

AMENDED Exhibit 1025

PLAINTIFFS' OMNIBUS OPPOSITION TO DEFENDANTS' MOTIONS FOR SUMMARY JUDGMENT

Case No.: 4:22-md-03047-YGR

MDL No. 3047

In Re: Social Media Adolescent Addiction/Personal Injury Products Liability Litigation

Produced in Native

Project VIBE: Classifier & Treatment

Mission: Fun, **Responsible**, Useful for teens

ENG:

TLM:

DS:

PM/T&S/ PgM:

go/vibe-classifier-treatment

Confidential & Proprietary



We have the Teens Quality team here today because we wanted to share progress on Project Vibe, which is content that in volume impacts teen wellbeing

What is VIBE

Volume Impacts well-Being (VIBE): Research shows that *repetition* of some content may affect teens' social and emotional development

For example, repeated exposure to...

Social comparison can be detrimental to teens' self-esteem & self-image.

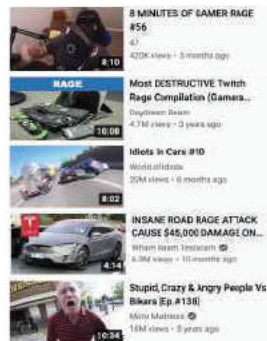
[American Psychological Association](#)



ATTORNEY-CLIENT PRIVILEGED

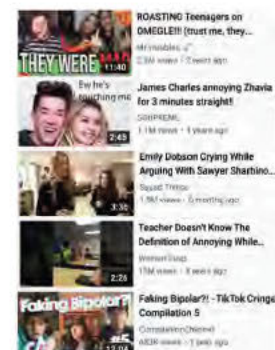
Social aggression can lead to increased risk of modeling unhealthy social behavior.

[American Academy of Child & Adolescent Psychiatry](#)



Antisocial behavior combined with negative mood can increase likelihood of antisocial conduct.

[National Library of Medicine](#)



I'll quickly recap the VIBE problem. Because of teens' unique developmental needs, research shows repetition of some content may affect their wellbeing. For example, social comparison, social aggression, and anti-social behavior.

So what is the repetition risk? Expert research has shown that the repetition of content with social comparison messages, social aggression, and antisocial behavior may affect teens' development.

Repeated exposure to social comparison, which is the pursuit of an idealized physical appearance, can be detrimental to teens' self-esteem, self-image, & well-being. Repeated exposure to social aggression, which is the display of real-world aggression, can lead to fear, desensitization, and in some teens, an increase in aggressive behaviors, and repeated exposure to antisocial behavior, which is the humiliation or mockery of others, can increase the likelihood of antisocial conduct in online communities.

As you can see in these panels on the visual, today this content can show up in our recommended feeds in high volume or concentration, repeating the same messages to teens.

Now I'll hand it off to Sharon to talk about our approach to this problem.

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On the slide, we're showing Watch Next panels with high proportion of these videos.

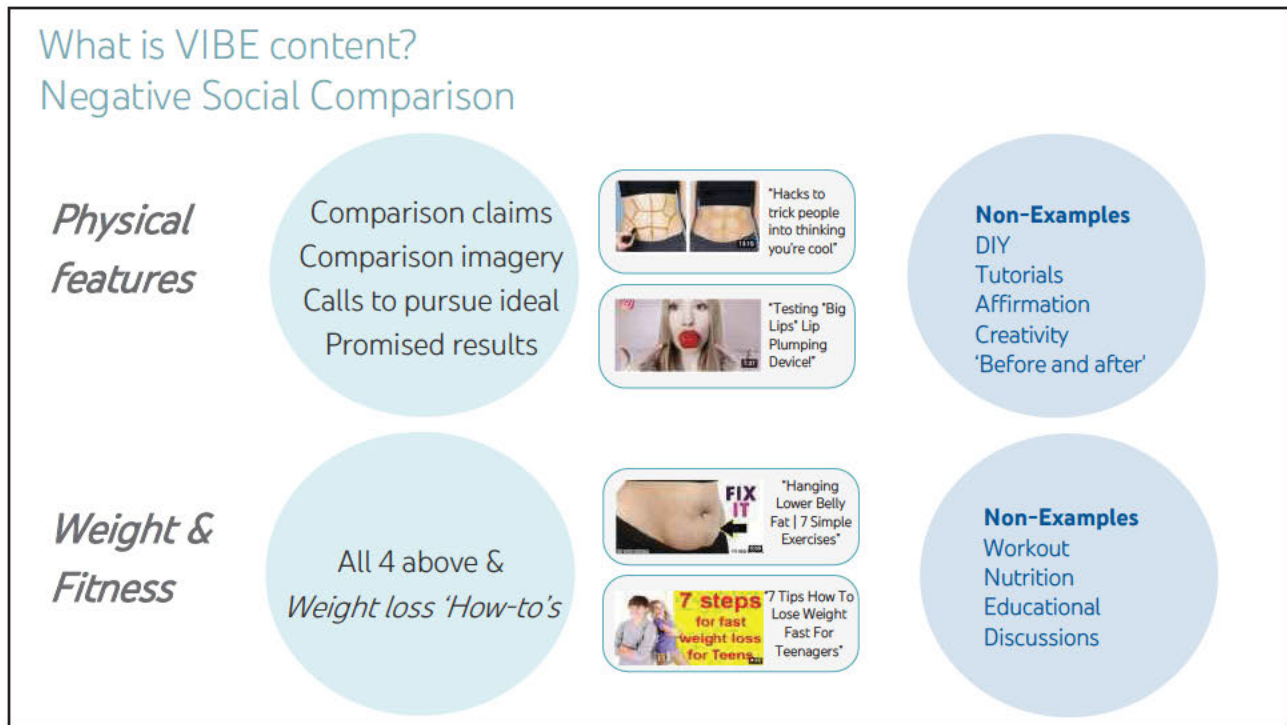
A key point we want to make here is that this is a problem of volume or repetition, and individually, or even a few of these videos may be OK.

Antisocial behavior:

Source: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5791909/>

In online communities, antisocial behavior such as trolling disrupts constructive discussion. While prior work suggests that trolling behavior is confined to a vocal and antisocial minority, we demonstrate that ordinary people can engage in such behavior as well. We propose two primary trigger mechanisms: the individual's mood, and the surrounding context of a discussion (e.g., exposure to prior trolling behavior). Through an experiment simulating an online discussion, we find that both negative mood and seeing troll posts by others significantly increases the probability of a user trolling, and together double this probability...This analysis reveals temporal mood effects, and explores long range patterns of repeated exposure to trolling.

Antisocial behavior online can be seen as an extension of similar behavior offline, and includes acts of aggression, harassment, and bullying [1, 43]. Online antisocial behavior increases anger and sadness [58], and threatens social and emotional development in adolescents [70]. In fact, the pain of verbal or social aggression may also linger longer than that of physical aggression [16].



We started by defining negative social comparison, which has 2 parts to it: comparison of physical features through these 4 attributes, and comparison of weight & fitness, which includes the 4 above and also weight loss how-tos.

Real-world Social Aggression

Displays real-world physical intimidation or verbal
altercation in confrontational situations with no EDSA*
Problematic in volume

Real-world
Physical Intimidation
Verbal Altercation
Not EDSA



Throwing
objects at
other
students in
class



Park
altercation
amongst
teens

Non-Examples

EDSA
Political/ Social Justice
Protests, Rallies
Movies/ Scripted shows
Video Game/ Animated

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*EDSA = In an educational, documentary, scientific, or artistic context

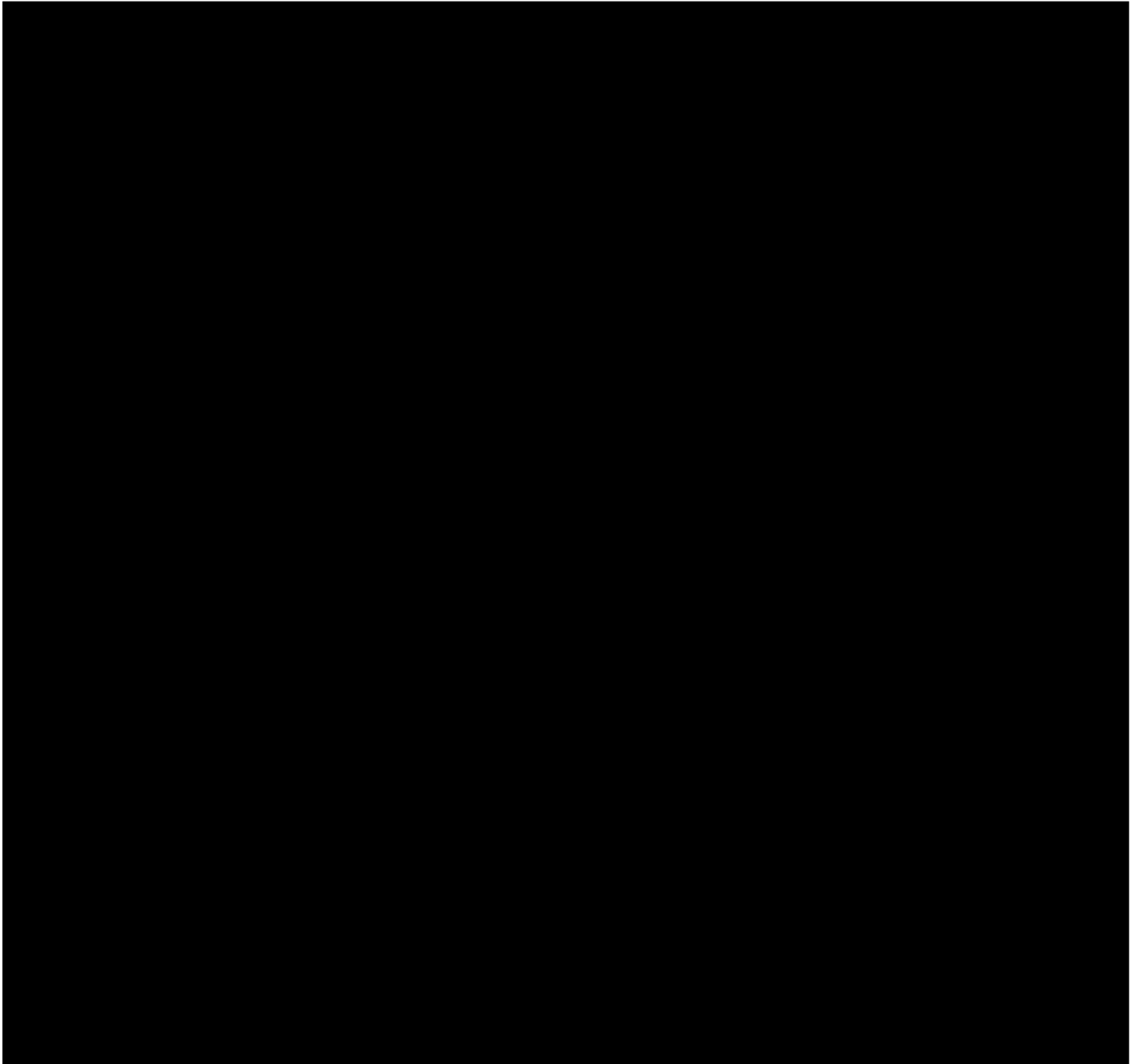
The second category we've defined is real-world social aggression. It's content that displays real-world physical intimidation or verbal altercation in confrontational situations with no EDSA. We discussed this category's definition and examples last month in this forum, and the ask was to follow up when we have some model and treatment results.

Rating Template for Ground Truth of Social Comparison			
1. Read definition in instructions		3. Select attributes in priming questions	
2. Look at non-examples, examples, & explanations			4. Answer on the slider the degree of social comparison

les,

ee

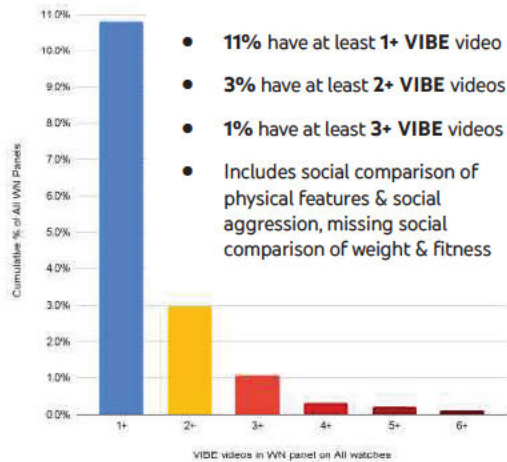
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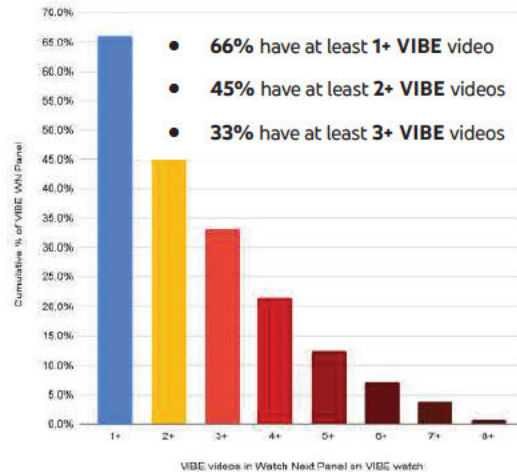
Metric Goals

VIBE WN concentration from ALL watches [Human-eval]

Panel = Top 8 - 10 videos in Watch Next



VIBE WN concentration from VIBE watches [Human-eval]



And we see this reflected in our human evals of Watch Next panels. On the left, we took a sample of WN panels and sent the top 1 videos from each panel to be rated. We counted all panels with at least 8 videos rated. Here is the distribution.

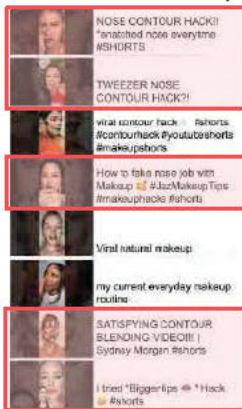


However, when the watch video is Vibe, we see that the panel concentration is much higher.

What does high volume or concentration look like according to Owls?

Social Comparison of Physical Features

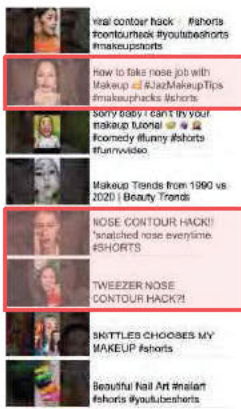
Consensus is too many



5 out of 8

All Owls said this volume was too much

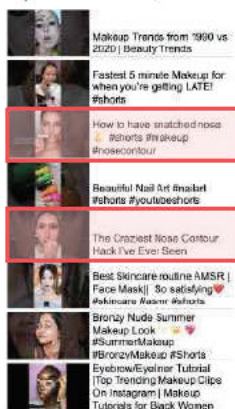
Consensus is still too many



3 out of 8

Many of the Owls said that the volume was too different between the first feed and the second, but the same social comparison message

Split feedback, some okay



2 out of 8

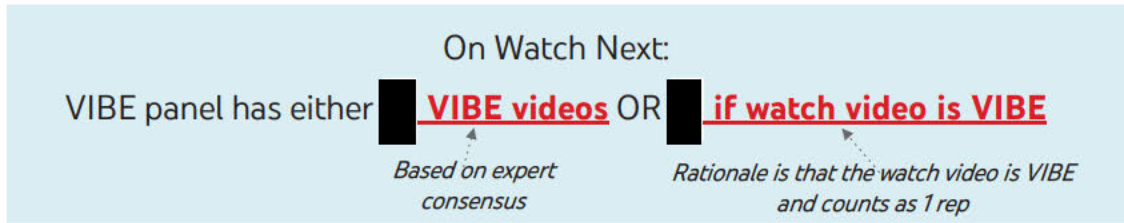
Owls' responses were split, some of them thought it was cute while some thought it was slightly negative

We asked the Owls for their feedback on these 4 feeds.

- 1) What would teens and tweens take away from watching these videos
- 2) How would the videos affect their wellbeing
- 3) Would the effect be more, less, or the same, if they didn't watch the video but just saw the thumbnail and title
- 4) What plays a bigger role in the effect of this content, the amount of time spent watching, the fraction of time spent watching, or the number of repeated messages

Goal: Reduce amount of VIBE-concentrated panels in Watch Next

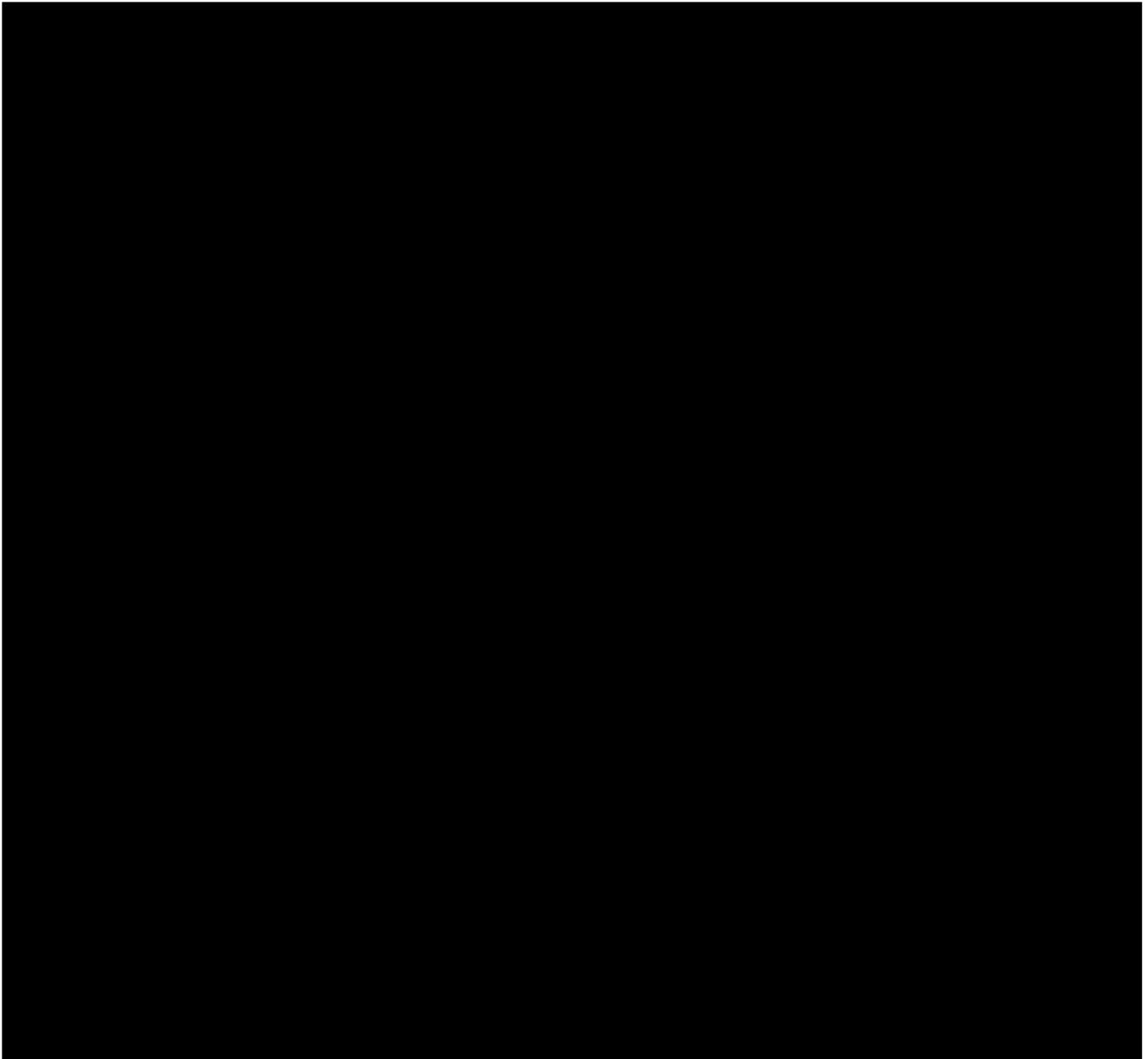
Human evaluated metric: % of VIBE panels

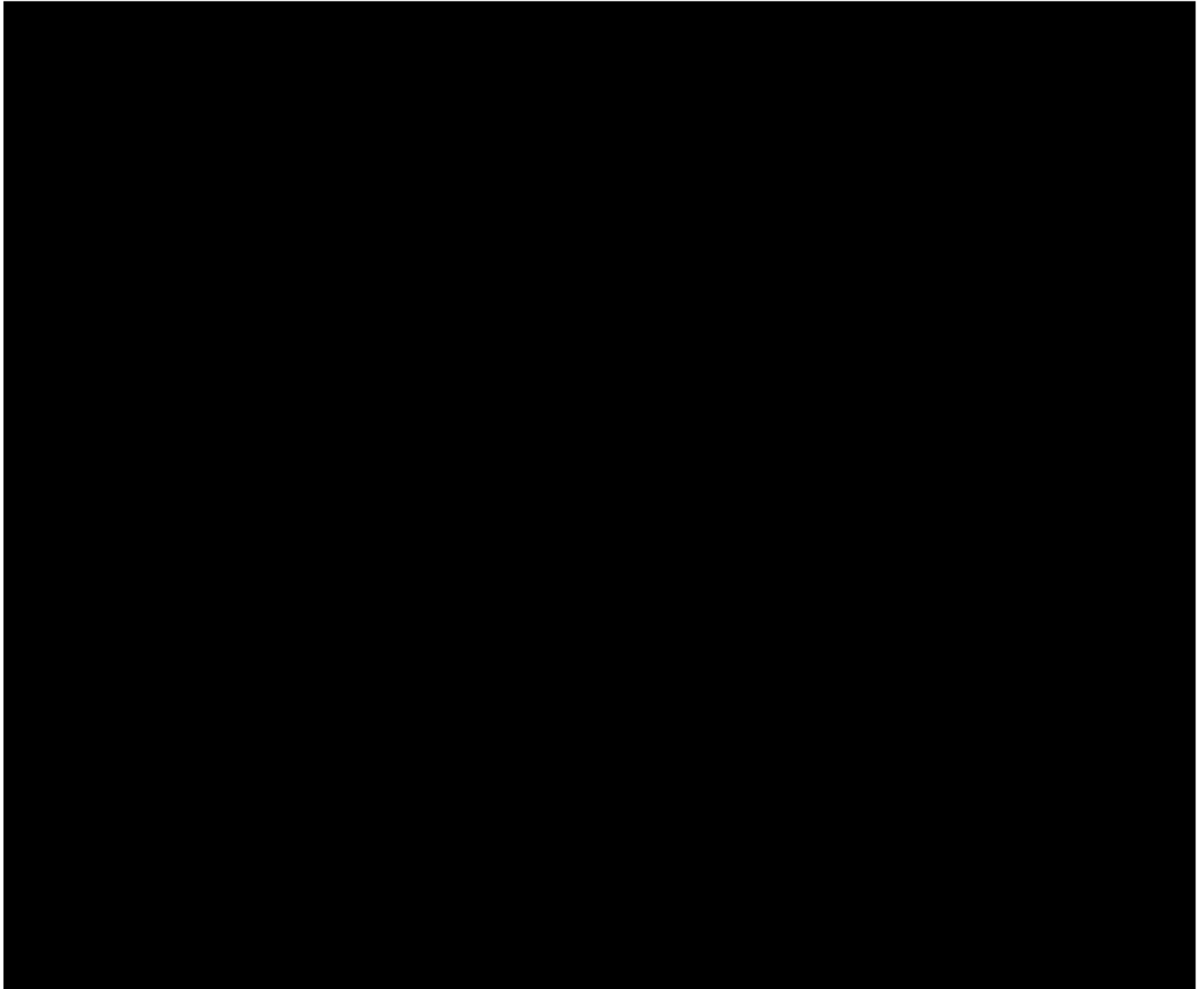


Control base rate:  of VIBE WatchNext panels

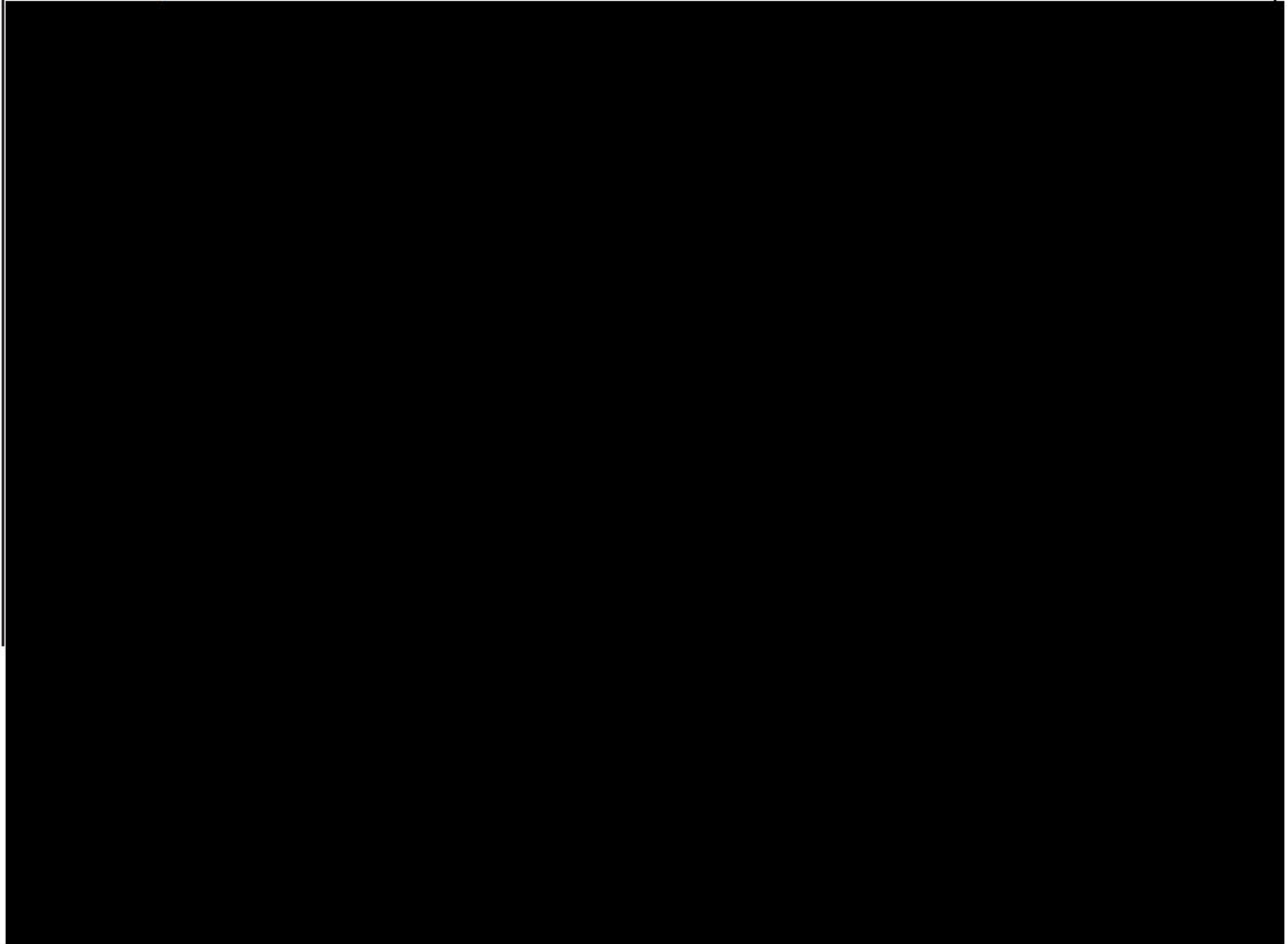
OFFLINE EVAL: Baseline Control

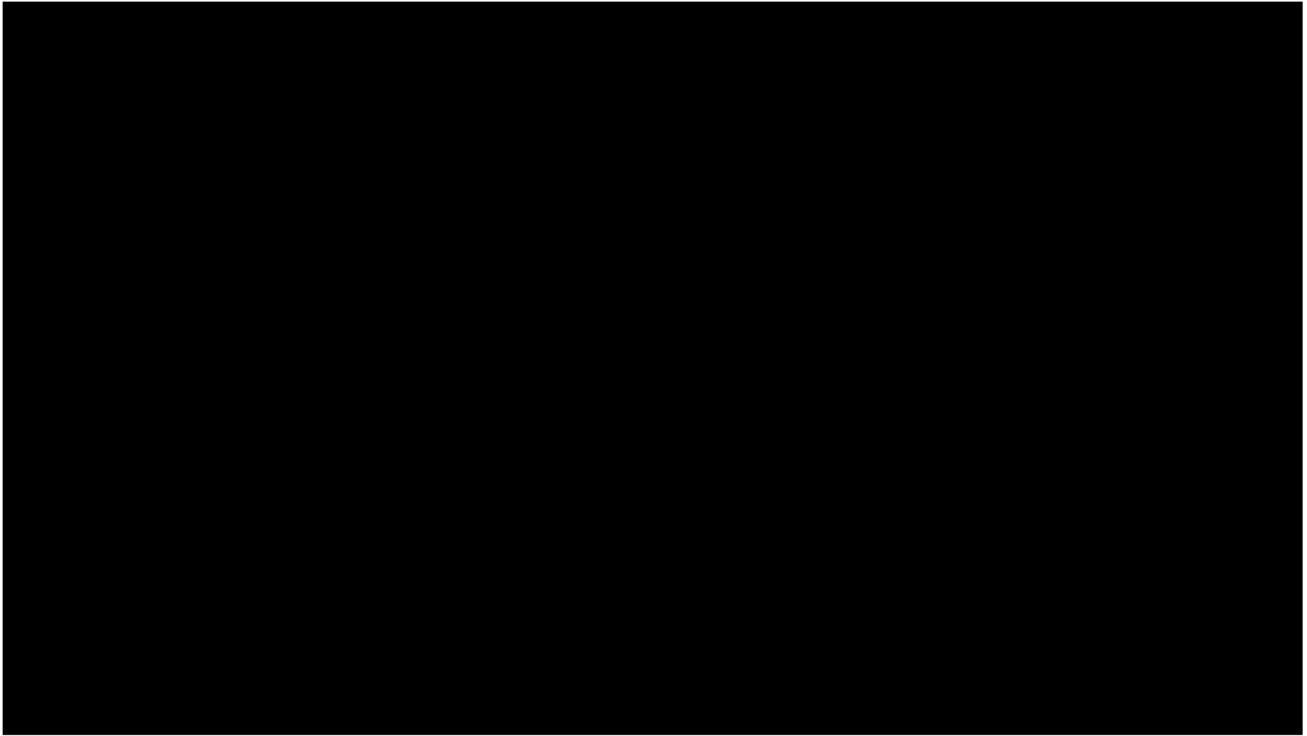
Treatment Experiments





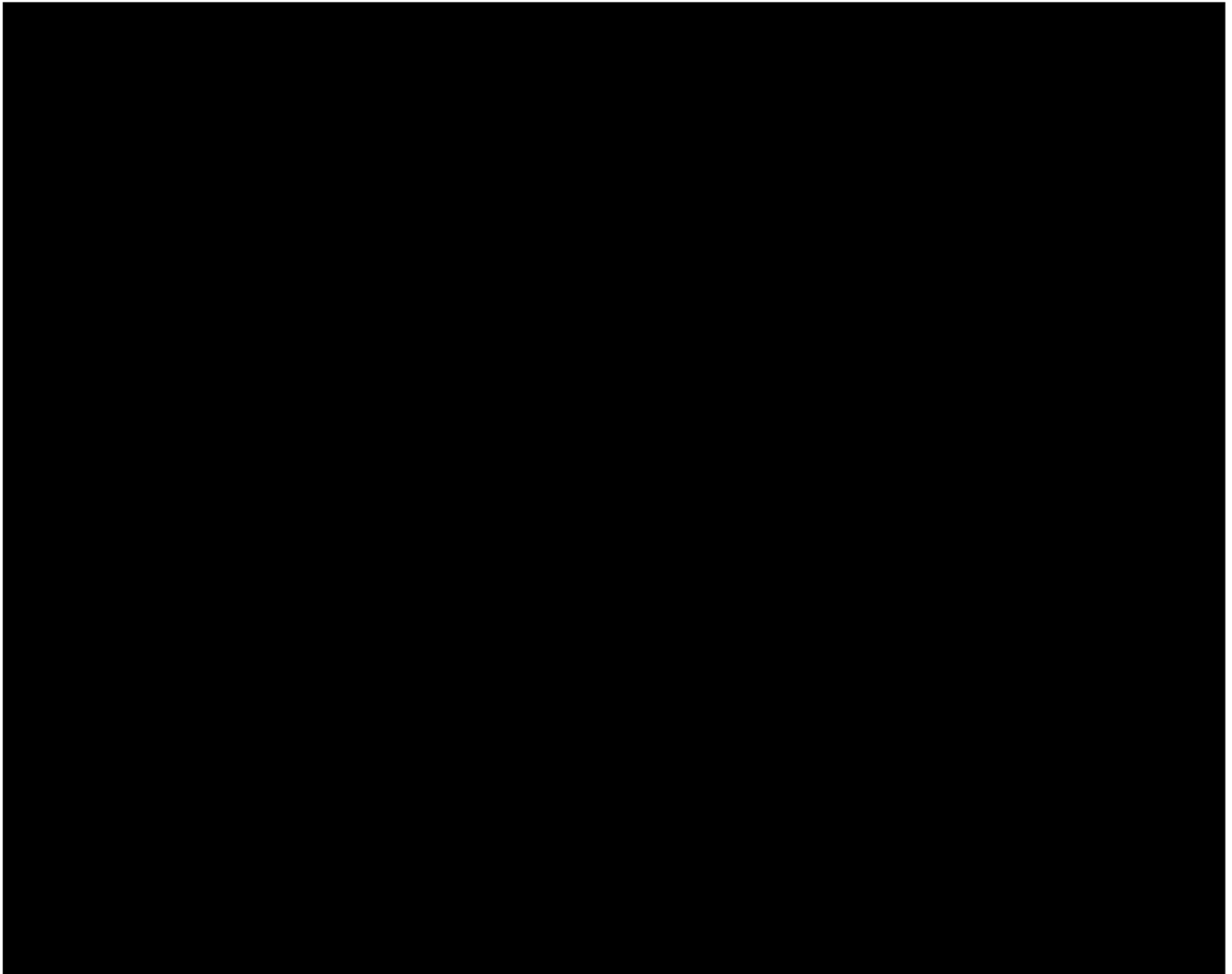
Examples of videos at different model scores



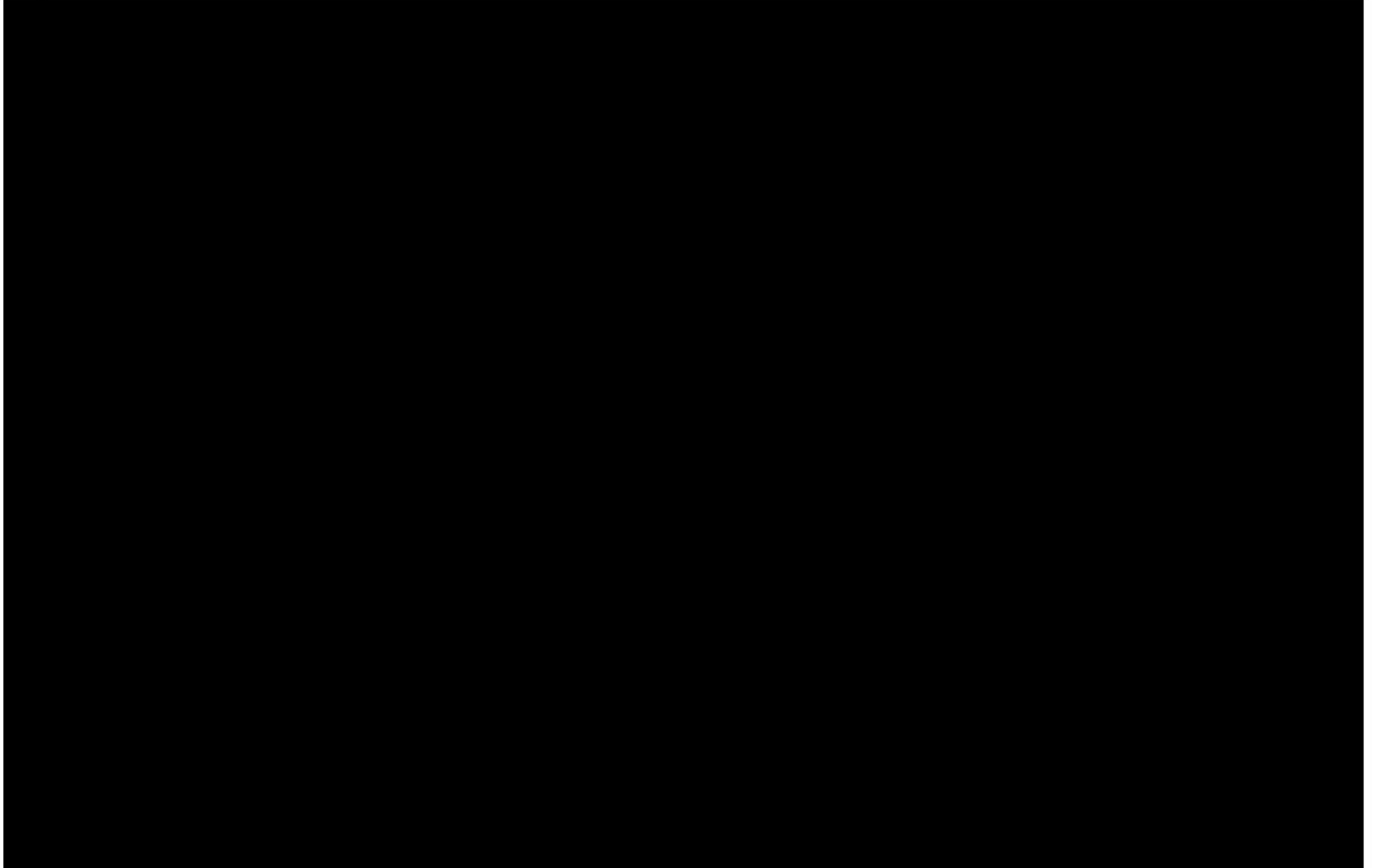


Model

[Launch Doc](#)

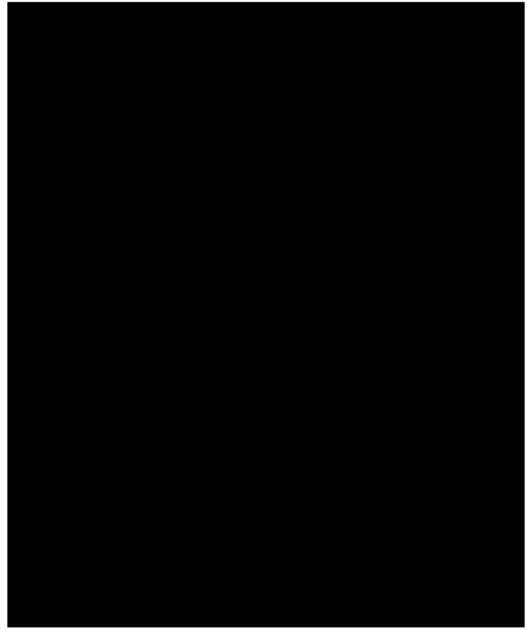


Training Label Distribution



Model Prediction Distribution

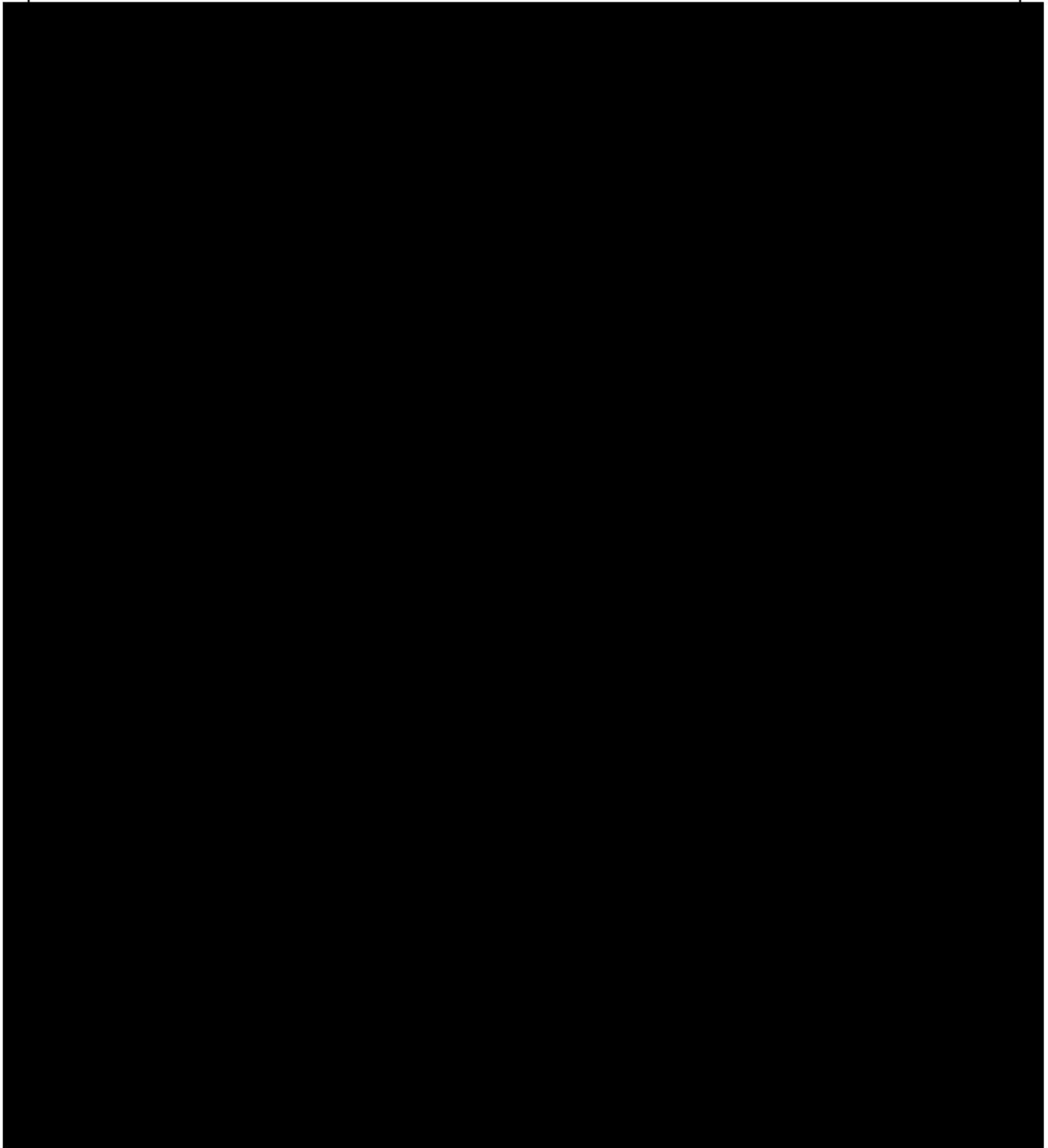
i [REDACTED]
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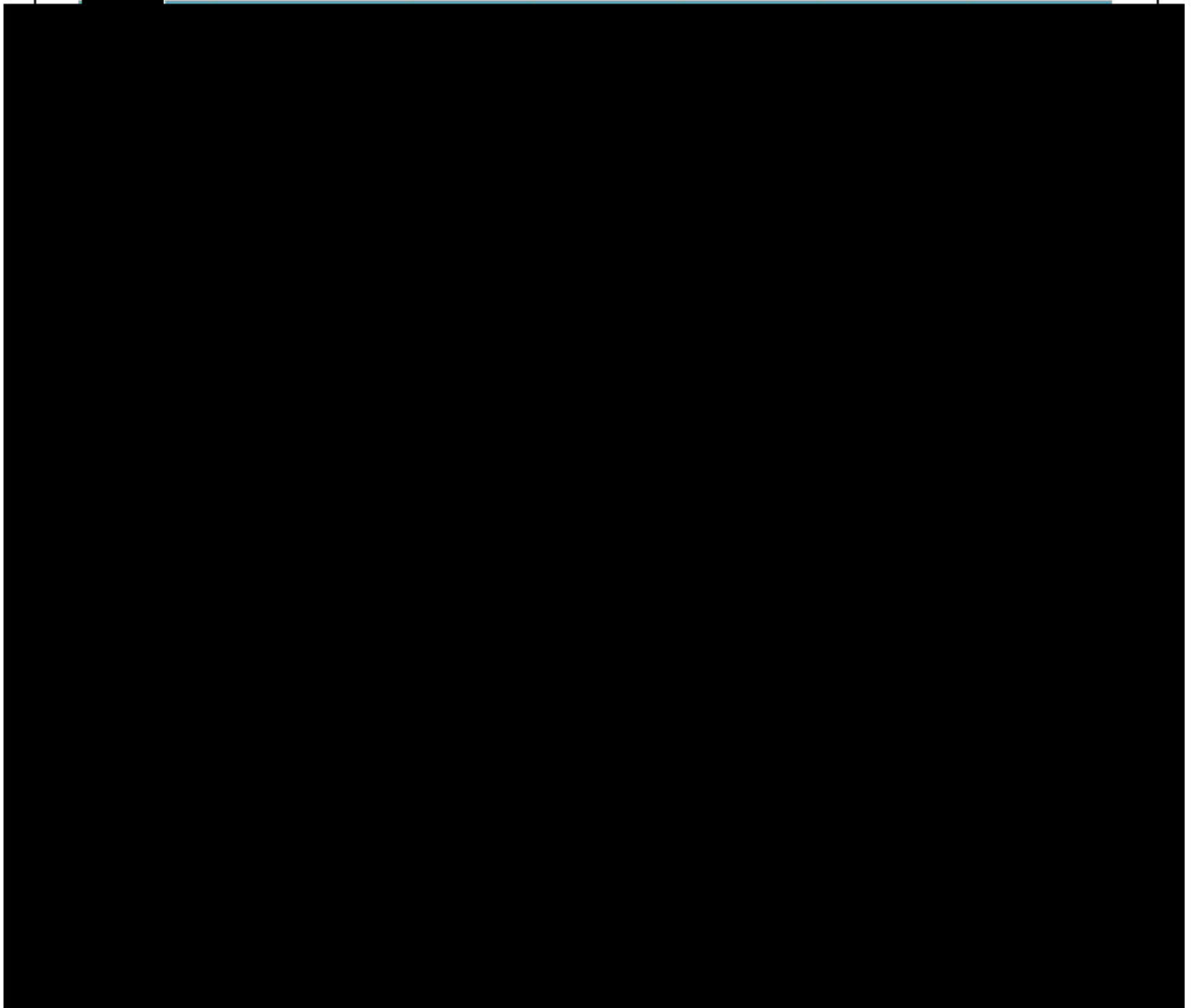
[REDACTED]



Model Prediction Wins & Misses



Model Evaluation:



Example-based Explanations

[REDACTED]

[REDACTED]

GTM

GTM CommDoc

Appendix