

GROUP 2025

# **Conversate:** Supporting Reflective Learning in Interview Practice Through Interactive Simulation and Dialogic Feedback

Taufiq Daryanto, Xiaohan Ding, Lance Wilhelm, Sophia Stil, Kirk Knutsen, Eugenia Rho



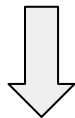
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## Introduction

# Job Interview Practice

Research has shown that mock interviews can prepare candidates better (Huss et al., 2017).

However, not all individuals have access to career counselors for mock interview settings.

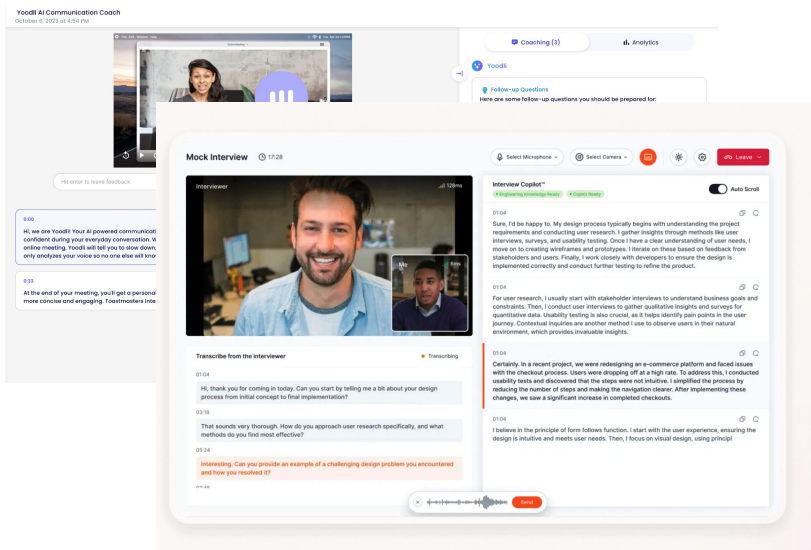


To address this challenge, both industry and academia have begun to explore the potential of AI to facilitate interview practice

# Introduction

## Trends in Leveraging LLM for Interview Practice

Tech companies have developed LLM-based interview practice systems to support interview simulations and provide feedback



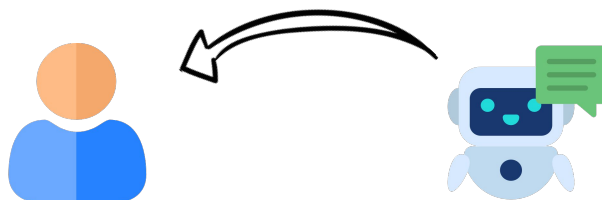
“However, there is limited study on how users interact with or perceive LLM-based interview preparation.”

(e.g., Yoodli, FinalRoundAI)

## Introduction

# Limitation of Current Interview Practice Tools

Additionally, the common limitation of commercially available AI-based interview practice systems is that their feedback is unidirectional

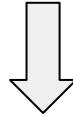


However, researchers argue that **feedback should actively involve the user in the learning process** rather than just delivering assessments (Boud, 2015)

## Introduction

# Better Way to Provide Feedback

For feedback to be effective, the **feedback loop must be closed**, meaning that feedback is not only provided but also understood, and acted upon by the learners (Boud, 2015)

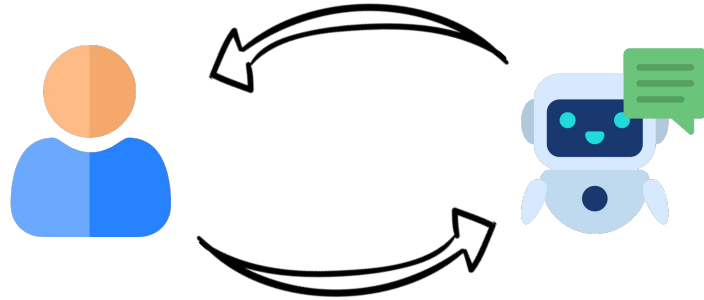


One way to achieve this is through a  
**“Dialogic Feedback”**

## Background

# Dialogic Feedback

“Dialogic feedback is learning about and from feedback that takes place through dialogue, and involves students in interpretational meaning making about the feedback” (Steen et al., 2017)



## Background

# Dialogic Feedback

### Four potentialities for learning (Steen et al., 2017)

Emotional and  
relational support

Facilitating a supportive learning environment using empathetic language is important

Maintenance of the  
dialogue

Engaging in a dialogue and ensuring the continuation of the feedback dialogue

Opportunities to  
express themselves

Allowing learners to articulate their thoughts and reflect on their understandings within the dialogue

Contribution to  
individual growth

Providing feedback and bringing in new knowledge as learners express themselves to support individual growth

# Implementing Dialogic Feedback

1. **Emotional and relational support:** The LLM is prompted to acknowledge the user's answer in a supportive manner by offering constructive feedback
2. **Maintenance of the dialogue:** Upon receiving feedback, users can ask additional questions to deepen their understanding. The AI will then further engage by responding to the user, thereby maintaining a continuous dialogue with the user.
3. **Opportunities for users to express themselves:** During the dialogic feedback process, we added a revision feature for users to revise their answers by clicking the record button and revising their responses post-feedback.
4. **Contribution to individual growth:** After users revise their answers, the LLM will provide feedback again, and users can continue revising repeatedly.



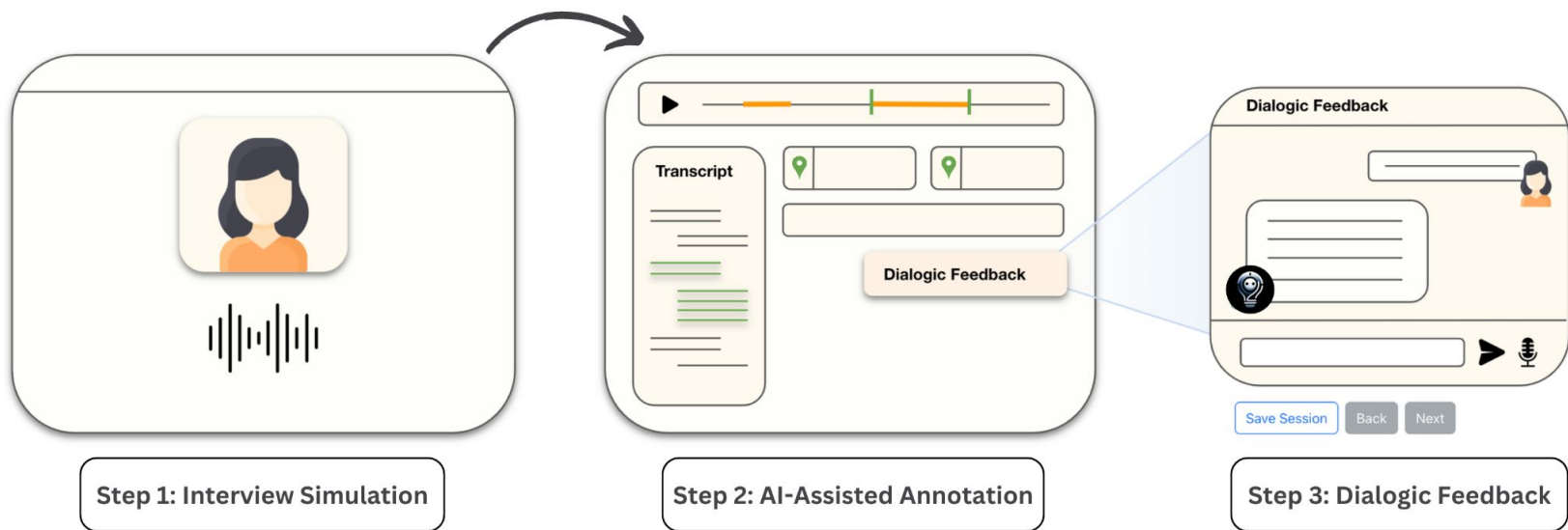
## Background

# Reflective Learning

- Definition of reflection: “activity in which people recapture their experience, think about it, mull it over and evaluate it” (Boud et al., 2013)
- 3 key components for supporting reflections (Slovak et al., 2017):
  - **Explicit:** reconstructing an experience for learning
  - **Social:** providing a supportive learning environment
  - **Personal:** relies on learners’ motivation to actively learn

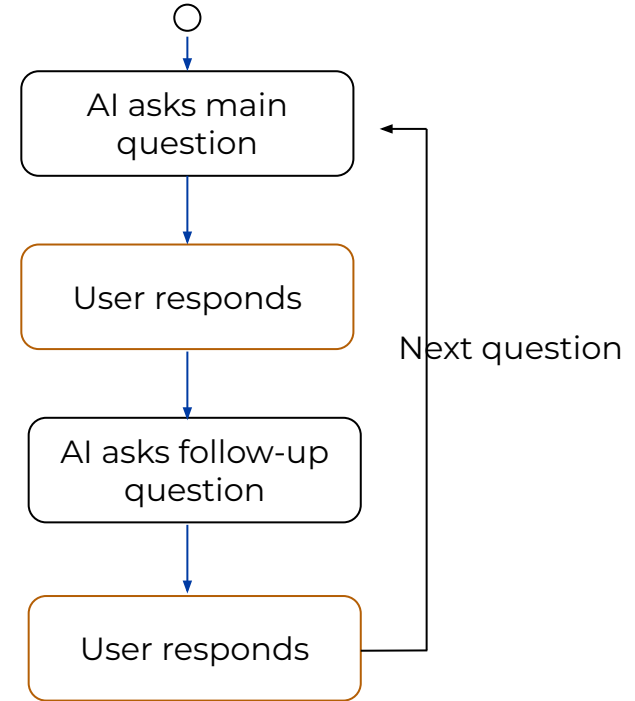
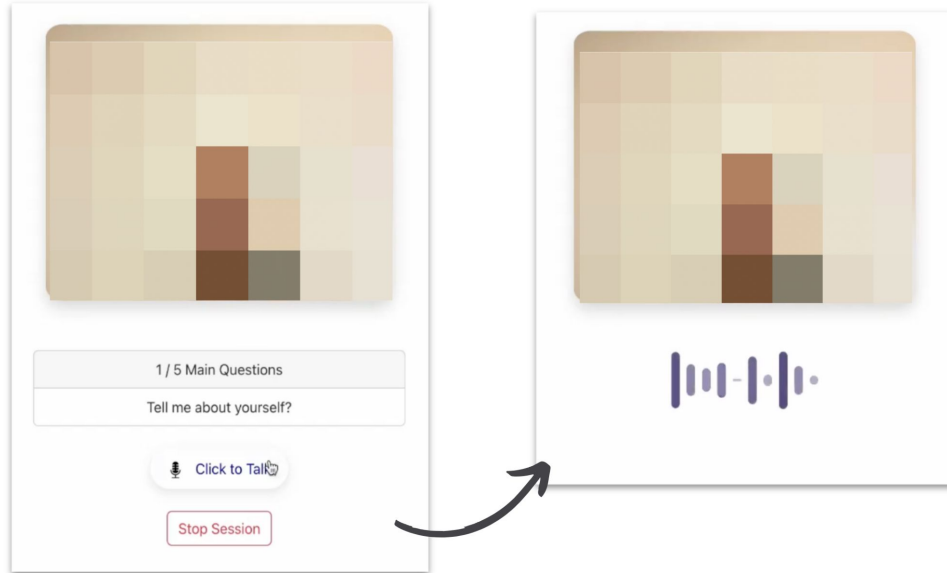
# Conversate: AI-Mediated Interview Practice

An interactive web-based application that leverages LLMs to facilitate reflective learning through interactive interview simulation, AI-assisted annotation, and dialogic feedback for job interview practice.



# System Components

## 1. Interview Simulation



# System Components

## 2. AI-Assisted Annotation

The interface displays a transcript on the left and an annotation panel on the right. The transcript is divided into two sections: 'Generated transcript' (top) and 'Annotated transcript' (bottom). The 'Generated transcript' contains five user messages. The 'Annotated transcript' contains one assistant message and one user message. The annotation panel on the right shows a timeline with two selected timestamps (00:00:39 and 00:01:06) and a text input field for annotations. A 'Self-reflection' button is also present.

**Generated transcript**

- user:** engineer focusing on backend engineering where I built some backend APIs there. 00:00:16
- user:** And I'm currently looking forward to work as a software engineer at your company because 00:00:22
- user:** I'm passionate in coding and building softwares. 00:00:26
- user:** So I'm looking forward to it. 00:00:30
- user:** Thank you. 00:00:32

**Annotated transcript**

- assistant:** That's great to hear! Your experience with backend engineering and building APIs sounds impressive. Can you provide an example of a particularly challenging project you worked on and how you overcame the obstacles? 00:00:39
- user:** One challenging project that I've worked on was building a linear board feature for our app. 00:00:53

**Annotation Panel**

- Timeline: 00:00:39, 00:01:06
- Annotation text: I am not providing enough detail from my example
- Buttons: Open Feedback Chat Window, Save Session, Back, Next
- Unshow Suggested Moments button

**AI-Highlighted Area of Improvement**

**User selected timestamps**

**Self-reflection**

# System Components

## 3. Dialogic Feedback

The screenshot displays a video player interface with a transcript on the left and an annotation tool on the right. The video progress bar at the top shows a duration of 00:00 / 01:24. A button labeled "Unshow Suggested Moments" is located in the top right corner of the player.

**Transcript:**

- user:** engineer focusing on backend engineering where I built some backend APIs there. **00:00:16**
- user:** And I'm currently looking forward to work as a software engineer at your company because **00:00:22**
- user:** I'm passionate in coding and building softwares. **00:00:26**
- user:** So I'm looking forward to it. **00:00:30**
- user:** Thank you. **00:00:32**
- assistant:** That's great to hear! Your experience with backend engineering and building APIs sounds impressive. Can you provide an example of a particularly challenging project you worked on and how you overcame the obstacles? **00:00:39**
- user:** One challenging project that I've worked on was building a linear board feature for our app. **00:00:53**

**Annotation:**

- Annotation 1: **00:00:39** (Yellow pin icon)
- Annotation 2: **00:01:06** (Yellow pin icon)
- Annotation Text: "I am not providing enough detail from my example"
- Annotation Action: "Open Feedback Chat Window" (highlighted with a dashed blue box and a mouse cursor)
- Annotation Buttons: "Save Session", "Back", "Next"

# System Components

## 3. Dialogic Feedback

▶ 00:00 / 01:24

Unshow Suggested Moments

user: engineer focusing on backend engineering where I built some backend APIs there. 00:00:16

user: And I'm currently looking forward to work as a software engineer at your company because 00:00:22

user: I'm passionate in coding and building softwares. 00:00:26

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user: Thank you. 00:00:32

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user: One challenging project that I've worked on was building a leaderboard feature for our app. 00:00:53

### Annotation

📌 00:00:39

📌 00:01:06

I am not providing enough details on my example

#### Ask Feedback

How to improve this part?

Indeed, your response could use more detail. Let's use the STAR method to enhance it:

**Situation:** Start by setting the scene. What was the context of the project? Why was the leaderboard feature needed?

**Task:** What was your specific role or responsibility in this project?

**Action:** Describe the actions you took to address the task. What specific steps did you take to build the linear board feature?

**Result:** Finally, share the outcome of your actions. What was the impact of the feature you built? How did it benefit the app or the users?

Type your question here! 

Send

Save Session

Back

Next

14

# System Components

## 3. Dialogic Feedback

00:00:39 00:01:06

I am not providing enough details on my example

Ask Feedback

How to improve this part?

Indeed, your response could use more detail. Let's use the STAR method to enhance it:

**Situation:** Start by setting the scene. What was the context of the project? Why was the leaderboard feature needed?

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**Action:** Describe the actions you took to address the task. What specific steps did you take to build the linear board feature?

**Result:** Finally, share the outcome of your actions. What was the impact of the feature you built? How did it benefit the app or the users?

Type your question here! Send

Save Session Back Next

2

Do you want to try saying this part again in a better way? I can give you feedback again based on that

during the time my company decide to build a leaderboard feature for our app and during that time I was back in engineer where I need to build it back and part and I need to ensure on the scalability and it needs to be accessible in real time so first I have to decide what kind of technology that I have to use and after thinking and discussing with my teammates I finally decide to use elasticsearch to make to make sure it is real time and scalable and then finally I do love the app and the feature was successfully deployed and it was beneficial for the company as it increased the revenue by 100%

Type your question here! Send

3

Great job! You've effectively used the STAR method in your response:

**Situation:** Working as a software engineer, your team decided to build a leaderboard feature to increase app revenue.

**Task:** As a backend engineer, you were responsible for building a scalable, real-time accessible leaderboard feature.

**Action:** You discussed with your teammates about the tools to use, and decided on Elasticsearch, which you successfully implemented.

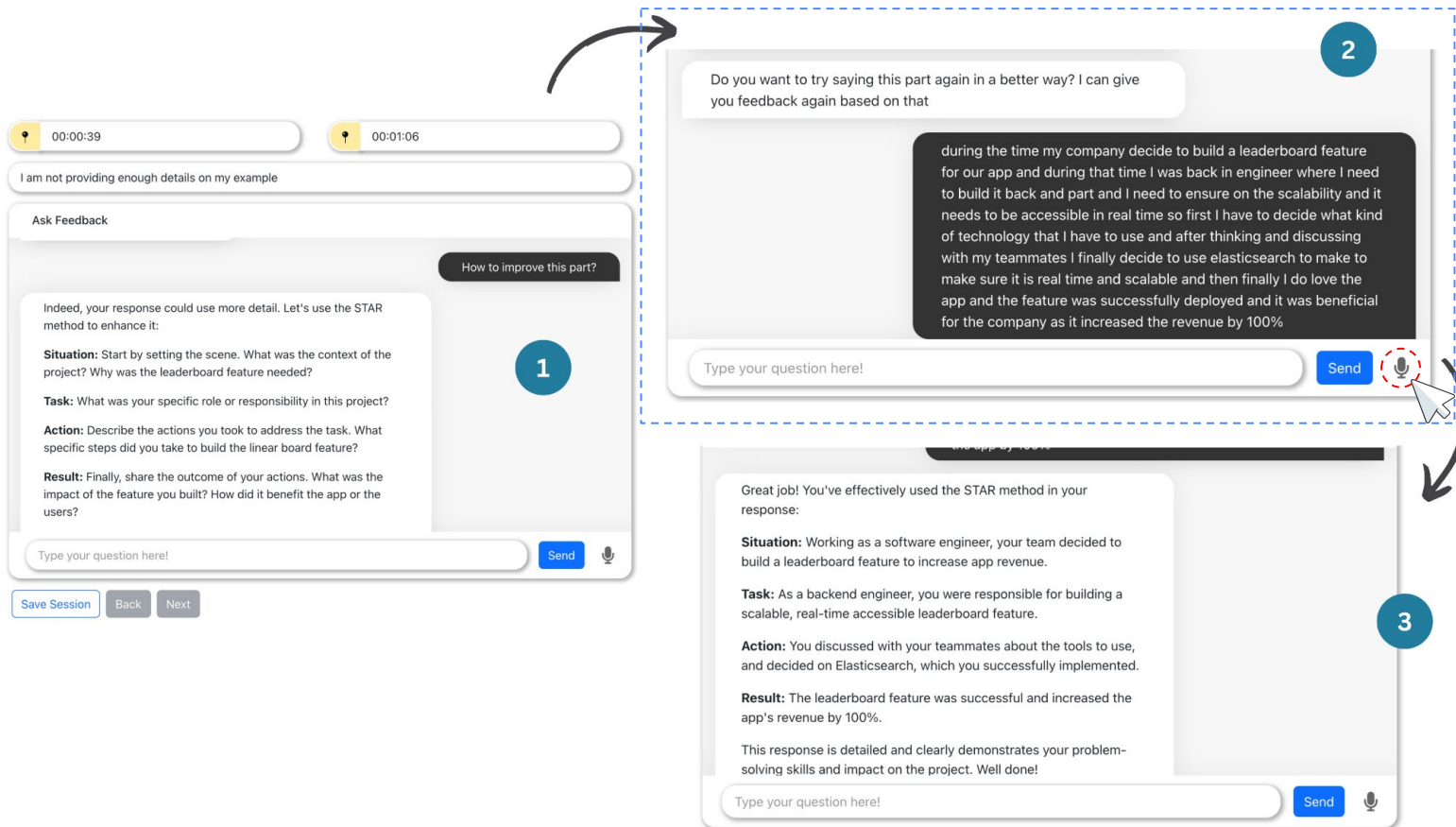
**Result:** The leaderboard feature was successful and increased the app's revenue by 100%.

This response is detailed and clearly demonstrates your problem-solving skills and impact on the project. Well done!

Type your question here! Send

# System Components

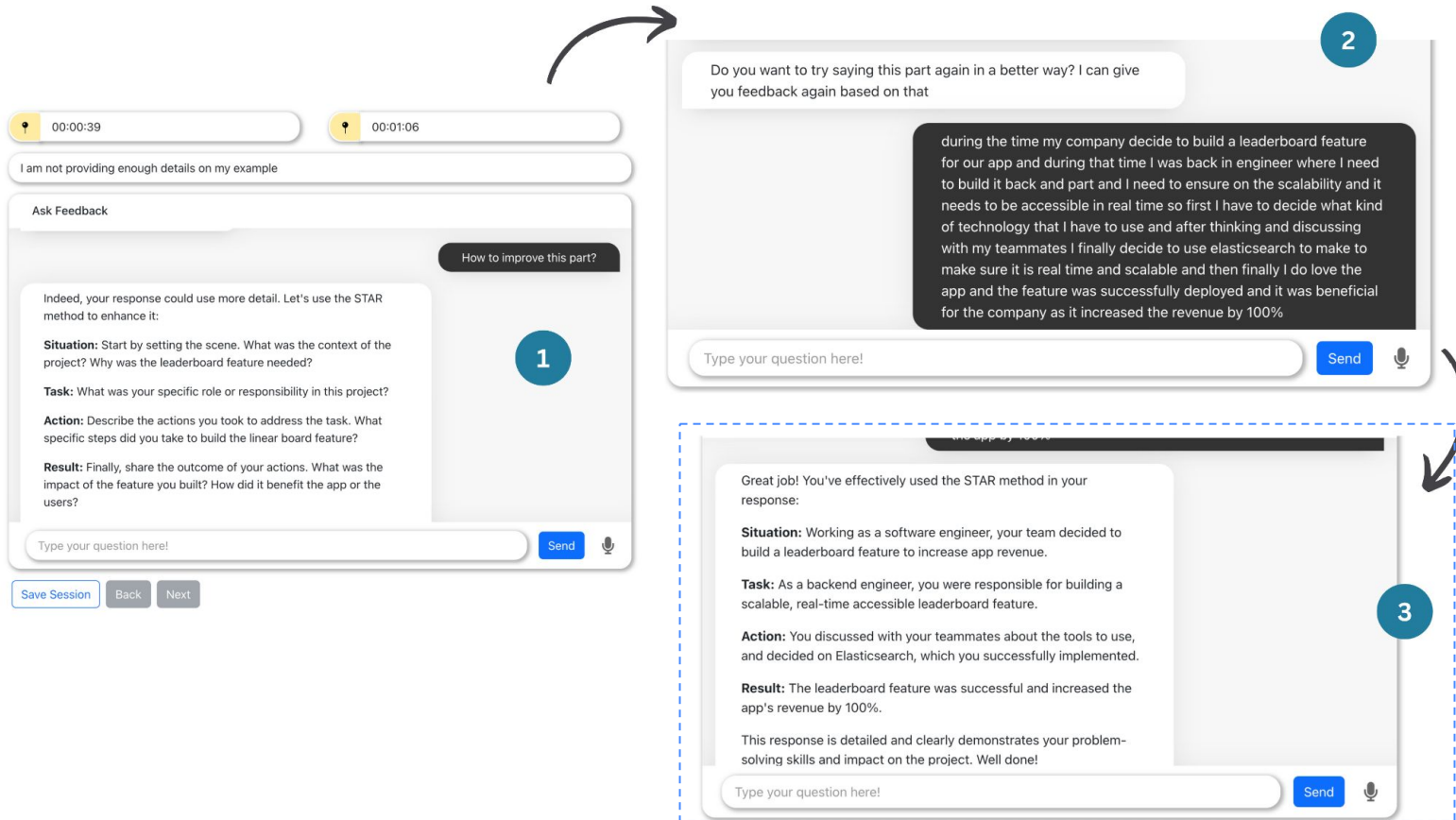
## 3. Dialogic Feedback





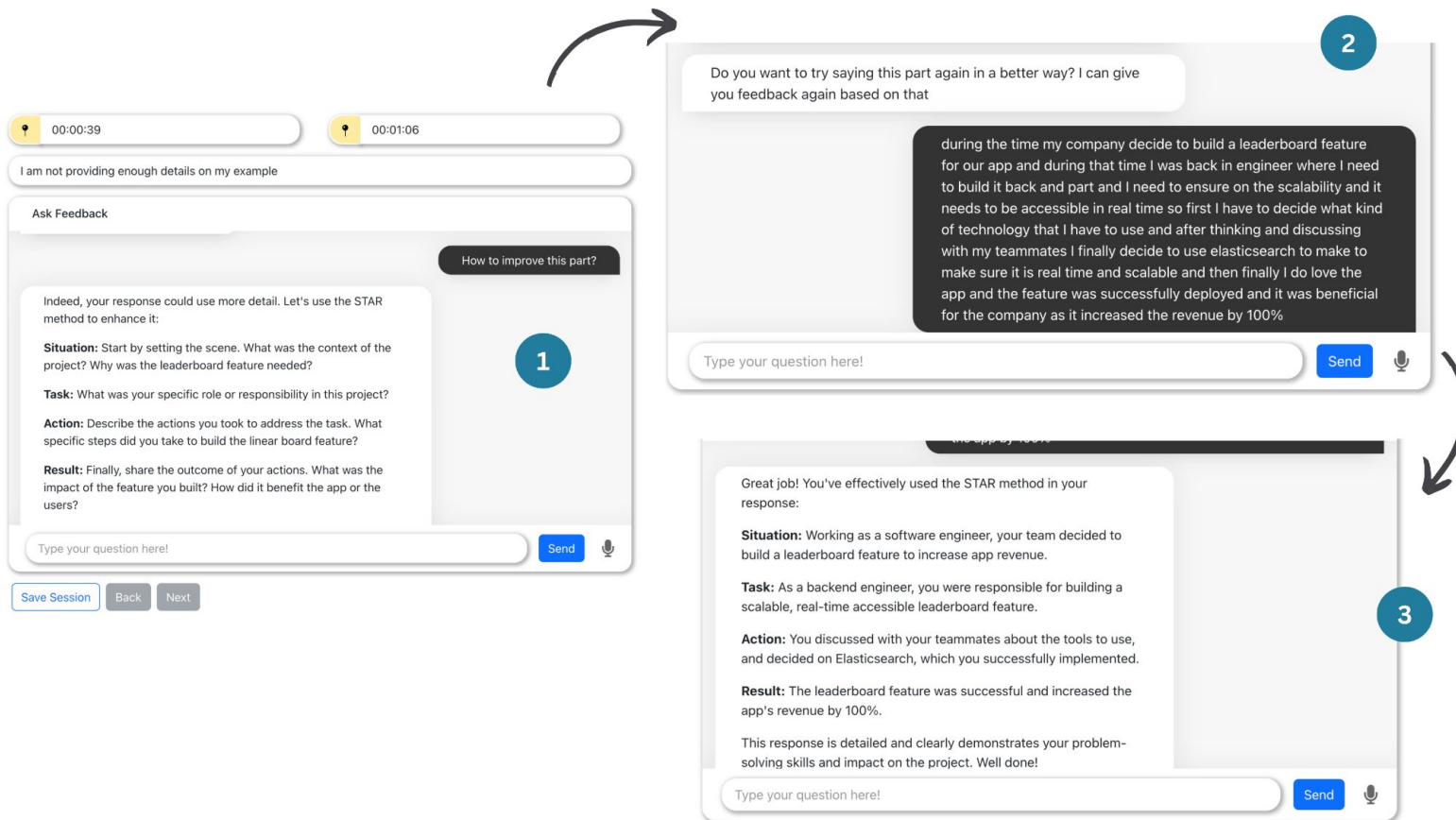
# System Components

## 3. Dialogic Feedback

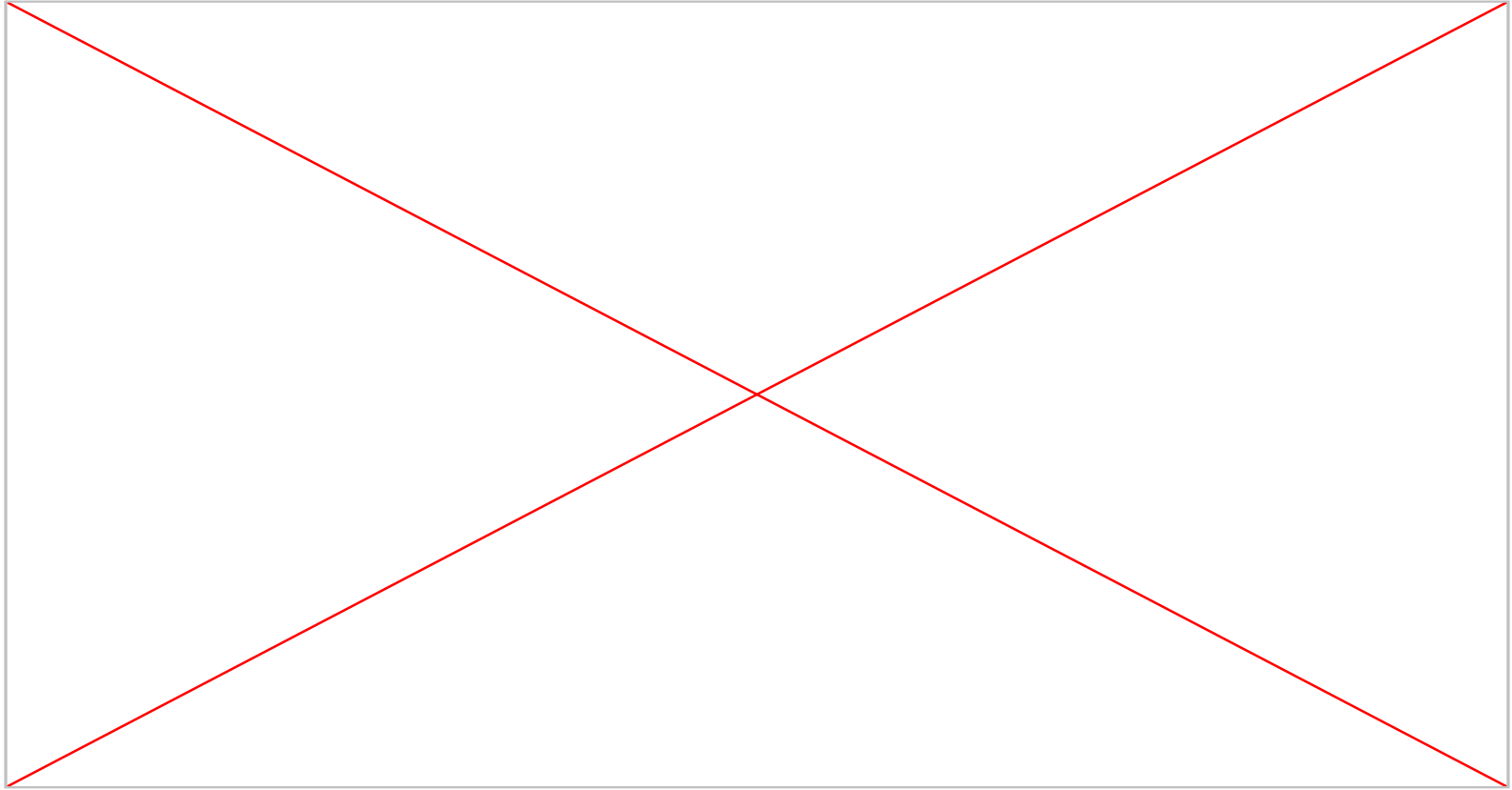


# System Components

## 3. Dialogic Feedback



# System Demo



## User Study

- Method: Semi-structured interview after using the tool (qualitative evaluation). Exploring users perception towards LLM-based interview practice.
- 19 participants (college students, professional workers, unemployed)



# Findings

## Key Findings: Benefits

### Perceived Benefits of Interview Simulation With AI (Feature 1)

- Fostering Improvement Through Repeated Practice in a Low-Stakes Environment
  - *Perceived AI as a “non-judgmental machine.” (P7)*

## Key Findings: Benefits

### Perceived Benefits of Interview Simulation With AI (Feature 1)

- Fostering Improvement Through Repeated Practice in a Low-Stakes Environment
- Perception of AI as a More Professional Interviewer Than Peers

*"Sometimes I feel like with friends, it can be a little bit more casual, and this kind of [AI] simulates a more serious environment. I actually prefer this a little bit more. [...] this experience itself was, I think, a good practice for interviews." - P10*

Important factor: The AI asks very detailed follow-up questions (P5)

## Key Findings: Benefits

### Perceived Benefits of Interview Simulation With AI

- Fostering Improvement Through Repeated Practice in a Low-Stakes Environment
- Perception of AI as a More Professional Interviewer Than Peers
- Contextually Relevant Follow-up Questions Encourage Deeper Thinking

#### *Main question*

Hi, nice to meet you. I'm the Hiring Manager for the Project Manager position. Can you please tell me about yourself?

[...] my background is in **account management and customer success**. So I did that for a couple of years and then eventually during the pandemic made the transition to [...] supporting some large and small scale clients in the **pharmaceutical and healthcare** lines of business.[...]

#### *Follow-up question*

It's great to hear about your background in **account management and customer success** as well as your experience in the **pharmaceutical and healthcare** industries. How do you think these experiences have equipped you to excel in a project management role?

Thank you so much for those questions. [...] First, I'll start off with my experiences ...



## Key Findings: Benefits

### **2. Perceived Benefits of AI-Assisted Annotation**

- Reducing Cognitive Burden by Prioritizing Focus Areas.
- Mitigating Excessive Self-Criticism.

## Key Findings: Benefits

### 2. Perceived Benefits of AI-Assisted Annotation

- Reducing Cognitive Burden by Prioritizing Focus Areas.
- Mitigating Excessive Self-Criticism.

*“I agree with the AI’s suggestions about the areas I would need to practice more. [...] Honestly, I probably would have marked more [weak] areas for me. So I think [the AI] is being generous.” - P12*

However receiving extensive highlighted areas could potentially discouraging

*"If [the AI] says the whole thing was bad, then there's going to be less motivation [for me] to click on every single thing and improve upon it again [...] Even though I think that the whole point is to improve. It is humbling cause we all want to be perfect the first time around [...] I think it needs to have that balance there" - P14*

## Key Findings: Benefits

### Perceived Benefits of Dialogic Feedback (Feature 3)

- Promotes Personalized and Continuous Learning
  - *Allowed user to "continue to ask questions [to] keep advancing your response." (P17)*
  - *"Usually, I have small little blocks in my brain that [lead to] weird questions. The AI is good at answering those in dialogue rather than when you get generalized feedback." (P6)*

## Key Findings: Benefits

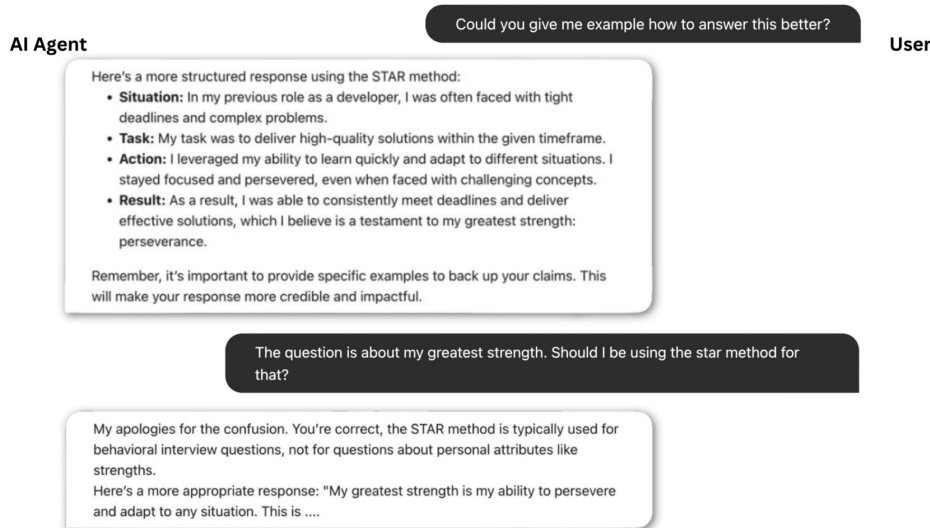
### Perceived Benefits of Dialogic Feedback (Feature 3)

- Promotes Personalized, Continuous Learning
- Helps Users Learn Without Feeling Judged
  - *Engaging in dialogue with the AI "Felt less like being evaluated and more like helping you grow." (P8)*

## Key Findings: Benefits

### Perceived Benefits of Dialogic Feedback (Feature 3)

- Promotes Personalized, Continuous Learning
- Helps Users Learn Without Feeling Judged
- Enables Users to Express Disagreement



## Key Findings: Challenges

### Perceived Challenges in Using AI for Interview Simulation (Feature 1)

- Low-Stakes Environment May Not Fully Reflect Real Interviews
  - Why: *"the AI is always positive or receptive to every answer" (P19)*
  - Suggestion:
    - Adding variability to the AI interviewer's tone
    - Human-AI collaboration

*"Maybe there can be a sort of like option where instead of the bot speaking out the question. I can show this [tool] to my friend, and he would act as the interview [...] and follow the script on a screen." - P19*

## Key Findings: Challenges

### Perceived Challenges in Using LLM-Based Dialogic Feedback (Feature 3)

- Sycophantic Behavior in LLM During Dialogic Feedback
  - The AI tends to agree with the user whenever the user expresses disagreement

*"I thought that it makes sense for you to just say [if] I disagree. But then it just kind of ended up agreeing with me.[...] But it's a good option. " - P14*

## Key Findings: Challenges

### Perceived Challenges in Using LLM-Based Dialogic Feedback (Feature 3)

- Sycophantic Behavior in LLM During Dialogic Feedback
- Never-Ending Revision May Trigger Self-Frustration.

*“I feel disappointed sometimes when I know that I’ve not quite improved. However, I feel happy because at least I’ve got a [feedback], because if I’m not really doing well, that’s the truth, and I need to improve. [...] But sometimes I’m so annoyed with myself, not the AI but myself. Maybe because I didn’t didn’t get something right, or I didn’t improve as much as I wished to.” - P2*

This behavior may cause a shift from learning the core concepts to simply seeking AI approval (P10).



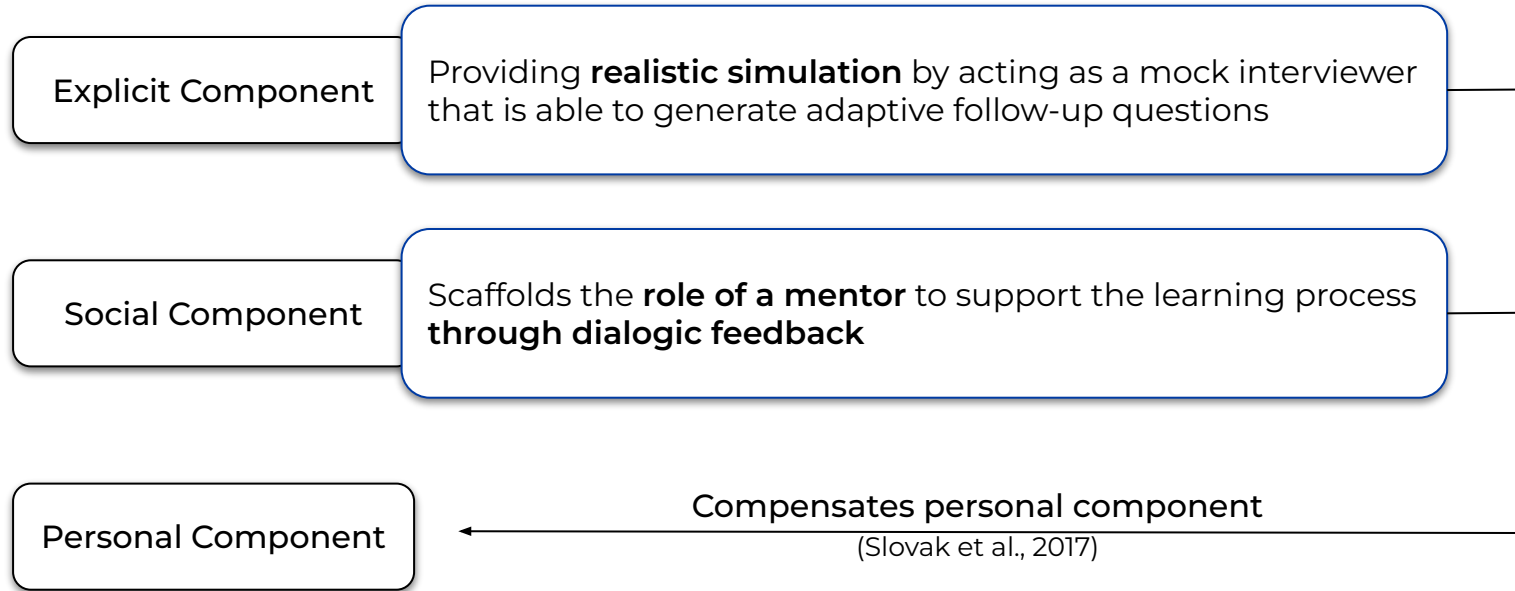


# Discussion

## Discussion

### The Role of LLM in Supporting Reflective Learning in Interview Practice

3 key components for supporting reflections (Slovak et al., 2017):



## Discussion

### Leveraging LLMs for Dialogic Feedback



#### **Benefits:**

- Promoting personalized and continuous learning
- Reduces the feelings of judgment



potentially increase the acceptance and internalization of the feedback (Winstone et al., 2017)



**Challenges:** Sycophantic behaviour of LLM



**Implication:** A shift towards more dynamic and human-like interactions between users and AI systems, especially in a learning context

## Discussion

### Reshaping Learners as Active Agents in Human-AI Collaborative Learning

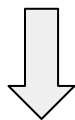
**Learners are not merely recipients of information but active agents** who actively seek information for learning (Boud, 2015)



Our study provides examples that positioning humans as active agents can potentially support the learning process



**Challenge:** maintaining the learner's motivation to engage consistently in the process can be challenging



**Future work:** How to find the balance between having learners as active agents and when the AI should take a more proactive role in engaging the learners in the process?

## Other Future Works

- Technical evaluation of the LLM output and feedback in interview practice
- Longitudinal study to measure the efficacy of LLM-based interview practice
- Integrating LLM-based practice alongside conventional interview preparation

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# Thank You

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