

## **How did Whisper handle Partner 1 vs Partner 2 audio?**

### **Partner 1. Pedro**

#### **Whisper transcription**

Effective AI marketing in 2026 is no longer about using as many tools as possible or blindly automating everything. It's about building a smart, adaptive system that can only understand people and respond to their real needs. At its core, effective AI marketing combines data, strategy, and human insight. AI helps marketers analyze customer behavior in real time, predict intent, and personalize communication at scale. However, the key difference in 2026 is that AI is used to support decision-making, not replace it. The strongest brands use AI to test hypotheses faster, optimize content, and improve customer experience, while humans remain responsible for strategy, ethics, and creativity.

#### **ground truth transcription**

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For **Partner 1**, Whisper produced a very clean, well-structured transcription with only minor wording differences compared to the ground truth. Most differences were small substitutions like “it’s” instead of “it is” or slight sentence restructuring. Overall, the meaning was preserved almost perfectly.

### **Partner 2. Artem**

#### **Whisper transcription**

When you exercise for a long time you might hit a physical limit often called the wall. This isn't just your mind getting tired, it's a literal fuel crisis happening inside your cells. Your body carries two main types of energy, fat and glycogen. Think of fat as a giant, slow-burning log on a fire, while glycogen is like quick-burning kindling. Your body only stores a small amount of the fast-acting glycogen, and once it runs out, usually after about two hours of hard work, your system starts to panic. Your brain actually sends signals to shut your muscles down to save energy, making your leg feels like lead and your energy vanish instantly. To beat this, athletes train

## ground truth transcription

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For **Partner 2**, Whisper also performed strongly, but the transcription showed more sensitivity to grammatical details (for example, “leg feels like lead” instead of “legs feel like lead”). The transcription stopped at the same point as the ground truth, so there were no truncation issues, but minor grammatical errors appeared.

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## Compare accuracy between your audio and your partner's audio

### Which transcription was more accurate overall?

Partner 2's audio achieved **higher measured accuracy** with a **WER of 1.68% (98.32% accuracy)**.

Partner 1's transcription was described qualitatively as ~94%+ accurate, which is still excellent but slightly lower than Partner 2's result.

So, **Partner 2 had better raw accuracy**, while **Partner 1 still fell into the “excellent” ASR range**.

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## Note any differences in how Whisper handled different voices

### Did Whisper treat the two voices differently?

Yes, subtly. Partner 1's audio appears to be more **concept-heavy and abstract**, which led to more **semantic substitutions** (e.g., “genuinely understand” vs “can only understand”). Partner 2's audio was more **narrative and physiological**, and Whisper mostly struggled with **grammar and plurality**, not meaning.

This suggests Whisper handles **clear, explanatory speech** extremely well, but **abstract phrasing and pacing** can slightly affect wording.

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## Compare WER results

## Which audio had better accuracy, and why?

Partner 2's audio had better accuracy (WER 1.68%). Likely reasons:

- Clear pacing
- Concrete vocabulary
- Fewer abstract constructions
- Short, direct sentence structures

Partner 1's slightly lower accuracy can be explained by:

- Conceptual marketing language
  - More complex sentence flow
  - Higher sensitivity to stylistic nuance
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## Are there patterns in the types of errors Whisper makes?

### What kinds of mistakes were most common?

Across both partners, Whisper errors followed clear patterns:

- **Substitutions** were the most common (similar-sounding or stylistic alternatives)
- **Very few deletions**
- **Almost no insertions**
- Errors rarely changed the **core meaning**

This shows Whisper is **semantically reliable**, even when it's not word-perfect.

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## Compare cost analyses

### Were the cost calculations similar?

Yes. Costs scaled **linearly with duration** for both partners.

For Partner 2 specifically:

- Audio length: **50.58 seconds (0.843 minutes)**
- Cost at **\$0.006 per minute: \$0.005058 USD**

Both partners used the same pricing model, and both confirmed Whisper is **extremely cheap for short-to-medium audio**.

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## Discuss cost optimization strategies

## How can Whisper costs be optimized?

Several strategies emerged:

- Keep audio clean to avoid reprocessing
  - Chunk long audio files
  - Avoid unnecessary retranscriptions
  - Use Whisper-1 for clean audio, higher-tier models only for noisy or accented speech
  - **We also wrote custom Python code that automatically calculates transcription cost based on exact audio duration in seconds**, which makes budgeting and scaling much easier
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## Create a pair comparison summary

### Any interesting patterns or surprises?

Yes — despite very different topics and speaking styles, Whisper remained **highly consistent**. The biggest surprise was how **low the cost** is compared to the quality delivered. Another notable point is that **accuracy stayed high even when audio clarity was not perfect**.

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## Discuss Whisper's strengths and weaknesses

### What did Whisper do well, and where does it struggle?

#### Strengths:

- Very high accuracy (94–98% range)
- Strong semantic understanding
- Excellent cost-efficiency
- Fast processing
- Handles both technical and narrative speech well

#### Weaknesses:

- Minor grammatical inconsistencies
  - Sensitive to pacing and abstract phrasing
  - Not fully “brand-voice ready” without human review
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## Provide joint recommendations

## Would you recommend Whisper for production use? Why or why not?

Yes, absolutely — with conditions.

Whisper is **production-ready** for:

- Internal documentation
- Draft content
- Educational materials
- Short to medium recordings

For public-facing or brand-critical content, a **human-in-the-loop review** is recommended.

Given the combination of **high accuracy, predictable costs, and easy automation**,

Whisper is a strong choice for real-world deployment.