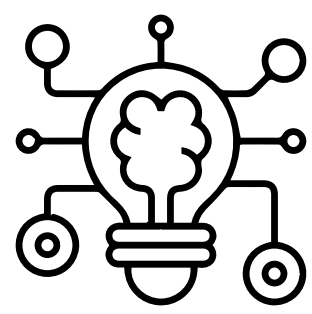
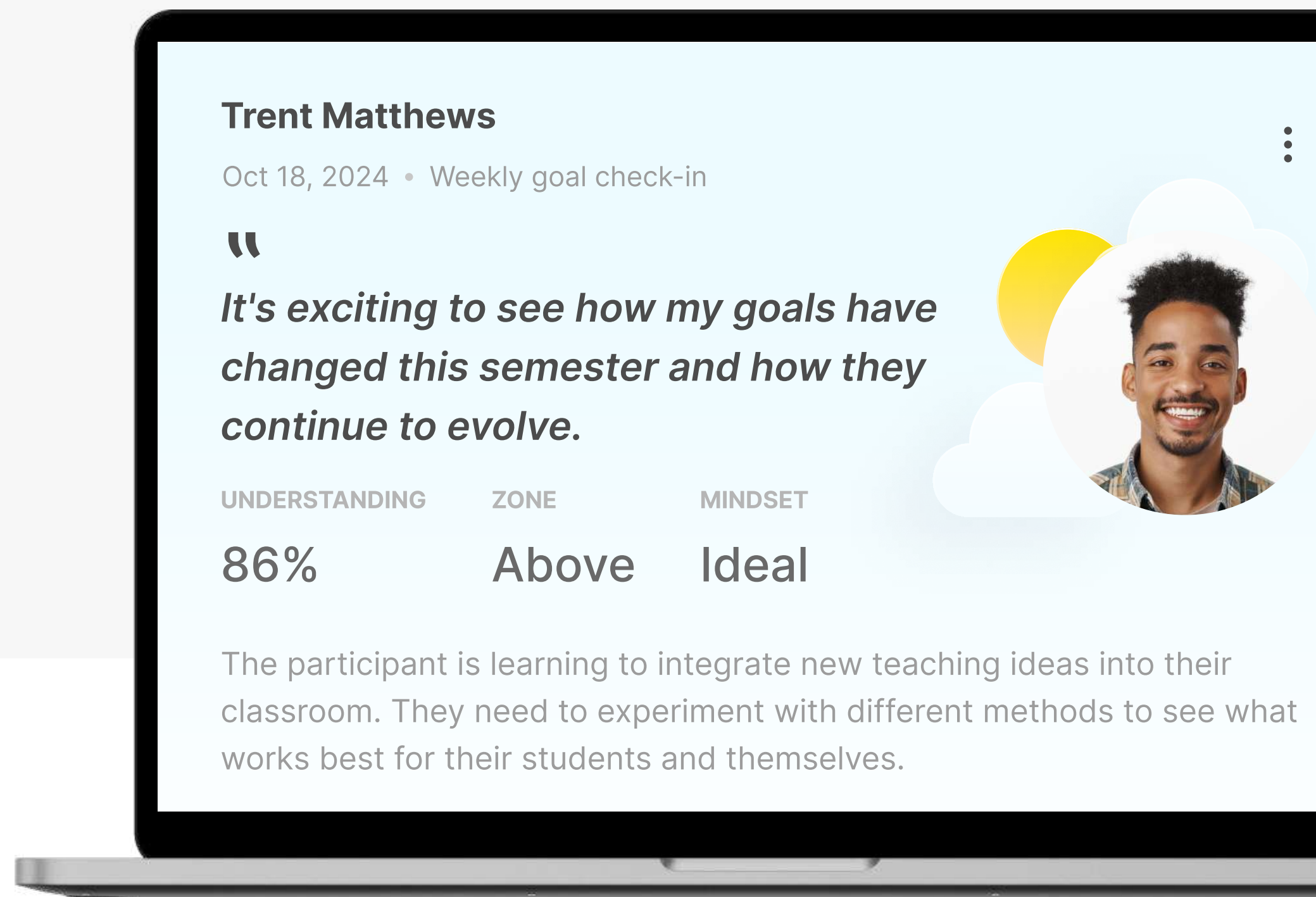


# Decoding MirrorTalk:

The science behind the scores



## Understanding

Swivl used [Jean Piaget's Constructivism Theory](#) and [Robert Kegan's Subject-Object Theory](#) to develop the Understanding score.

MirrorTalk's Understanding Score begins at 51% to acknowledge that all learners start with some understanding while encouraging continued engagement and improvement.

### SCORE

### MEANING

**51-70%**

The learner attempts to engage with the learning experience, but it is vague, incomplete, or loosely connected to the learning objective. Limited recall, minimal meaning-building, and few or no clear insights are evident.

**71-80%**

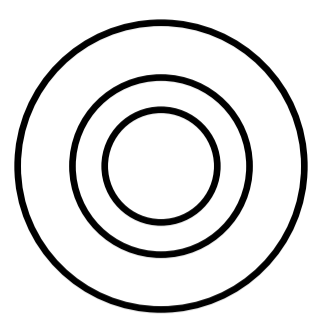
The learner includes 1-2 specific details from the learning experience with some connection to the objective. There are attempts to build meaning and generate insights, though these may be incomplete or loosely connected.

**81-90%**

The learner provides 2 or more specific details, builds meaning from the experience, and makes at least one clear connection to the learning objective. An insight or intellectual shift is evident and connected to the experience.

**91-100%**

The learner comprehensively recalls multiple significant details, builds strong meaning, and makes multiple relevant connections to the learning objective. Profound insights or intellectual shifts demonstrate exceptional understanding and development.



## Zone

Swivl used [Zone of Proximal Development \(ZPD\)](#) and [Yerkes-Dodson Law](#) to develop the Zone score.

### SCORE

### MEANING

#### Below

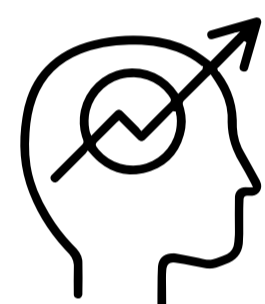
Activities are not challenging enough, or the learner is notably disengaged. The learner needs more demanding tasks or increased motivation to fully engage with the material. This zone may result in boredom or lack of progress.

#### Ideal

Activities are appropriately challenging and supportive for the learner's current level. Learners are engaged and capable of their best learning and productivity. This zone promotes growth and optimal learning experiences.

#### Above

Activities are excessively challenging, or the learner is overly stressed or anxious. The learner needs additional support, scaffolding, or stress management to effectively engage with the material. This zone may lead to frustration or overwhelm if not addressed.



## Mindset

Swivl used [Carol Dweck's research](#) on mindset to develop the Mindset score.

### SCORE

### MEANING

#### Fixed

Demonstrates a fixed mindset, negative attitudes towards learning and challenges.

#### Neutral

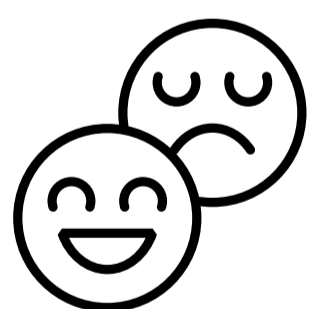
Shows a mix of fixed and growth mindset characteristics.

#### Growth

Demonstrates a strong growth mindset, positive attitudes towards learning and challenges.

#### Above

Overly positive attitude that may inhibit realistic self-assessment and learning.



## Tone

Swivl used [Carol Dweck's research](#) on how language affects learning to develop the Tone score.

### SCORE

### MEANING

#### Negative

Uses language indicating frustration, disengagement, or pessimism.

#### Neutral

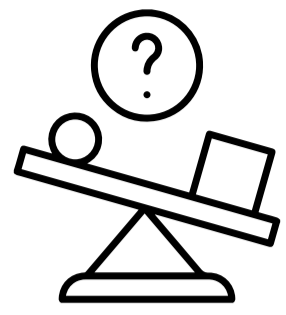
Uses balanced language without strong positive or negative sentiment.

#### Positive

Uses language indicating enthusiasm, engagement, and optimism.

#### Above

Uses language indicating excessive positivity, in cases like sarcasm, superficiality, or delusion.



# Cognitive bias

While there are dozens of cognitive biases with generally agreed upon definitions, Swivl identified and used the biases that are most likely to appear in spoken reflections.

## BIAS

## MEANING

### Confirmation

The tendency to search for, interpret, and remember information in a way that confirms one's preconceptions, while giving less consideration to information that contradicts them.

### Halo Effect

The tendency to allow one's overall impression of a person or entity (often based on one positive trait) to influence judgments about unrelated characteristics, leading to a skewed perception.

### Fundamental attribution error

The tendency to overemphasize personal characteristics and underestimate situational factors when explaining someone else's behavior, while often doing the opposite for one's own behavior.

### Sunk cost fallacy

The tendency to continue investing in a project, decision, or course of action, despite it no longer being beneficial, because of the time, money, or effort already invested.

### Anchoring

The tendency to rely heavily on the first piece of information encountered (the "anchor") when making decisions, even if that information is irrelevant or insufficient.

### Recency

The tendency to give greater weight to recent events or information than earlier data, even if the earlier information is more relevant or significant.

### Negativity

The tendency to focus on, remember, and give more importance to negative events or information over positive ones.

### In-group

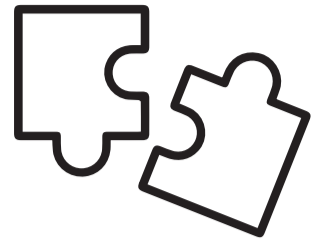
The tendency to favor and prioritize the opinions, actions, or preferences of one's own group over those of outsiders, leading to biased decisions and actions.

### Status Quo

The preference for maintaining the current state of affairs and resisting change, even when change might be beneficial.

### Overconfidence

The tendency to overestimate one's knowledge, abilities, or control over situations, often leading to excessive risk-taking or flawed decision-making.



## Hidden lesson

Swivl used Robert Kegan's Levels of Consciousness and Subject-Object Theories to develop the Hidden Lesson.

- MirrorTalk analyzes the learner's grade level and reflection to estimate their current developmental stage (Order of Mind). It then identifies key challenges and growth opportunities relevant to their stage and the experience they're reflecting on.
- Based on this analysis, MirrorTalk provides a key insight to help the learner navigate their current developmental stage and progress towards the next stage at an appropriate pace.
- Hidden Lessons highlight important aspects of the learner's Understanding, Mindset, and Zone, connecting these to their developmental stage and offering guidance on how to apply and benefit from these lessons.



## Order of mind

Swivl used Robert Kegan's Levels of Consciousness to develop the Order of Mind.

### ORDER OF MIND

#### **Impulsive**

### MEANING

The learner is controlled by their impulses and perceptions, with little ability to control reflexes or construct a persistent reality.

#### **Instrumental**

The learner can classify and generalize, control impulses to some degree, but is primarily self-centered and unable to consider others' perspectives fully.

#### **Socialized**

The learner can internalize and operate within societal norms, consider others' feelings, and be part of something larger than themselves.

#### **Self-authoring**

The learner can take perspective on relationships and societal expectations, create their own ideologies, and mediate between their own and others' expectations.

#### **Self-transforming**

The learner can see beyond their own ideology, recognize the limits of their own inner system, and understand the fluidity and interdependence of systems.