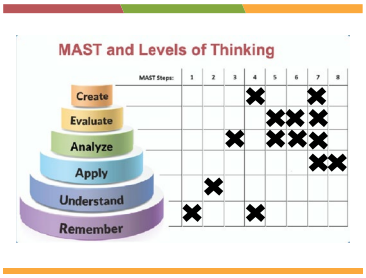


If time allows, have participants tell which level of thinking is required at each step (they can fill in their answers in Figure H, Workbook p. 113) before giving them the answer.



Confirm: Participants understand that the MAST steps are based on scientific principles, and there are good reasons for their timing and order. They understand that the steps have been carefully designed according to how God has created our minds to work.