

Member's Quarterly

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Feature

Bite Off a Chunk

Create the chunking design in your training

Do you remember when we were young kids? We used to learn things a bit at a time. Well, it turns out that no matter how old we get, that's still the best way to learn new things. We have fancier names for some of these methods now, but one that is popular in the training industry is chunking.

Chunking is the process of breaking down instructional materials into smaller, bite-sized pieces and then arranging those pieces into a sequence. By arranging the pieces into a sequence, you make it easier for your learners to remember the material.

How chunking works

How many things can you remember at a time? Most people can only remember four to seven bits of information from one moment. Chunking helps pass this limit by creating meaningful patterns from the information we're learning, thereby connecting the dots of all the small details into one big piece of information.

Once a meaningful pattern has been created, our brain codes and stores the information. This is called pattern recognition, and it not only feeds your creativity, but it also boosts your brainpower. This is the essence of chunking — creating links between pieces of information to create one big piece of information. For example: combining your grocery list into a word, like FLOAT — figs, lettuce, oranges, apples and tomatoes.

Memory types and how we learn

There are three memory types: sensory, working, and long-term.

Our sensory memory collects information from our environment, such as people in a room and the temperature of the room. Our working memory gathers fractions of information from sensory memory. What's collected in our work-ing memory is conscious and being processed by our brain in that moment, hence 'working on.' Then there's our long-term memory, which stores pieces of information from our working memory-this is called encoding.

Where the learning bottleneck happens for us is with our working memory. The working section of our memory can only hold information for a short time and becomes easily overwhelmed if there's too much to process. Once our working memory is overwhelmed, the information we're trying to store has less chance of becoming long-term.

This is where chunking helps. Chunking avoids overwhelming the working memory by creating small chunks of information for the memory to process. As a result, it encodes the information into the long-term memory. This is why chunking works for training. If you create meaning and a pattern from the information you're teaching, while also linking the smaller information to a bigger piece, the trainee will have a better chance of encoding the material into their long-term memory.

Chunking and training materials

Let's take a look at the chunking method when designing training materials. First, know your group. Are they novices? Are they experts? If your training group are novices, it's suggested to break the material into



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four smaller chunks because you'll need to teach the group the foundation of the material. If they're experts, which means they have existing knowledge and patterns of the information already stored in their brain, you can break the material into four larger chunks.

Here are some suggestions for creating a 'chunking design':

Break it down

Start by looking at your training material as a whole. What are the important bits of the curriculum? What are the pieces of information that make up the topic or concept? Review all the details: What are topics of the modules? What are the lessons within the topic? Are there any activities to connect the lessons or e-learning initiatives? Once you've identified the big pieces, break them down into smaller, logical items.

Tip: Consider how you want the trainee to understand the information. Try to create a logical flow by building the foundation of the material or drawing from existing knowledge to create new patterns. You can do this by organizing the material from simple to complex or familiar to unknown.

Organize and filter

Once you've divided and organized the material, begin to revise the individual parts, removing any unnecessary pieces. Ask yourself: Is this related? Is it important or just nice to know? A good rule of thumb is when in doubt, leave it out.

Tip: There are different styles of organizing you can use, such as categorization, lists and task sequence flow, which is breaking down each task to illustrate how the flow of the process works as a whole.

Structure and design

Next is the designing process. Ideally, you want to design and structure the information into moments. One piece of information is one moment. Use this structure and design for slides and e-learning screens. Keep in mind that one slide or screen equals one piece of information. Always remember that our memory can only absorb four chunks of information at a time.

Tip: When designing the material, consider drawing trainees back to the main concept or key points of the material. This is a learning strategy called return and repeat. The return and repeat strategy solidifies the information in the trainee's brain by connecting individual pieces to the main concept or topic.

Review with four chunks in mind

Once you've finished designing the training material, step back, take a good break and then review again. When reviewing the material, ask yourself: Is this in a logical order? Is it too much information or too little? Is there enough context? Do learners have an opportunity to break before learning the next topic? Always keep in mind that we can only store four chunks of information in our memory at a time. ■