One-Size Orientation Fits All? Our Brain Doesn’t Say So!

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Hi! I am Nugget!
Agenda

1. Orientation Challenges
2. Luma Background
3. Luma’s E2A Model
4. Guidelines for Implementation
5. Reported Benefits
Orientation Challenges

Orientation can last several days and take a lot of time and $
Crash Statistics of Large Trucks, 2012-2015

- **2012**
  - Total Crashes: 317,000
  - Fatal Crashes: 3,486
  - Injury Crashes: 73,000
  - Property-Damage-Only Crashes: 241,000

- **2013**
  - Total Crashes: 327,000
  - Fatal Crashes: 3,554
  - Injury Crashes: 69,000
  - Property-Damage-Only Crashes: 254,000

- **2014**
  - Total Crashes: 411,000
  - Fatal Crashes: 3,429
  - Injury Crashes: 82,000
  - Property-Damage-Only Crashes: 326,000

- **2015**
  - Total Crashes: 415,000
  - Fatal Crashes: 3,598
  - Injury Crashes: 83,000
  - Property-Damage-Only Crashes: 328,000
Challenges

Are drivers adequately prepared?

Multiple Locations

Different Experience and Skill Levels

Lots of Paperwork and Topics to Cover

Different Generations and Attention Spans
Luma “Brighter Learning”

- Luma founded in 2008 is an instructional design and _learning_ company.
- We study how people learn and have found that different types of training is needed for different industries and different learning objectives.
Learning is… "a persisting change in performance or performance potential that results from experience and interaction with the world" (Driscoll, 2005, p. 1).
E2A Instructional Model

For the past 5 years we've collect analytics through drivers input, feedback, and behaviors and found three overarching principles to be critical to driver learning:

- **Engagement**
- **Efficiency**
- **Authenticity**
Luma Driver Training Feedback

30,684 unsolicited feedback, carriers that use our system that ask the drivers, over 230,000,000 leaderboard points and 1350,000 digital badges.

See where they go, how much time they are spending and what they like and go back to.
Engagement

The first E in Luma’s E2A Instructional Model deals with engagement.

Engagement: Learning is promoted when students are attentive and motivated to learn (Merrill, 2012).
Engagement: Do I Have Your Attention?

There is a psychological process for learning (e.g., Clark, Nguyen, & Sweller, 2006).

The first step: Get the driver’s attention...and keep it!
Engagement: Attention

Learning: About 30 seconds (Groupman, 2016; Lopatecki, Rose, Hughes, & Wilson, 2017).

Video: Microsoft 8 seconds, 1 second less than attention of a goldfish
Engagement: Working Memory

**Your Mind** wanders and/or being distracted from outside or unrelated information (Robison & Unsworth, 2015).

If there is a lot of unnecessary internal or external distraction or information presented to drivers, it may bog down their **working memory** and overwhelm or underwhelm them.
Engagement: Motivation

Will the driver continue to engage because they are **intrinsically motivated** (where the topic is relevant and interesting to them), and they want to learn more?

Or maybe they continue to engage because they are **extrinsically motivated** and they have to finish because it is mandatory for the job, or maybe they earn points or rewards for completing the training.
Efficiency

The second E in Luma’s E2A Instructional Model deals with efficiency.

Efficiency: Learning is promoted when you create a learning environment that is aware of the limits of human cognitive capacity (Clark, Nguyen, and Sweller, 2006).
Efficiency: Cognitive Overload

Miller’s law states that the average adult may only be able to hold $7 \pm 2$ pieces of information in their working memory (Miller, 1956).

Even if they are motivated, their brain might put a halt on the learning because it is “full”. If the brain is overloaded in their working memory, it prevents them from making cognitive connections for long term memory.
**Efficiency: Activate Prior Knowledge**

**Online only training**
Give drivers an online pre-test to see what content they know and still need to learn. Drivers can briefly review, bypass, or engage in content that interests them and engage more deeply in the content they need to learn more about.

**Online and classroom training**
Give drivers an online pre-test to see what content they know before they come to class. Have different groups engaging in different content based on the results of the pre-test. Free up class time for topics that need more review or explanation.

**Classroom only training**
If you do not have an online learning platform, you can distribute the survey in paper when they come to class. Consider making this more efficient with an online option.
Efficiency: Schemas

What your brain is doing is making connections between the incoming information to prior knowledge or experiences.

It is like our brain saying, “Ah ha! I recognize something like this,” and we relate it to what we already know.
The end goal of the learning process is to have drivers retain and retrieve the information later. We want the information to be stored or encoded in their **long term memory** so it can be recalled and applied at anytime, anywhere.
Efficiency: Build Opportunities to Practice and to Review

Assessment can be used to reinforce learning!

As one driver who completed the Backing eNugget® put it, “These questions will keep your mind sharp.”

The key takeaway is that assessments can be used to reinforce and review important topics.
Authenticity: Conduct Ongoing Monitoring of Learning

How do you make learning relevant to the learners?

Ask us!

The key takeaway is you can use tools such as surveys, feedback loops, and analytics to get ideas on what your drivers find relevant and interesting.
The A in Luma’s E2A Instructional Model is all about building authenticity.

Authenticity: Learning is promoted when you make it relevant to the learners (Jonassen, 1999).
How do we know that what we are providing to drivers is relevant and meaningful to them to help them learn?

Here watch this video....

I already know this information.
Guidelines for Implementation
Luma Driver Training Feedback

Under each instructional pillar (Engagement, Efficiency, and Authenticity), here are some practical tips you can implement with your drivers that are grounded in our research.

We have had over 18,000 drivers through our trainings, and 79% return when there is no mandate for them to complete the training (58% return four or more times). This is because drivers report they like the trainings.
Engagement: Ascertain Driver’s Learning Preferences

Ask yourself, when are YOU the most motivated to learn?

If it is short and meaningful.

The key is to ask your drivers how they learn best. We have found the type of medium (e.g., animations, video, text, audio) may change depending on the goal or objective of the training and the delivery (online versus face-to-face).
**Efficiency: Keep Learning Entertaining and “Fun”**

How can we make learning “fun”?

I like to compete against my peers!

The key is to offer a variety of content formats and track what drivers access and report favorably. Consider how you can incorporate game-like features into orientation training. Make learning fun!
Efficiency: Create Shorter Sessions for Learning

Training is more than long clunky videos!

I learn best reading in my language on my iPhone.

The key takeaway is to look at ways to make delivery and content more efficient. Break content down and provide a variety of delivery formats to support the learning of all drivers.
**Efficiency: Create Shorter Sessions for Learning**

**Delivery**
It is important to keep in mind that learning does not necessarily need to happen at a specific time and a specific place. It can be ongoing. An example of how we have helped carriers redesign their delivery:

Drivers complete forms and basic training before they come to class. Frees up class time.

Drivers come to class ready to engage in shorter presentations and discussions.

Drivers leave class with an online tool that provides the opportunity for review and reinforces concepts.

Assignments can be made for drivers who need the extra reinforcement.
**Efficiency:** Make the Learning Environment Accessible and Easy to Use

What will make your learning better?

Thank you for asking me!

The key takeaway is that it is difficult to understand what someone needs unless you ask them. Ask your drivers what would make their learning experience better. The environment you learn in is as important for learning as the delivery and content.
Efficiency: Activate Prior Knowledge

What do you already know about this topic?

I learned most of it before.

The key takeaway is activating can help save training time and reduce the cognitive load on drivers. It can also make training more relevant and interesting to drivers because you are focusing the training on what they do not already know.
**Implement Surveys**
Providing opportunities for anonymous feedback lets drivers tell you what they need without feeling embarrassed or pressured.

**Use Feedback Loops**
Think of feedback loops as an ongoing cycle of monitoring. This should not be done just one time. This is ongoing. Preferences change depending on content and goals of the learning session.

**Use Learning Platforms with Analytics**
We know that sometimes what a driver reports might not align with what they are using or need. Our analytics inform us as to how many drivers use these features and how often they use them.
Authenticity: Differentiate the Format, Learning Mediums, and Tools

I know you learn better listening in your own language.

I am glad you offer different formats for me!

The key takeaway is to differentiate the types of learning formats, medium, and tools.
Authenticity: Differentiate the Format, Learning Mediums, and Tools

**Differentiate the Format**
Consider all the different ways you could offer and deliver content (online, face-to-face, and a combination). Online opportunities allow drivers to go back and review content at their own pace.

**Differentiate the Learning Mediums**
Do not assume the way you learn is the way the drivers learn. Do not assume the status quo of video is okay. Based on our research, drivers prefer to have a variety of types of mediums and they do not like video.

**Differentiate the Learning Tools**
We have found the learning tools for one carrier may not be the same tools needed for another. Look at the analytics to see what tools the drivers actually use.
Benefits

When learning is more relevant, drivers show a willingness to **engage** in it.

This results in **changes in behavior**.

As one driver who completed Exercising with Limited Equipment eNugget® put it, “Great program wife says I’m looking better and I’m feeling better.”
Contact Luma Today!

Let Luma help you build a custom orientation training that incorporates the elements of the Luma E2A Instructional Model.

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