inside the buyer's brain

the neuroscience of *credibility*

▸ how to cultivate trust and authority on virtual sales calls

b2b
decision*labs*

the three levels of *credibility*

Remote selling offers a myriad of advantages, but it also presents some obstacles.

Closing a sale in B2B contexts often relies on the vendor's established credibility, which implies coming across as convincing and believable. But how do you establish credibility quickly in a virtual environment, especially when attendees don't already know each other?

Credibility can typically be established at three levels:

- The credibility of the message.

- The credibility of the source (or speaker).

- The credibility of the media (or organization) that carries it.

For example, if you listened to a data-backed report on blockchain delivered by a seasoned partner from Deloitte during an event hosted by the reputable company, it's likely that credibility is high. However, if you received information about the connection between the COVID-19 virus and 5G technology from a Twitter account with only four followers, it's likely that credibility is low.

There are many expert opinions about how to appear trustworthy and credible. But how do you influence the three levels of credibility from a scientific perspective?

What, specifically, can you do to ensure your virtual audiences perceive your sellers—and your message—as credible?

That's what you'll discover in this report. With insights from three new neuroscience research studies conducted with real B2B professionals, you'll learn how the number of sellers who deliver your message (and their skills) influence your buyer's experience, how something as short lived as speaker introductions can impact an entire sales pitch, and why establishing credibility means removing an age-old approach and adopting new techniques for the modern buyer's brain.

Dr. Carmen Simon
Chief Science Officer
Corporate Visions and B2B DecisionLabs

build credibility

on virtual sales calls

Your sellers' ability to build credibility with buyers is critical. Without credibility, your prospects and customers might feel skeptical as to whether your solution can effectively meet their business goals.

The studies in this report offer several practical guidelines for virtual presentations. And they show that even simple changes to your presentations can make a big impact in making your sales pitch a success.

**DON'T SPLIT THE PRESENTATION**

INVITE INTRODUCTIONS

USE FREQUENT COGNITIVE CLOSURE

inside your *buyers' brain*

Every B2B DecisionLabs neuroscience study is conducted with actual B2B professionals and real B2B content. Researchers used the following equipment to monitor the participants' subconscious reactions as they watched virtual sales presentations:

- **EEG (electroencephalogram)** cap for recording brain waves.

- **ECG (electrocardiogram)** cable for recording heart rate.

- **Eye tracker** for recording the gaze and where the eyes fixate.

- **GSR (galvanic skin response) device** for measuring peaks in arousal.

This combination of neuroscience tools provides a comprehensive and undiluted view into people's physiological and psychological reactions in real time.

EEG

ECG

Eye tracker

**GSR**

4
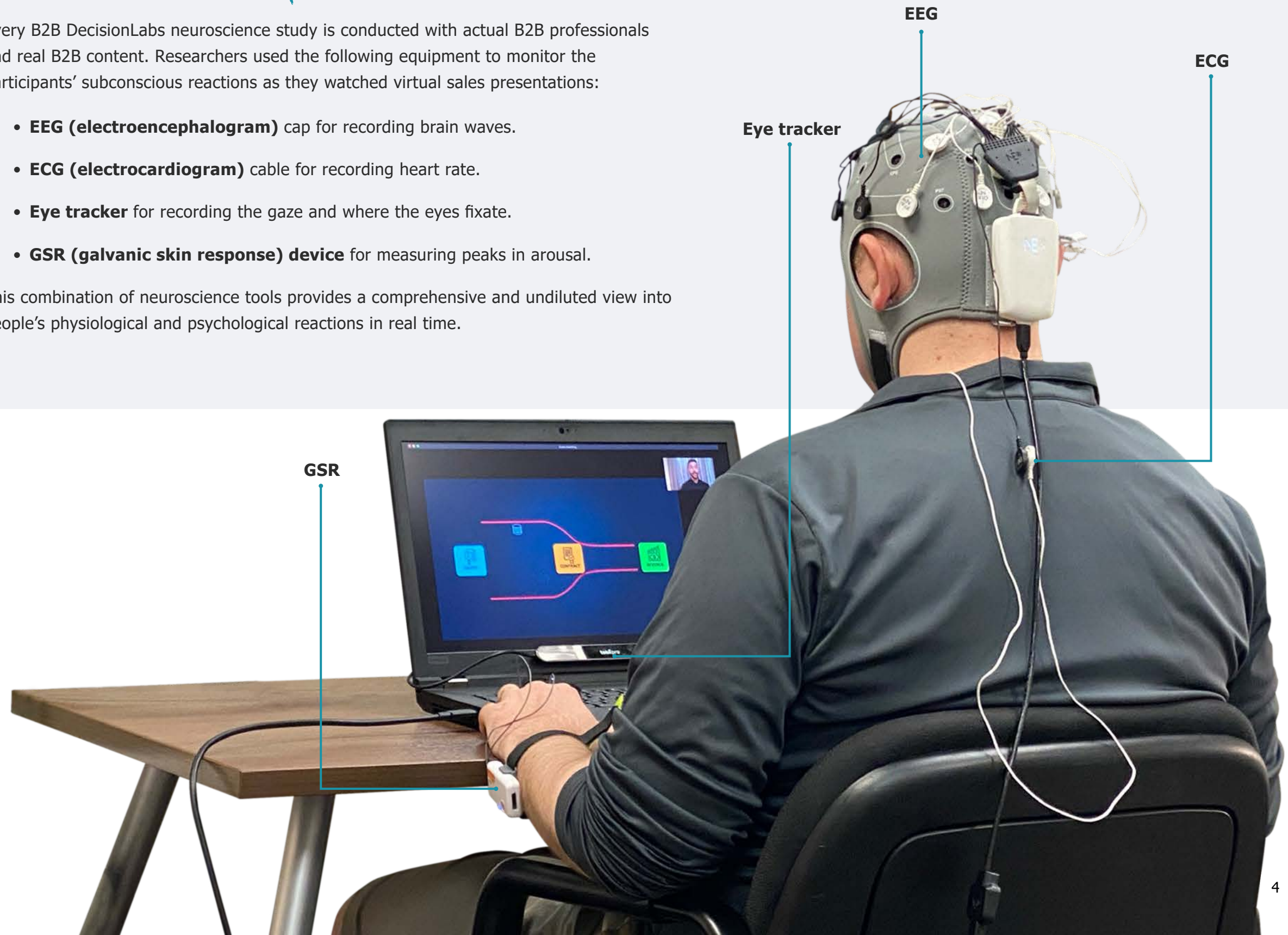
what we measure

After participants viewed the presentations in these studies, researchers analyzed the following variables:

▶ **Cognitive Variables:**

- **Attention** – a state of focused processing, concentration, or persistent focus across time.

- **Motivation** – the desire to approach a stimulus to obtain something.

- **Working memory** (cognitive workload) – the storing and manipulation of information in short-term memory until completion of a cognitive task.

- **Fatigue** – a decrease in alertness that can impair efficiency, performance, and memory retrieval.

- **Approach/Withdrawal** – the emotional response to positive or negative stimuli.

- **Memory** – the process of encoding, storing, and retrieving information.

▶ **Affective Variables:**

- **Valence** – an emotional state within a pleasure-displeasure continuum that ranges from positive to negative.

- **Arousal** – the general level of alertness and wakefulness of a person, ranging from calm to very intense.
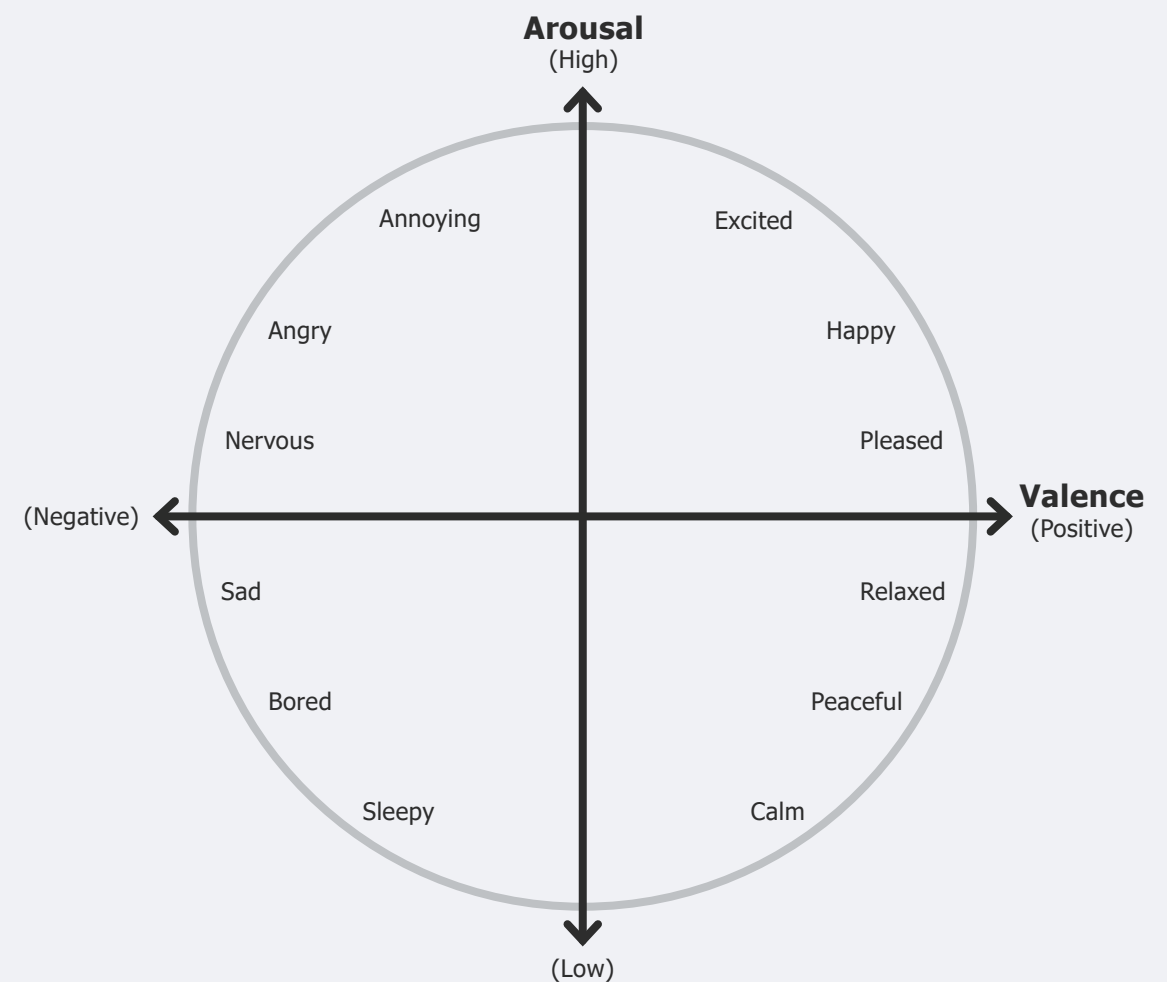
Valence and Arousal are considered two independent neurophysiological systems at the foundation of all other affective states. Varying degrees of valence and arousal impact emotions, which are essential to memory and decisions.

build credibility on virtual sales calls

don't split
the presentation

are two sellers
better than one?

The human brain relies on heuristics—mental shortcuts that allow people to solve problems and make judgments quickly and efficiently—to ease information processing. One such mental shortcut is the expertise heuristic. Experts' statements appear more credible than non-experts' statements.

Companies often hope to multiply these benefits by dividing a sales presentation between multiple speakers to deliver content that reflects their individual expertise.

In our recent industry survey, most B2B respondents agreed it was a good practice to split a sales presentation between two subject matter experts. Their justification for the split was not only for showcasing credibility but also for providing variety and alleviating boredom during a presentation.

Does their theory translate to reality?

To find out, we invited 99 business professionals to watch a recorded Zoom presentation about a software platform intended to help B2B companies with contract management. During the presentation, we monitored their subconscious reactions in real time.

the *study*

Ninety-nine participants were randomly assigned to one of the four groups and watched the same presentation. **The only difference between groups was whether one or two speakers presented the information, and how skilled those speakers were.**

- **Group 1** watched the presentation delivered by one speaker with good presentation skills.

- **Group 2** watched the presentation delivered by one speaker with poor presentation skills (shifting eyes, using comforting and distracting gestures, speaking in monotone, enunciating at the wrong time).

- **Group 3** watched the presentation divided between two speakers with good presentation skills.

- **Group 4** watched the presentation divided between one speaker with poor presentation skills and one speaker with good presentation skills.

The order of the speakers in Groups 3 and 4 was counterbalanced—some participants watched one speaker deliver the Introduction while other participants watched that speaker deliver the Solution.

The content of the presentation naturally rendered itself to two parts: the Introduction and the Solution. This was to mimic the practice at some companies to call on an engineer or other subject matter expert to deliver the more technical section of a presentation.

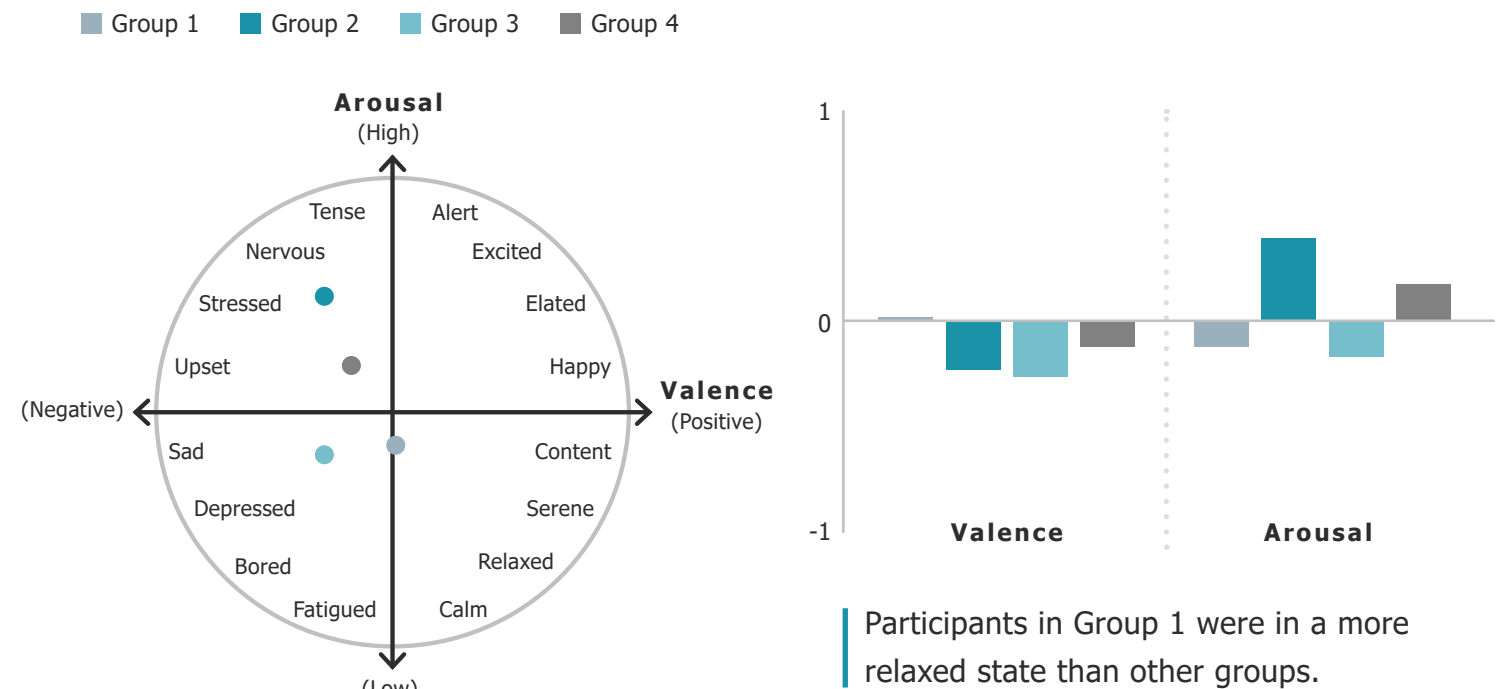**Introduction section**

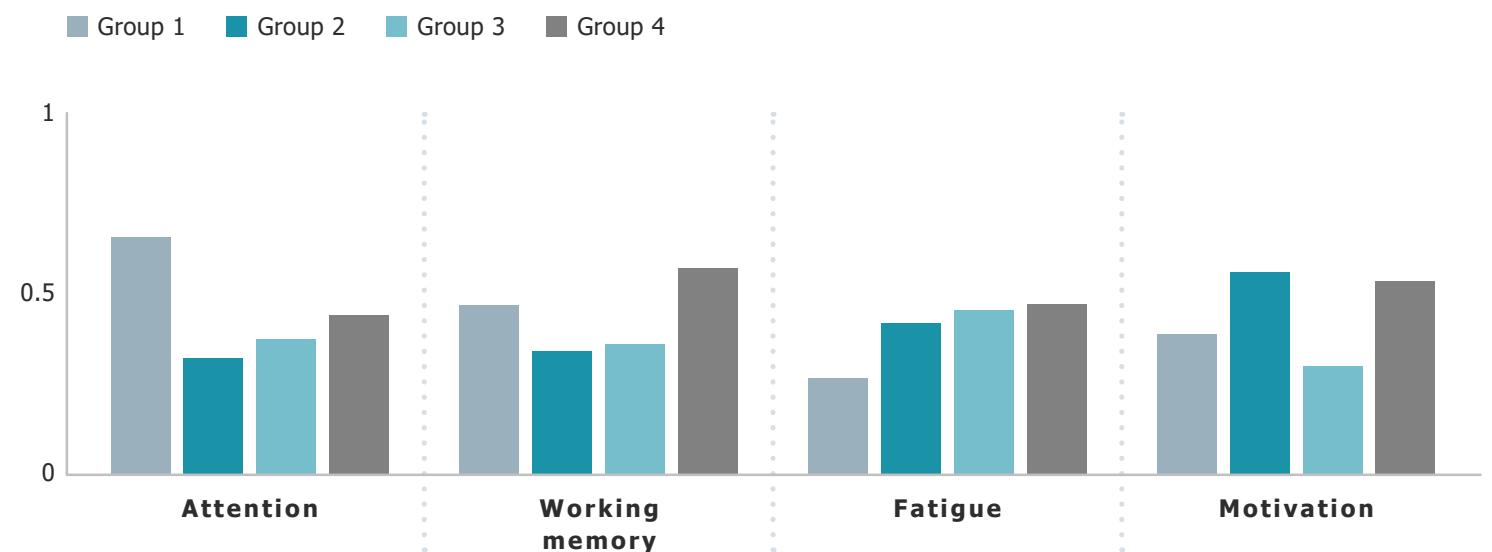**Solution section**
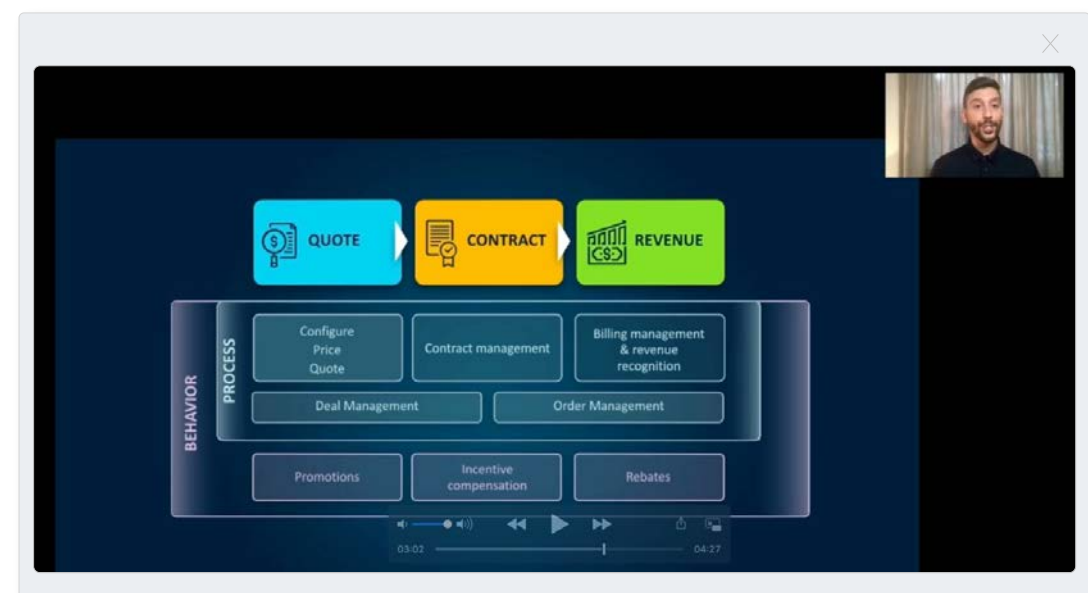
the wrong kind of
motivation?

Analyzing the EEG and ECG data for the entire presentation, researchers noted that **only Group 1 (the group that watched the entire presentation delivered by one speaker with good skills) was in a more relaxed state.**

Group 4—the participants who watched one good presenter and one bad presenter—experienced a higher cognitive load and higher motivation. However, given this groups' negative mood during the presentation, this kind of motivation likely indicates a desire for the session to be over.

Affective variables during the presentation

Group 1　Group 2　Group 3　Group 4

Participants in Group 1 were in a more relaxed state than other groups.

Cognitive variables during the presentation

Group 1　Group 2　Group 3　Group 4

Participants in Group 4 experienced a higher cognitive load and were eager for the presentation to end.

shifting *moods*

Looking closer at the affective variables for Group 3, it's clear that **including multiple speakers in the sales pitch provoked boredom toward the end of the presentation**, even when both speakers had good presentation skills.

Researchers observed a statistically significant reduction in valence between the Introduction and the Solution sections, suggesting that the audience in Group 3 did not appreciate the change of speaker for the second section.

However, when the same presentation was delivered by one speaker with good presentation skills, the opposite effect occurred: **participants in Group 1 were in a slightly negative state of mind at the beginning of the presentation, but they were in a much more positive state of mind toward the end**. There was a statistically significant *increase* in valence between the Introduction and the Solution sections.

Group 1 affective variables during the presentation
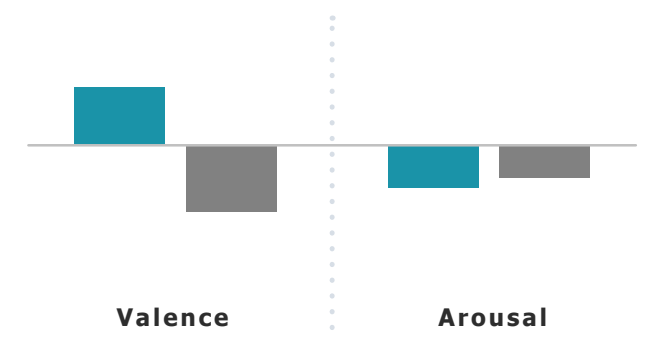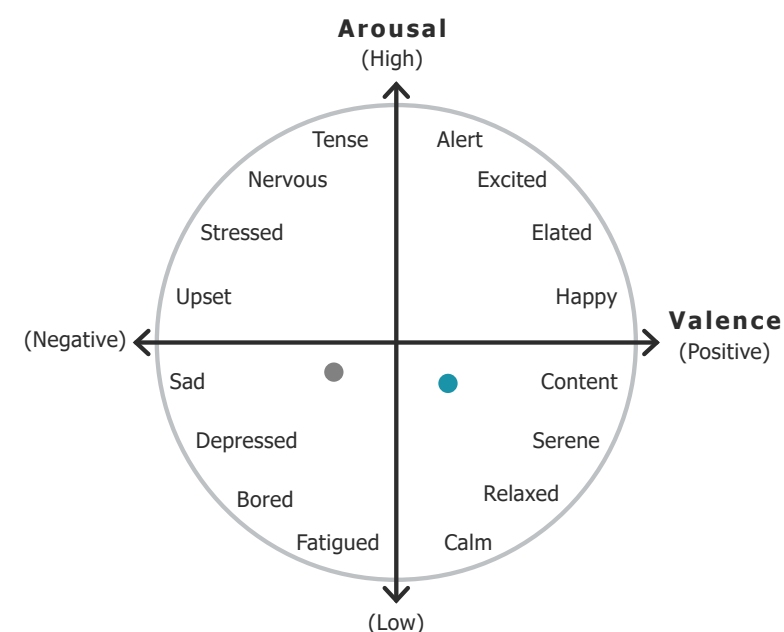
■ Introduction   ■ Solution
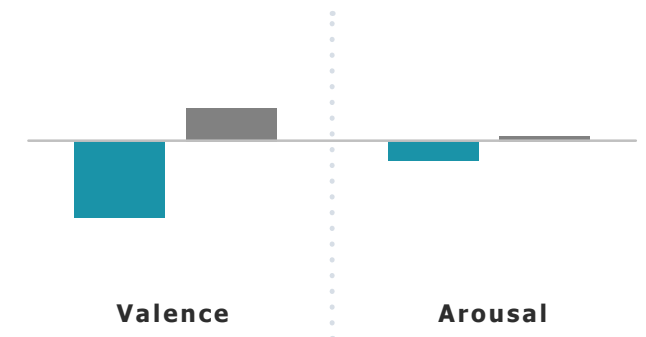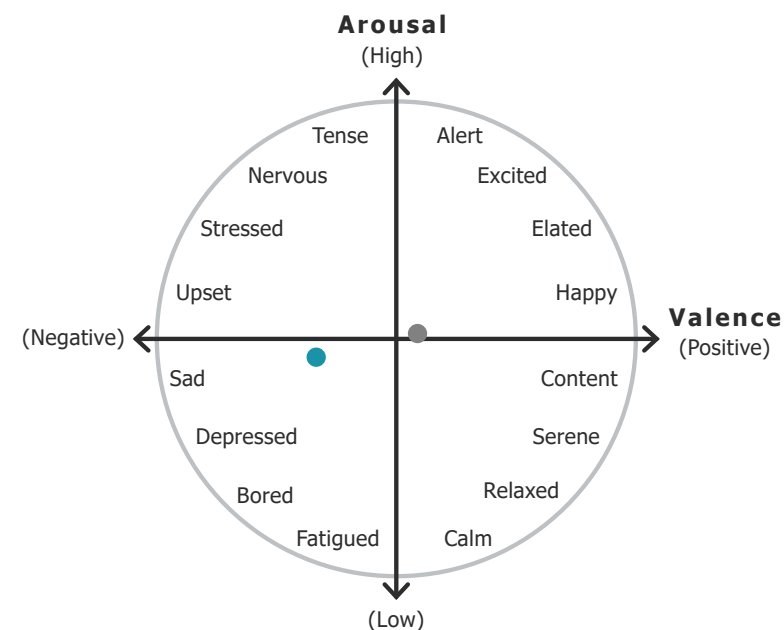
Participants who watched one good speaker were in a significantly more pleasant state of mind during the Solution section.

Group 3 affective variables during the presentation

■ Introduction   ■ Solution

Participants who watched two good speakers experienced a significant drop in valence during the Solution section.

delivery skills impact the *virtual experience*

Researchers also analyzed how the order in which the speakers with different skills presented the two sections affected Group 4.

When the bad speaker presented first (Group 4a), the audience started in a rather neutral state. **After the good speaker took over, the emotion trended toward a positive valence**.

In Group 4b, where the good speaker started the presentation, the audience exhibited high levels of positive valence, which reflected a good first impression, but the valence significantly dropped when the bad speaker took over the rest of the presentation.

Taken together, the findings so far suggest that if you have a choice, **it's better for one speaker to deliver a sales pitch. But if you choose to include two speakers, ensure they both have good presentation skills**.

If you must include one speaker who has subpar skills, assign that person to start the presentation, so the audience is in a positive state of mind at the end.

In other words, assign the good presenter to the most sensitive parts of a presentation, because that's what elicits optimal reactions from an audience.

Group 4 affective variables during the presentation

■ Introduction   ■ Solution   ● Group 4a   ○ Group 4b
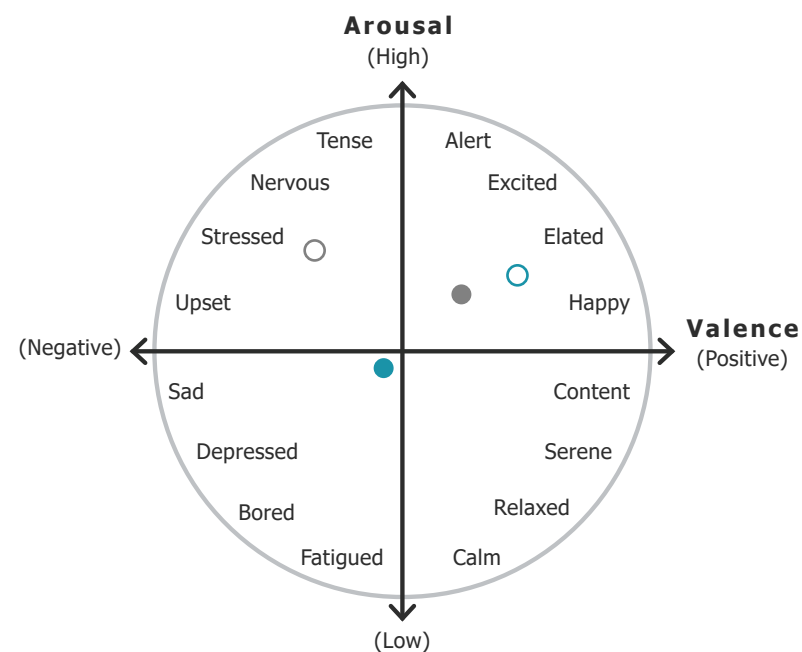
Valence was negative when participants watched the bad presenter.

better skills, better *memories*

Participants in Group 1 (who watched one good speaker) remembered the main message with 55 percent more accuracy than Group 2 (who watched one bad speaker).

There was a 10 percent difference in the quality of the memory responses between participants who listened to one good speaker (Group 1) and participants who heard two good speakers (Group 3).

The combination of one bad speaker and one good speaker in Group 4 led to the lowest memory score for the main message of the presentation. However, memory was higher when the bad speaker presented first (Group 4a).

Eye tracking data provides a reason behind these memory results—**the bad speaker distracted participants, while the good speaker drew more attention to the presentation.**

Memory results 48 hours after presentation

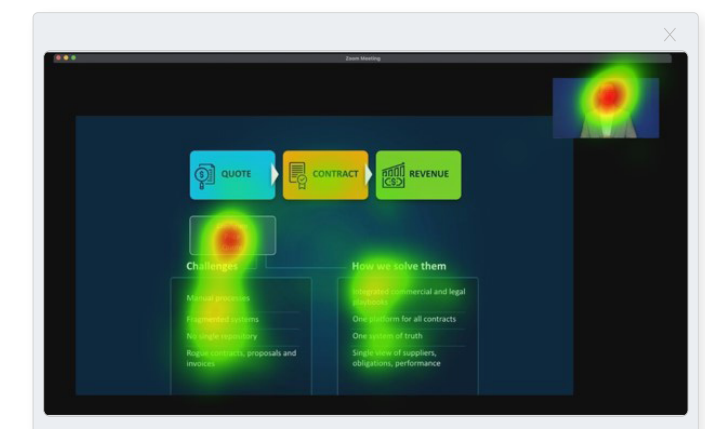■ Group 1   ■ Group 2   ■ Group 3   ■ Group 4a   ■ Group 4b

Total
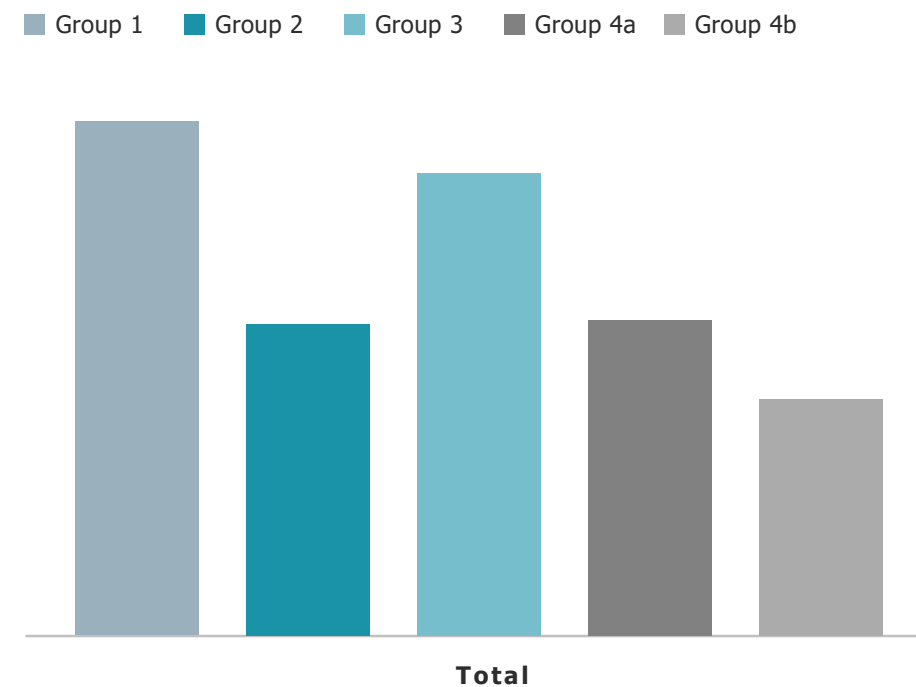
Participants remembered the presentation better when it didn't include a bad speaker. In Group 4, participants remembered more when the bad speaker presented first.

Good speaker
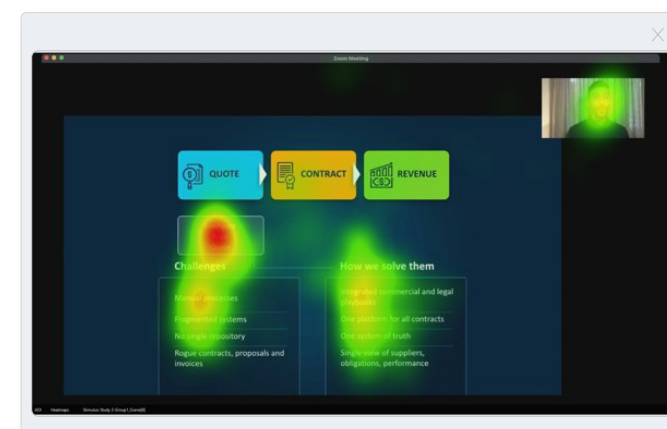
Bad speaker

The bad speaker distracted participants from the presentation.

build credibility on virtual sales calls

invite introductions

the impact of
introductions

Considering the need for connection, collaboration, and credibility during meetings, it's customary at the beginning of a virtual sales meeting for attendees to introduce themselves and disclose professional (and sometimes personal) details before starting a presentation.

This is beneficial, according to scientific literature related to building connections in remote settings. Such literature suggests that a strong connection between strangers can be achieved through self-disclosure—a technique that's been associated with establishing credibility.

But is every type of introduction beneficial? Does the style and length of your introductions affect your buyer's perception of the presentation that follows?

For this study, 99 participants were asked to watch a recorded Zoom presentation about a software solution for managing customer success.

Researchers determined the number of attendees (six) to include by conducting a brief survey with B2B sellers prior to the neuroscience study. In the survey, the majority of respondents said they typically invite three attendees from the client side and three attendees from their side.

the *study*

Ninety-nine participants were randomly assigned to one of the four groups and watched the same presentation.

The only difference between the groups was the way participants' introductions were delivered. A seller from the vendor side managed the virtual call, and the introductions of attendees from the vendor and client side were carried out as follows:

- For **Group 1**, the main presenter displayed a slide that introduced all six attendees (three participants from the vendor side and three from the client side) and said, "Welcome everyone. Here is a slide with everyone participating. I will give you a moment to see the roles and responsibilities. We have quite a bit to cover, so let's get started."

- In **Group 2**, the main presenter introduced himself and the other two people from his team. Then one person from the client side introduced himself and the other two people from the client team.

- **Group 3** heard all attendees introduce themselves one by one, mentioning only their names and job titles.

- **Group 4** heard all attendees introduce themselves, like Group 3, but each person added extra details to their names and job titles, such as additional responsibilities and goals for the call.

The presentation included six attendees—three from the client side and three from the vendor side.
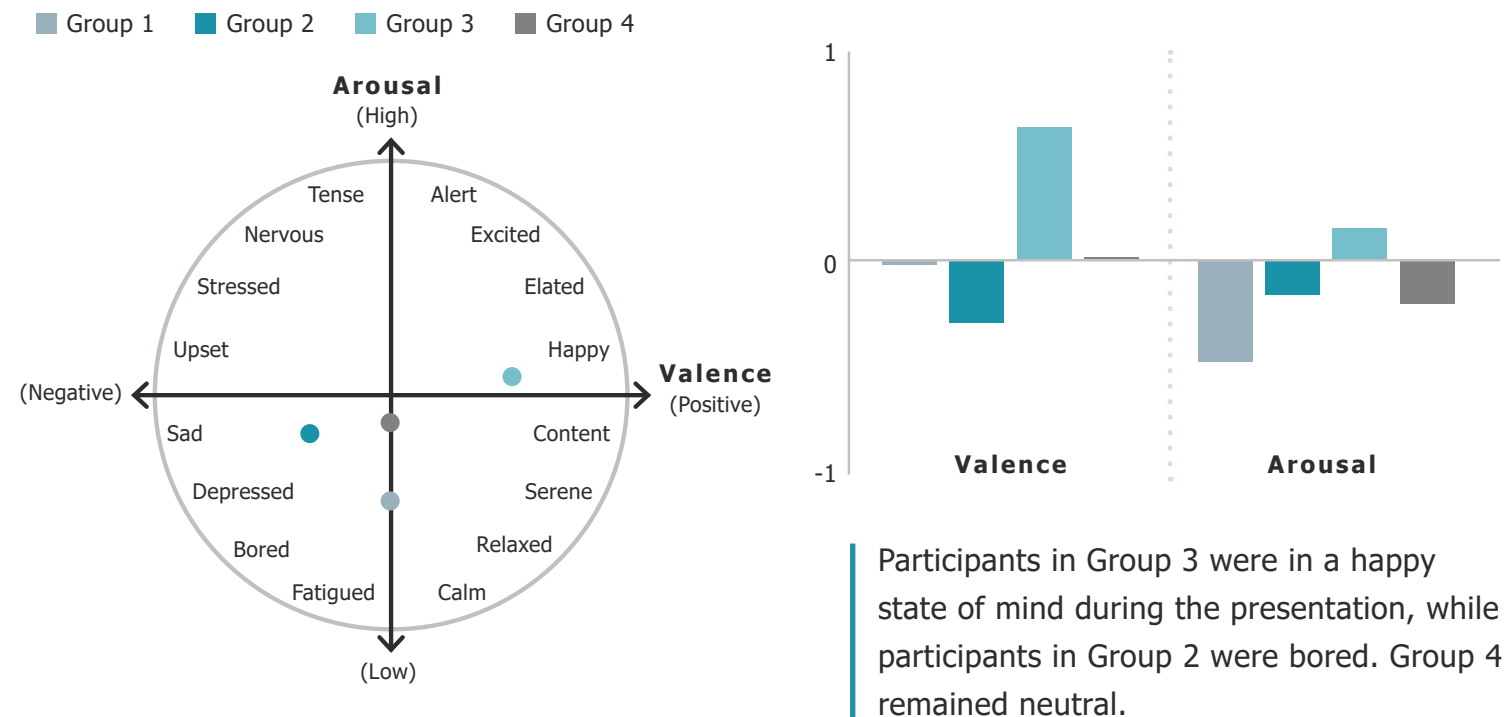
buyers enjoy

individual

introductions

Analyzing the affective variables for the entire presentation, researchers noted that **participants in Group 3 (where each attendee introduced themselves) were in a happy state of mind** during the presentation. But participants in Group 2 (where one person from each team introduced all the other team members) were bored.
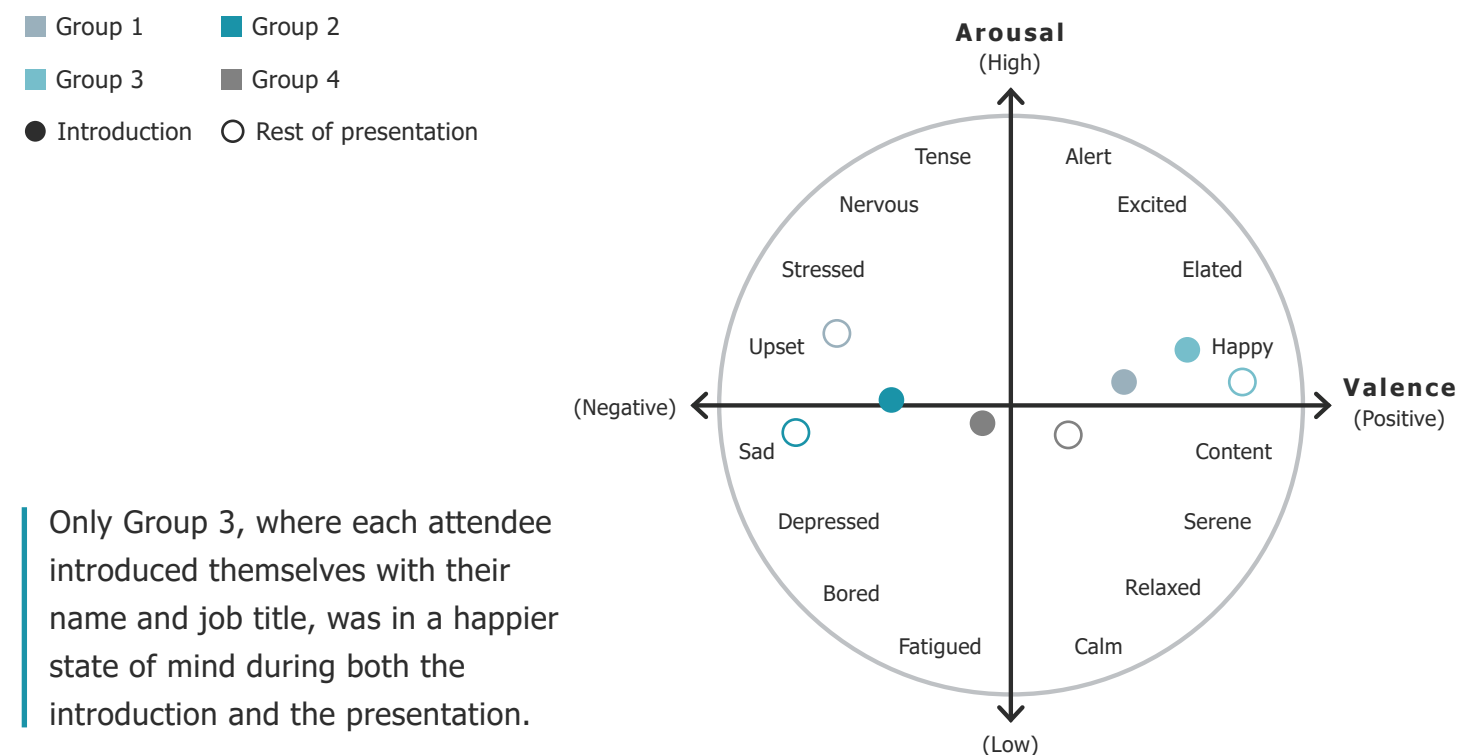
When comparing data for the introduction compared to the rest of the presentation, researchers noted a reduction in valence after attendees' introductions for Groups 1 and 2. These were the groups where the presenter introduced all the people in the group. The opposite occurred in Groups 3 and 4, where each attendee introduced themselves.

Groups 3 and 4 also experienced statistically significant reductions in arousal between the introduction and the rest of the presentation. Taken together, these results suggest that **participants became happier and more relaxed after each attendee introduced themselves.**

Affective variables during the presentation

Group 1   Group 2   Group 3   Group 4

Participants in Group 3 were in a happy state of mind during the presentation, while participants in Group 2 were bored. Group 4 remained neutral.

Valence and arousal for introduction vs. other sections

Group 1   Group 2
Group 3   Group 4
● Introduction   ○ Rest of presentation

Only Group 3, where each attendee introduced themselves with their name and job title, was in a happier state of mind during both the introduction and the presentation.

introductions
affect *motivation*

The cognitive data suggest that participants who listened to extra details during the introduction (Group 4) experienced a drop in motivation for the rest of the presentation.

The opposite occurred when the attendees kept the introductions short. Group 3 participants' attention and motivation increased after the introduction.

Researchers also observed that participants in Group 3 had the lowest attention. Combining that low attention with the results obtained from the affective results, **Group 3 exhibited a positive valence, low arousal, and low attention, which are a combination of variables indicative of trust**.

Memory quiz results were the lowest for Group 2. This is in line with the sub-par performance in the affective and cognitive variables for this group, which substantiates the guideline to **avoid having one team member introduce other team members**.

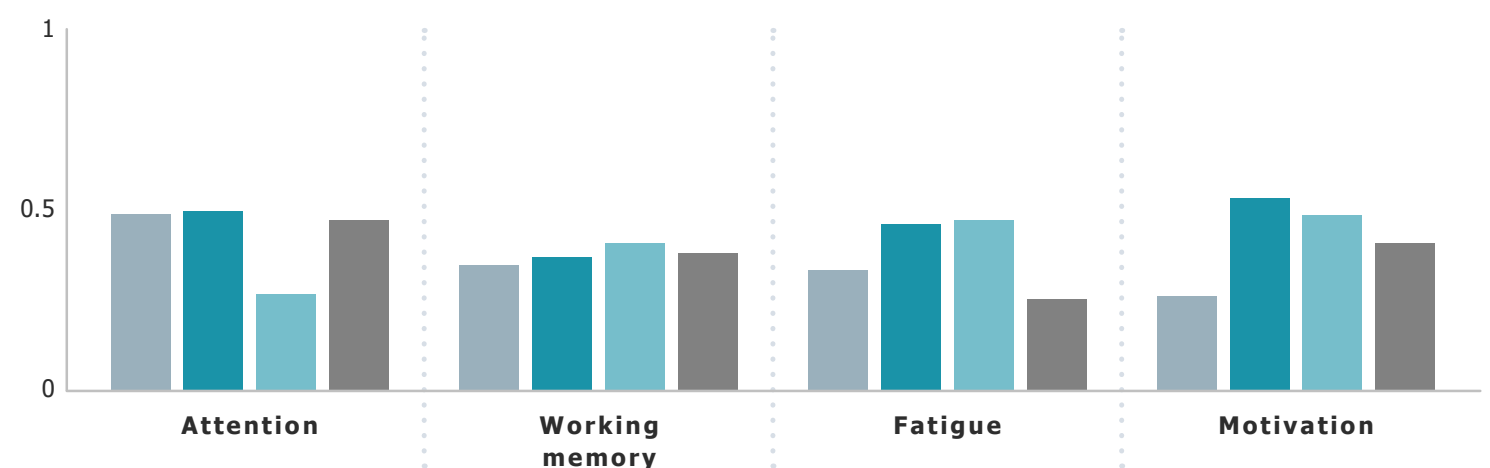## Cognitive variables of Groups 3 and 4

Legend: ■ Introduction ■ Rest of presentation
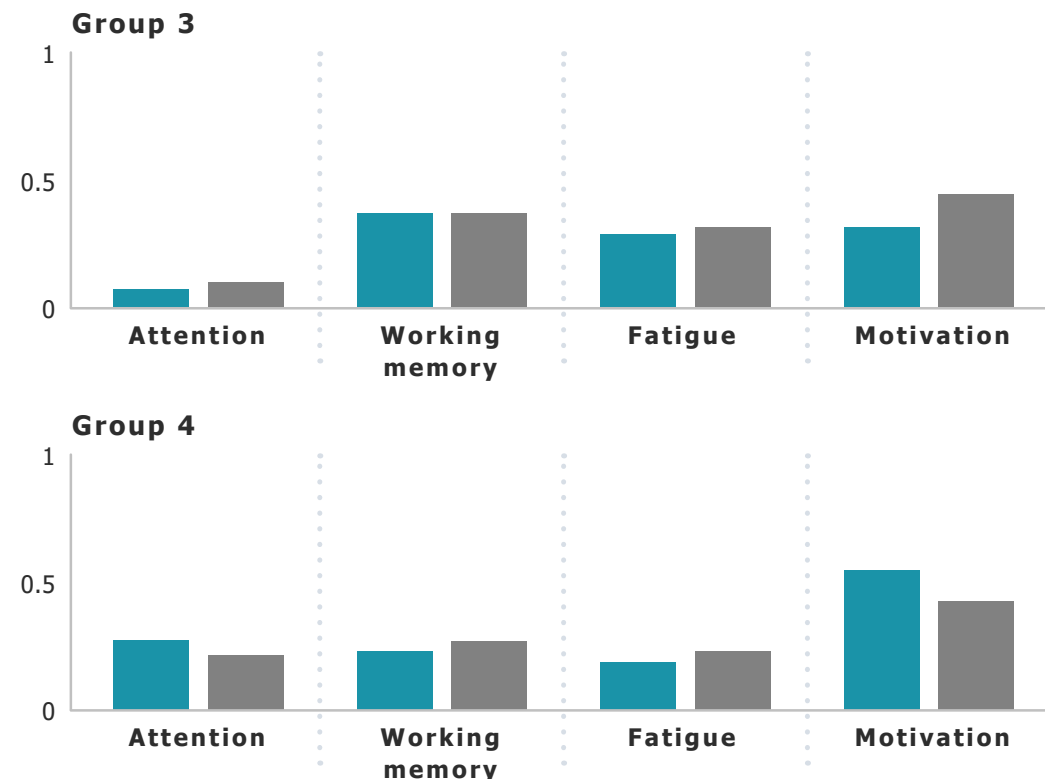
Group 3

Group 4

Participants who heard extra details during the introduction experienced a significant reduction in motivation for the rest of the presentation.

Cognitive variables during the presentation

Legend: ■ Group 1 ■ Group 2 ■ Group 3 ■ Group 4

Participants in Group 3 exhibited lower attention than other groups.

extraneous details, extra *distraction*

Eye-tracking data indicates that once participants got acquainted with the panel of attendees, they allocated less attention to it. All the groups had a similar interest in the presentation that followed.

The generally high level of attention might be attributed to guidelines we typically use for presentation design, such as explanatory visuals, pertinent stats, logical flow, and abundant animation. **The presenter in Group 3 received slightly more attention** (up to 15 percent) than in the other groups.

By contrast, **participants in Group 4 paid more attention to the panel and less attention to the presentation**. This group heard each attendee introduce themselves with extraneous details in the beginning of the call. But eye-tracking data shows that Group 4 paid extra attention to the panel even after the introductions.
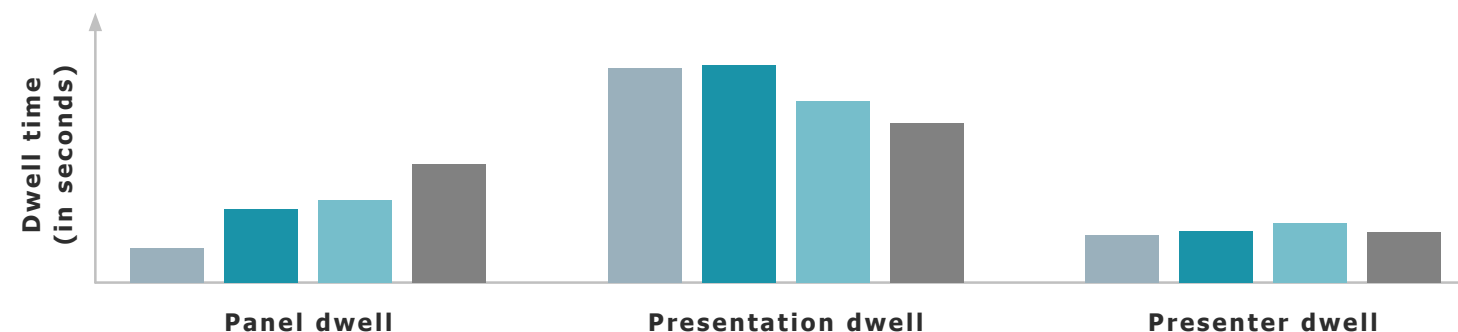
Group 3
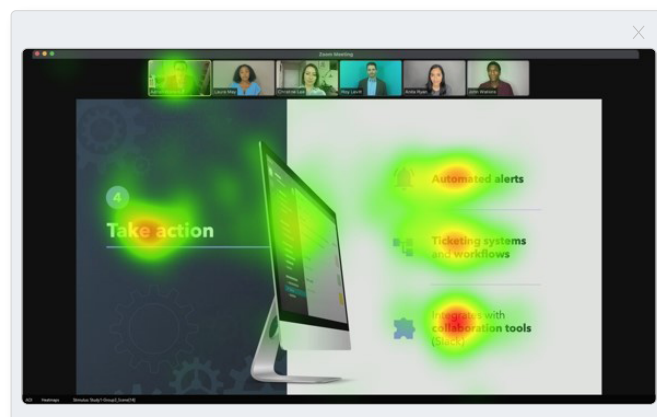
Group 4
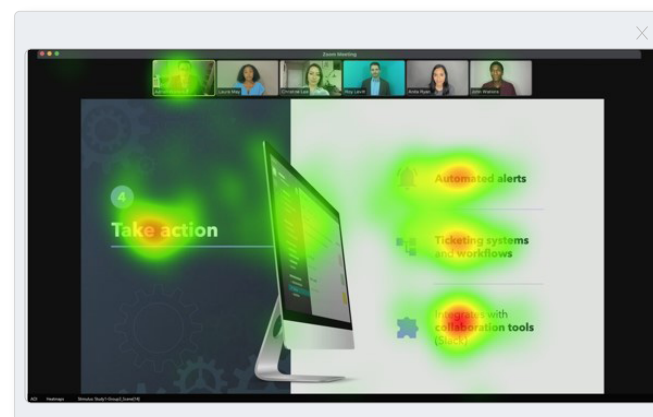
Group 3 paid more attention to the presentation and some attention to the panel. Group 4 directed extra attention to the panel.

Dwell time on the panel, presentation, and presenter

■ Group 1   ■ Group 2   ■ Group 3   ■ Group 4

Group 4 paid less attention to the presentation than other groups. And Group 3 paid more attention to the presenter than other groups.

build credibility on virtual sales calls

use frequent

cognitive closure

does cognitive closure help *close deals?*

In a business context, knowledge is useful when it's decisive—not uncertain or ambiguous. And your buyer's brain is likely to seek closure by searching for decisive knowledge regarding a concept and avoiding ambiguity.

The need for closure is assumed to derive from two general tendencies: urgency and permanence. When constructing knowledge, individuals typically want to obtain it quickly (urgency) and hold onto it (permanence). Such "seize and freeze" motivations are helpful because when they are achieved, the brain can conserve energy and take action.

One popular adage for offering cognitive closure is called the T3 principle, which stands for: tell them what you're going to tell them, then tell them, then tell them what you told them.

According to this approach, you would "close" important concepts and provide decisive knowledge twice: once at the beginning of a presentation and again at the end. Is this amount of closure sufficient? Or does the brain need more?

To find out, 99 participants were asked to watch a recorded Zoom presentation about a B2B solution intended to help capture customers by using intent data.
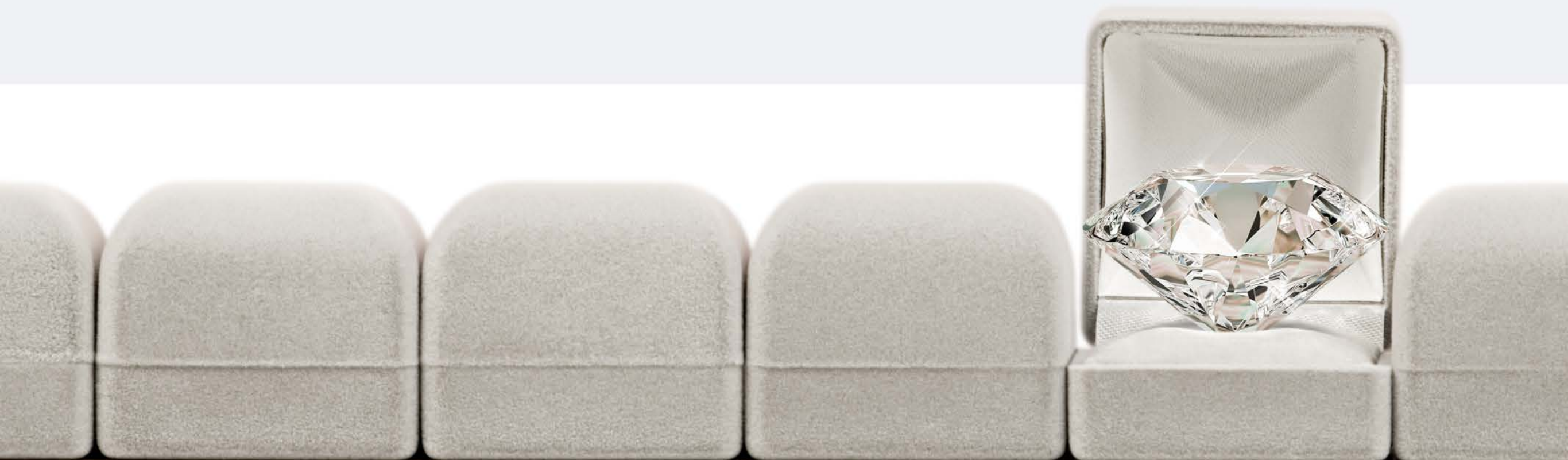
the *study*

Ninety-nine participants were randomly assigned to one of the four groups. The presentations in each group were almost identical except for closure frequency. Specifically:

- **Group 1** watched a presentation that was fluid, with no concepts fully "closed." No decisive knowledge was offered on the main concepts of the presentation.

- **Group 2** watched the same presentation as Group 1, except this group saw an agenda at the beginning of the presentation, which clarified three critical points to remember regarding intent data.

- **Group 3** watched the same presentation as Group 2, except, in addition to an agenda, this group saw a summary of the three main concepts at the end. The presentation in this group most closely reflected the T3 principle.

- **Group 4** watched the same presentation as the other groups, including an agenda and a summary, but in this group, the three important concepts were repeated, or "closed," two more times in the middle of the presentation.

Group 3 slides
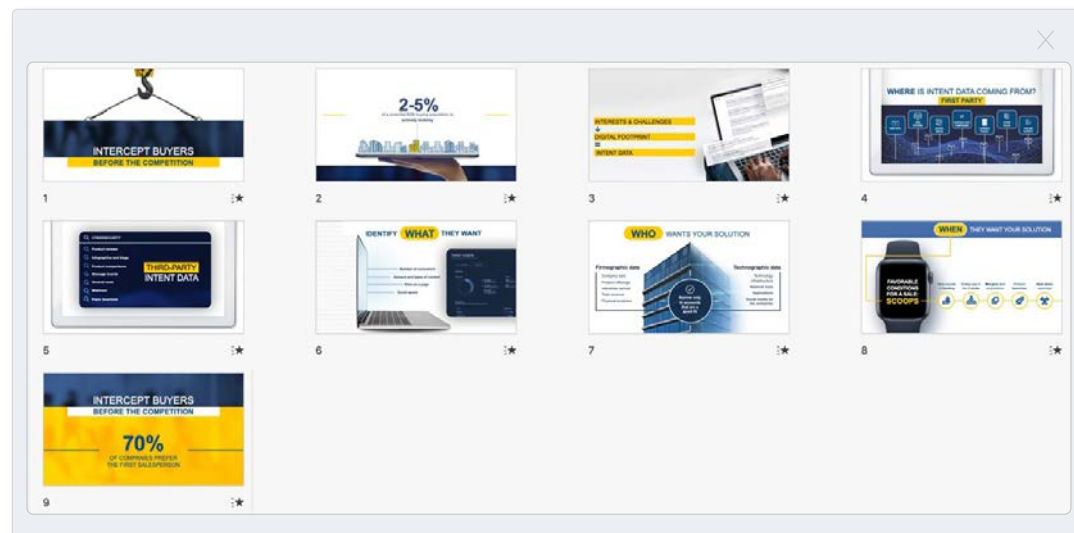
Group 4 slides

In Group 4, three main concepts from the sales presentation were "closed" four times.

feeling

(dis)content

The difference between Groups 1 and 2 was just one agenda slide. And researchers noted from the EEG and ECG data that both groups had high valence and low arousal—reflecting a somewhat quiet and pleasant experience.

Group 2, however, was slightly more alert, which might suggest that inserting an agenda and providing some closure (decisive knowledge instead of a fluid presentation) amped up the brain.

Comparing those affective variables to Group 3, researchers noted that, **surprisingly, participants did not enjoy seeing the agenda and summary**. This difference between the groups was statistically significant for both valence and arousal.

Group 4 was also in a negative state, but a less stressful one, as indicated by the statistically significant reduction in valence.

Affective variables during the presentation

■ Group 1   ■ Group 2   ■ Group 3   ■ Group 4
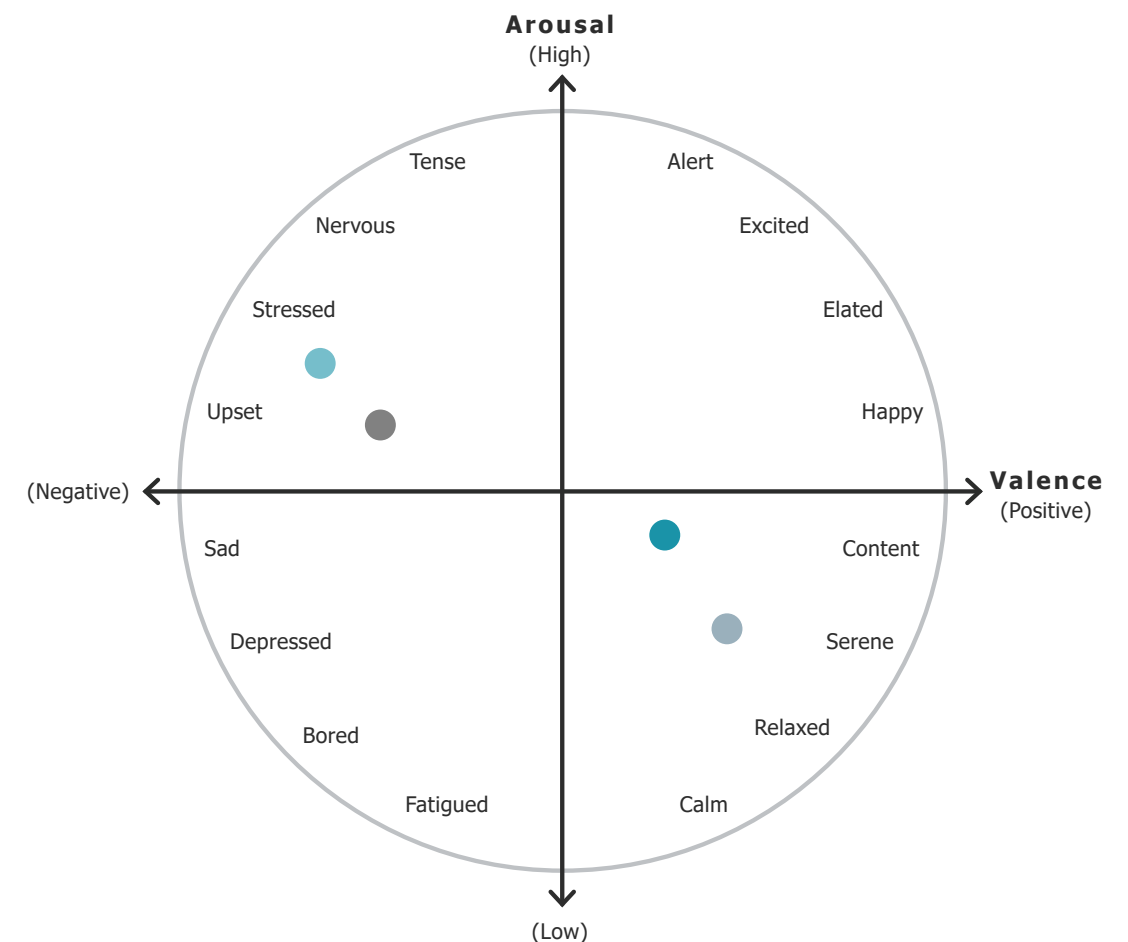
Participants in Group 3 were more stressed than other groups, while Groups 1 and 2 had a more pleasant experience.

a *surprising* summary

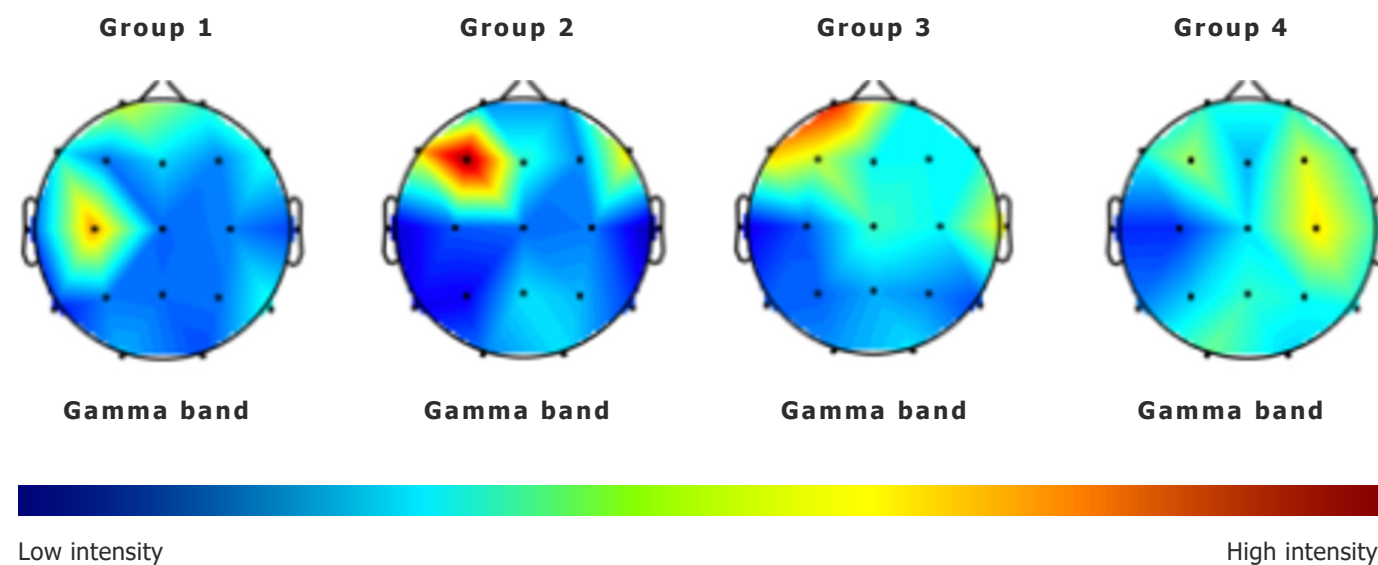Why did participants in Group 3 not enjoy the presentation?

A possible explanation is that by the time people were reminded of the summary and the key components of a message, they were also reminded of how much they had forgotten from what's considered critical information.

This is confirmed by the Eureka effect—a moment of realization—that was only exhibited by Group 3 during the summary slide.

A summary in a presentation, even though intuitively useful, might appear as an "aha moment" at the end, especially when there is no repetition or closure regarding the important points.

To participants in Group 3, seeing the summary at the end provoked a surprise reaction, as if they suddenly realized what was important.

Mean value for gamma frequency during the presentation

Group 1	Group 2	Group 3	Group 4

Gamma band	Gamma band	Gamma band	Gamma band

Low intensity — High intensity

Higher gamma frequency power for Group 3 indicates they experienced a Eureka effect at the end of the presentation.

repetition improves *memory*

When participants took a long-term memory test after 48 hours, the only group that showed superior and precise memory for the important concepts was Group 4.

For example, **participants in Group 4 showed 58 percent more precise memory for the main message compared to Group 3**.

Group 4 also showed better memory (42 percent) for understanding the problem presented, better memory (34 percent) regarding details related to the proposed software solution, and also better overall comprehension (29 percent) of the content.

Participants' memory answers also demonstrated that **only Group 4 could identify the three components that supported the main message with precision**. Twenty percent of the participants in Group 4 were able to state these supporting points verbatim. None of the participants in other groups achieved this level of precision.

So while the repeated cognitive closure may have seemed slightly unpleasant, Group 4 showed superior memory for critical concepts.

Taken together (the superior precise memory and the slightly negative state), researchers confirmed existing research that states learning something new can make people feel uneasy.

Memory results 48 hours after presentation

■ Group 1　■ Group 2　■ Group 3　■ Group 4

Total
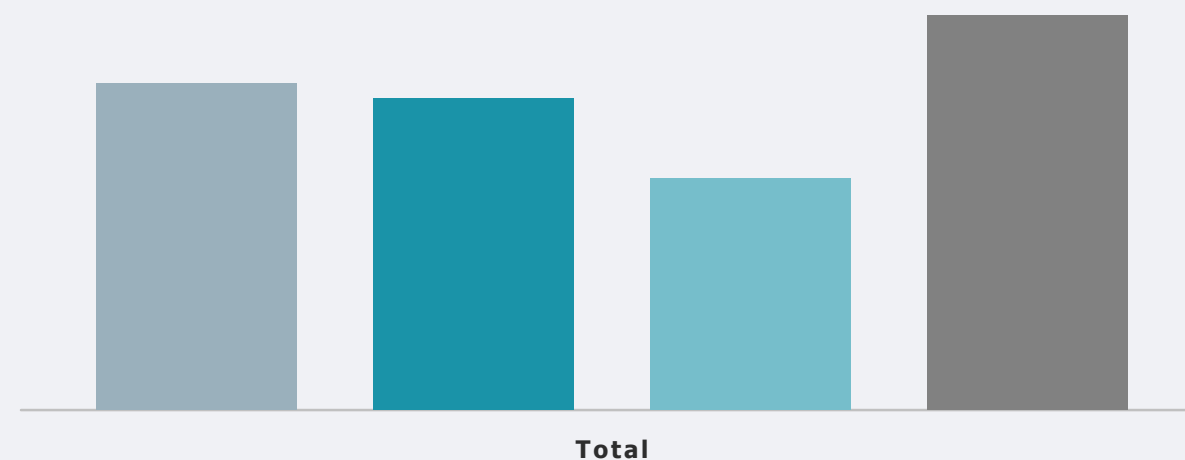
Group 4 remembered the important concepts better and more precisely than any other group.

reducing *fatigue*

In terms of cognitive variables, researchers noted that, overall, **the fluid presentation in Group 1 led to the highest fatigue, whereas Group 4, with repeated cognitive closure, experienced the lowest fatigue.**

This difference between groups was statistically significant, which confirms existing research. One of the benefits of cognitive closure is the ability to discontinue information processing—to stop looking for what's essential.

Despite feeling a slight unease, the repeated cognitive closure in Group 4 made participants feel the least tired.

With increased repetition, the brain does not have to exert extra cognitive energy as familiarity sets in. That, in turn, allows for more fluid processing and better comprehension of the message.

Cognitive variables during the presentation

■ Group 1   ■ Group 2   ■ Group 3   ■ Group 4
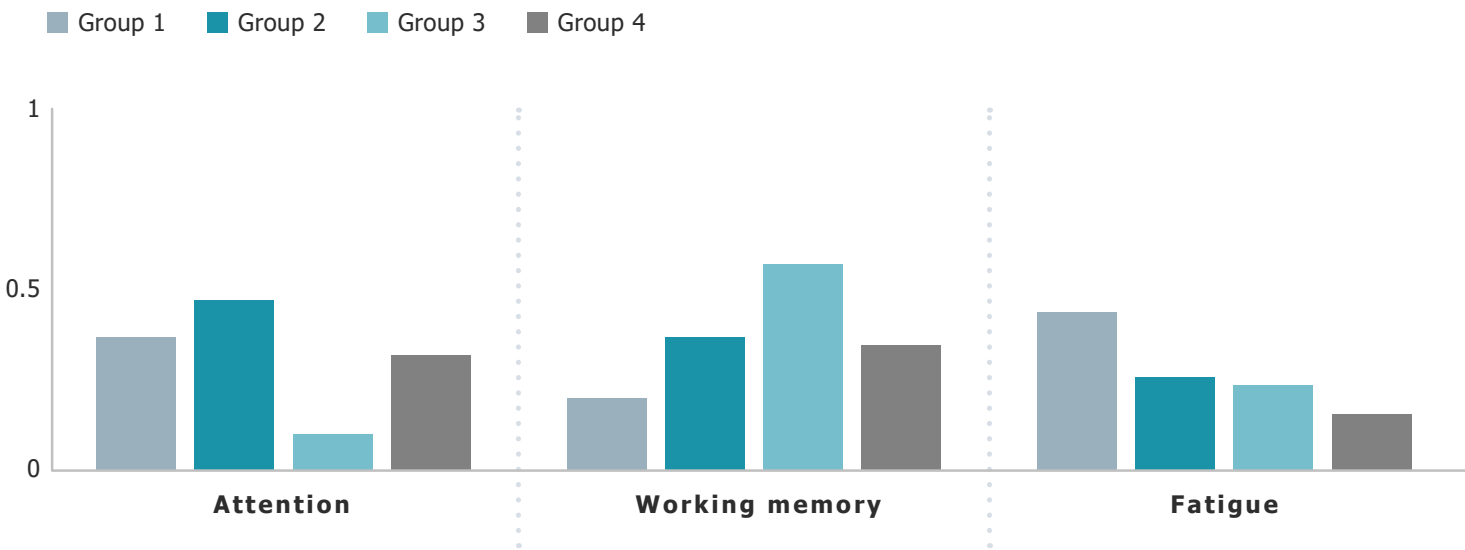
Participants in Group 3 exhibited lower attention than other groups.

Cognitive and affective variables for Groups 3 and 4 during the summary slide
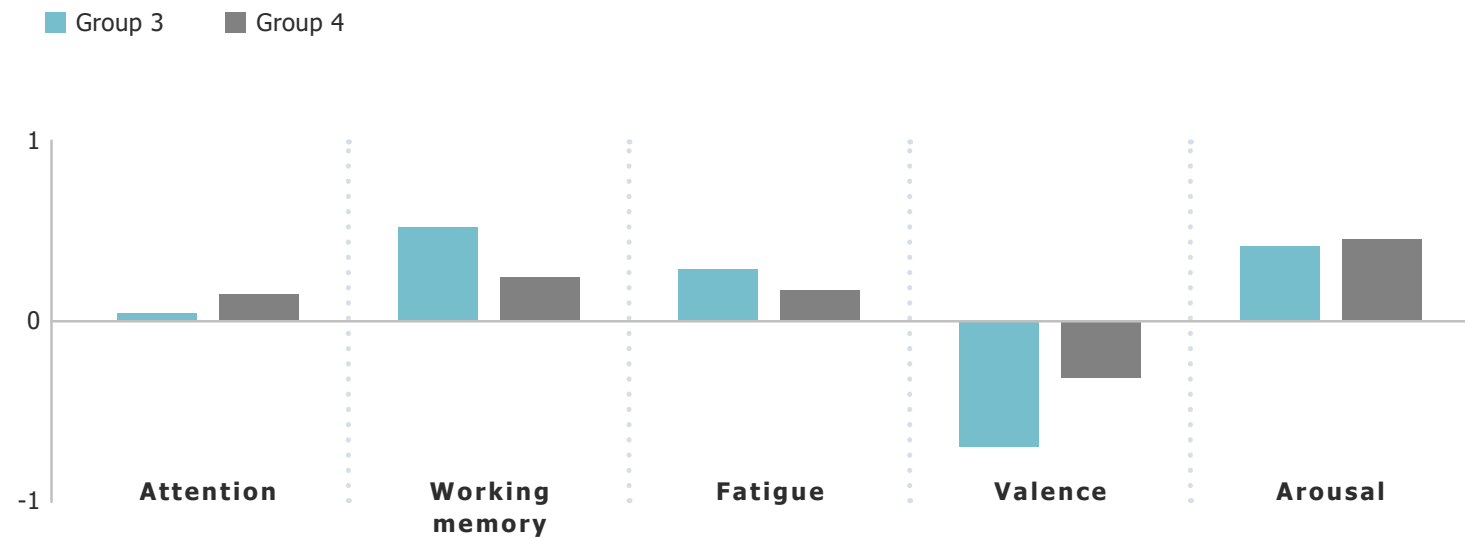
■ Group 3   ■ Group 4

During the summary slide, Group 3 was less attentive, had higher working memory, and was more fatigued than Group 4.

the design guides *focus*

Analyzing the eye-tracking data, researchers observed no differences in dwell time between the groups regarding the amount of attention directed toward the presenter vs. the presentation. **All participants' attention was directed mainly to the presentation**.

To command this type of attention, the presentation included elements we typically advocate in presentation design, such as explanatory (not decorative) visuals, succinct text, abundant animations, and annotations.

Because the presentation included these elements, participants' eyes were drawn systematically to specific content on the slides: First on the "what" of intent data in the middle of the screen, then on the "who," and finally on the "when."
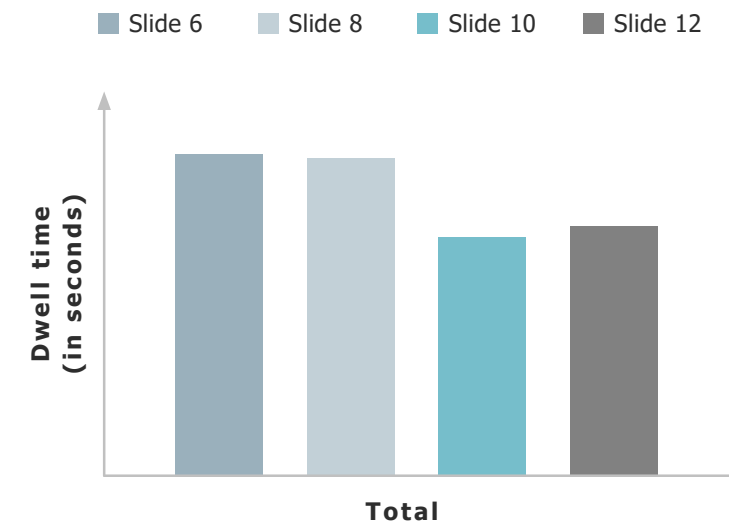

▶ **Watch eye tracking data from the Group 4 presentation**

Dwell time on the presentation and presenter

■ Presenter   ■ Presentation
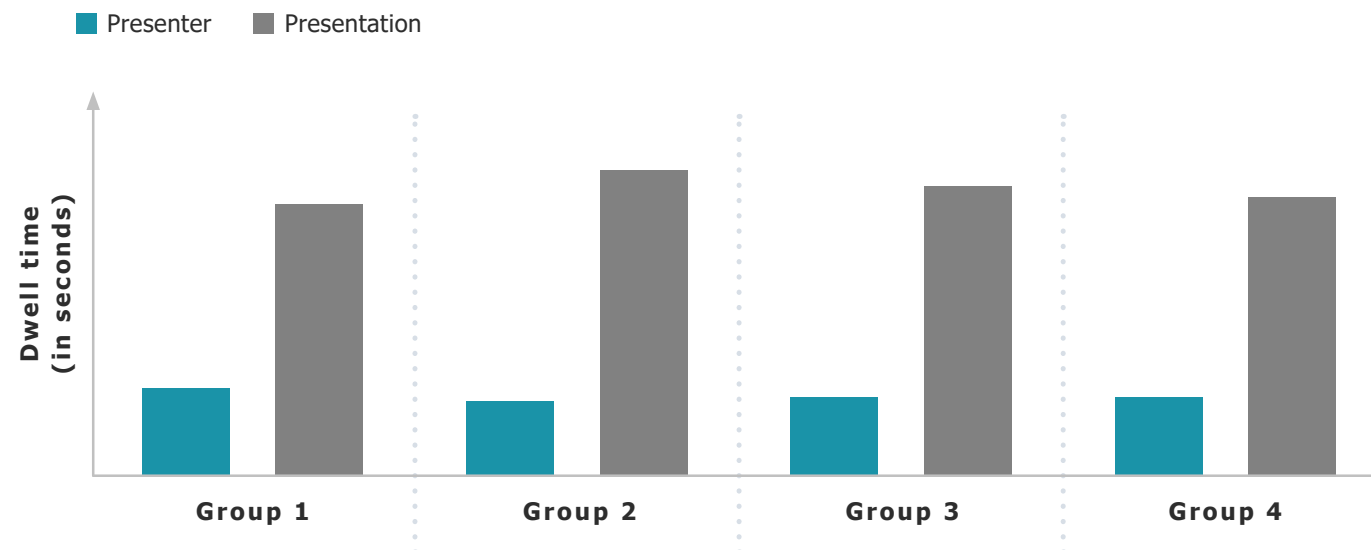
All groups focused their visual attention on the presentation and presenter for a similar amount of time.

Group 4 visual attention for closure slides

■ Slide 6   ■ Slide 8   ■ Slide 10   ■ Slide 12

Participants' attention to the closure slides decreased as familiarity increased with repetition.

build credibility

on virtual sales calls

Your sellers' ability to build credibility with buyers is critical. Without credibility, your prospects and customers might feel skeptical as to whether your solution can effectively meet their business goals.

The studies in this report offer several practical guidelines for virtual presentations. And they show that even simple changes to your presentations can make a big impact in making your sales pitch a success.

DON'T SPLIT THE PRESENTATION

Avoid assigning a presentation to two speakers, even if they have good presentation skills. If you must include a speaker with subpar skills, ask them to deliver the least important part of the presentation.

INVITE INTRODUCTIONS

Avoid having one person introduce every team member. Instead, invite attendees to introduce themselves one at a time, and keep introductions brief.

USE FREQUENT COGNITIVE CLOSURE

Avoid the T3 principle to content delivery. Frequent repetition throughout the presentation reduces stress and improves precision memory.

about B2B DecisionLabs

B2B DecisionLabs is the only advisory firm and membership community dedicated to helping marketing, sales, and customer success departments improve seller and buyer interactions to drive better commercial outcomes. B2B DecisionLabs offers science-backed insights, expert guidance, and field-ready tools through four dedicated research laboratories:

- **Behavioral studies** – to understand why buyers behave the way they do through fast, large-scale simulations.

- **Neuroscience research** – to observe what's going on inside buyers' brains using EEG, ECG, GSR, eye tracking, and facial analysis tools.

- **Field trials** – to optimize your digital selling initiatives by testing, tracking, and validating real-world customer interactions and outcomes.

- **Machine learning & sales analytics** – to transform unstructured sales data into useful insights and coaching opportunities using AI-powered technology.

CONTACT US TO LEARN MORE

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