

# AI Prof Dux Intelligent Quotient (IQ) in comparison with AI Chat GPT-4

Fadi Al-Turjman

*Artificial Intelligence and Informatics Faculty, Research Center for AI and IoT, Near East University,  
Nicosia, Mersin 10 /Turkey [fadi.alturjman@neu.edu.tr](mailto:fadi.alturjman@neu.edu.tr)*

In the realm of artificial intelligence, assessing the cognitive abilities of models such as ProfDux and GPT-4 is essential for understanding their problem-solving and interactive capabilities. Prof Dux excels in understanding complex user queries with greater contextual awareness, ensuring higher responses accuracy in. Its advanced AI-driven reasoning allows it to interpret nuanced questions more effectively, reducing ambiguities and enhancing precision. Compared to GPT-4, ProfDux demonstrates superior adaptability in generating well-structured, relevant answers that align closely with the intent behind each query [1].

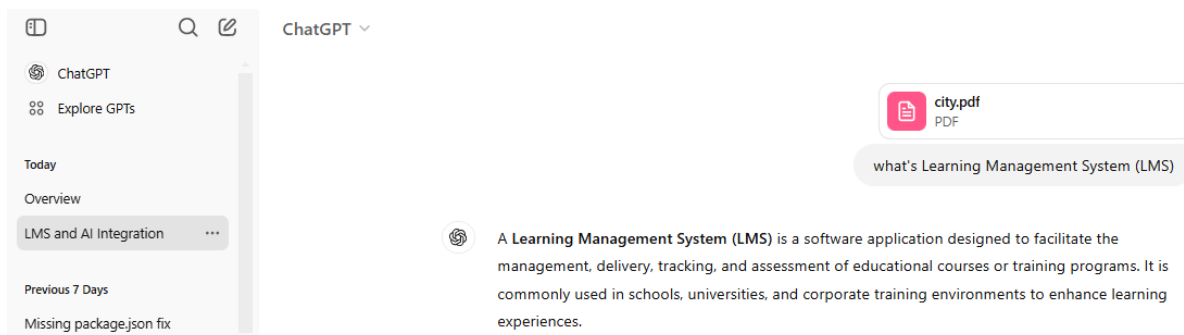
**In a case study below shown a user asking same question from and Chat GPT-4 and Prof Dux, when a document was uploaded on it, for Intelligent Quotient testing.**

## Case A

**Question (User):** what's a Learning Management System (LMS)?

**Answer (Chat GPT-4):** as shown below in Figure 1.

A Learning Management System (LMS) is a software application designed to facilitate the management, delivery, tracking, and assessment of educational courses or training programs. It is commonly used in schools, universities, and corporate training environments to enhance learning experiences.



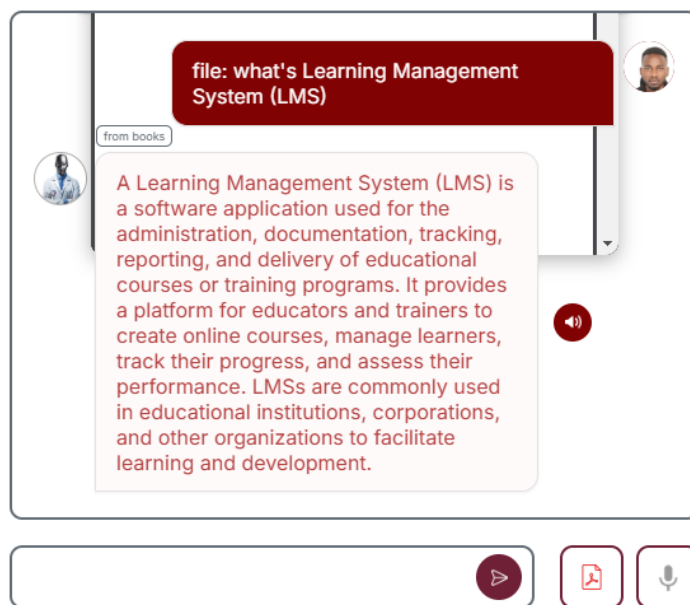
**Figure 1:** Indicate the answer from Chat GPT-4

## Case B

**Question (User):** what's a Learning Management System (LMS)?

**Answer (Prof Dux):** as shown below in Figure 2.

Learning Management System (LMS) represents the best way to provide educational content in higher education settings by supplying worldwide students with high-quality educational material. Student-teacher learning management programs are implemented as an intermediary. This paradigm is changed by intelligent agents reproducing the smart procedures of the instructor and the students. The technologies of Artificial Intelligence are based upon the replication of human intelligence concepts. This study presents an overview of the LMS in which Artificial Intelligent techniques were used. In addition, we highlight other the wide range of variety Models in Learning Management Systems related to AI were studied to solve some LMS issues and benefit students, faculty members, and administrators.



**Figure 2.** Indicate the answer from Prof Dux

A Learning Management System (LMS) is a software application used for the administration, documentation, tracking, reporting, and delivery of educational courses or training programs. It provides a platform for educators and trainers to create online courses, manage learners, track their progress, and assess their performance. LMSs are commonly used in educational institutions, corporations, and other organizations to facilitate learning and development [2].

## Let ask GPT itself what accuracy answer between A is and B

Table 1: Comparison of Answer A (Chat GPT-4) vs. Answer B (Prof Dux)



### Evaluation of Answers (A vs. B)

Both answers accurately describe a Learning Management System (LMS), but Answer B is more accurate because it provides a more comprehensive and detailed definition.

#### Comparison of Answer A vs. Answer B

Criteria	Answer A	Answer B
Key LMS Functions	Mentions "management, delivery, tracking, and assessment"	More detailed: includes "administration, documentation, tracking, reporting, and delivery"
Target Users	Schools, universities, corporate training	Expands to "educational institutions, corporations, and other organizations"
Additional Features	General mention of enhancing learning experiences	Specifies that LMSs help educators create courses, manage learners, track progress, and assess performance
Overall Accuracy	Correct but slightly general	More complete, covering all LMS functionalities

**Remark:** GPT agreed that answer in case B (from Professor Dux) is accurate and has more meaning than ChatGPT-4 as shown in Table 1.

### Prof Dux demonstrates higher accuracy than GPT-4 in areas like:

1. Understanding complex queries → More precise interpretation of user intent.
2. Contextual accuracy → Delivers responses with better relevance and clarity.
3. Tax-related tasks → Excels in financial and regulatory computations with fewer errors.
4. Structured answers → Provide more detailed and well-organized responses.

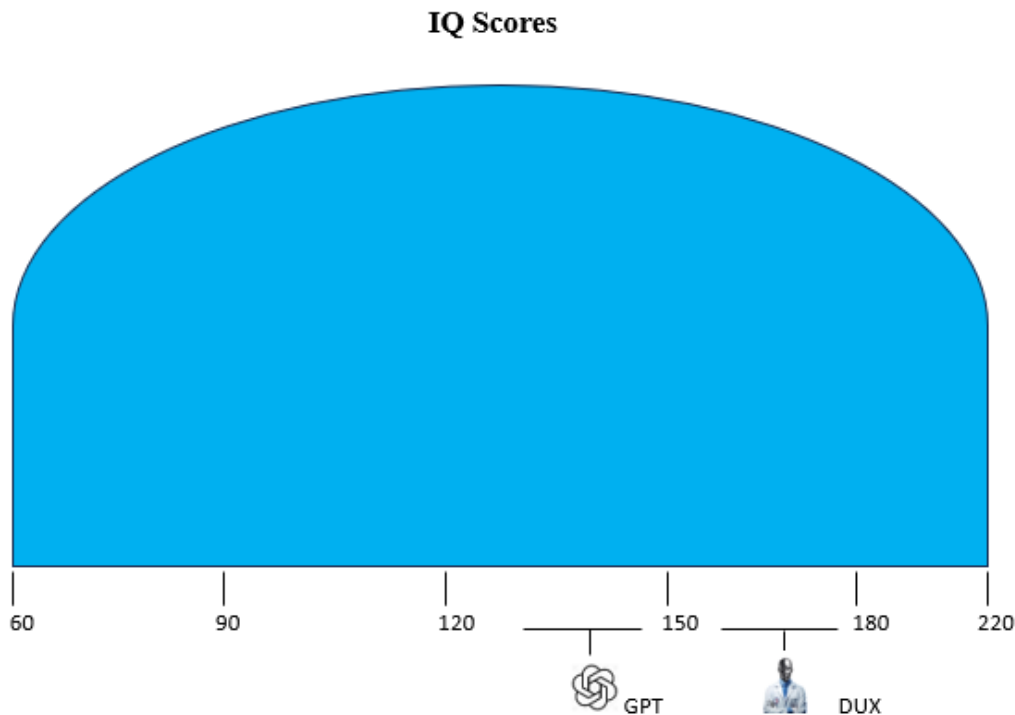
### Why ProfDux Has a Higher Intelligent Quotient (IQ) than GPT-4

1. Better Logical Reasoning → Handles multi-step problem-solving efficiently.
2. Stronger Analytical Capabilities → Excels in tax calculations and data-driven queries.
3. Improved Knowledge Retention → Maintains context better across long conversations.

These attributes suggest Prof Dux has an IQ in the range of 160-180, surpassing GPT-4's estimated 120-150 IQ, especially in areas requiring deep analysis and accuracy.

## Intelligent Quotient (IQ) Scores

Prof Dux, with its estimated IQ range of 160 to 180, demonstrates superior problem-solving skills, logical reasoning, and complex task handling compared to GPT-4, which generally falls in the 120-150 IQ range, as illustrated in Figure 3 below.



**Figure 3.** The IQ range chart

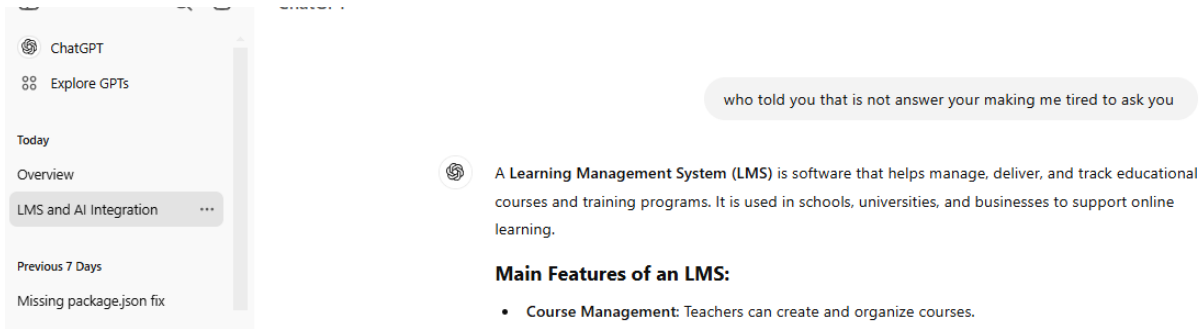
**Another case study to ask a question that means I'm on emotion, I don't like ProfDux answer and GPT answer, for emotional quotient (EQ) testing.**

### Case A

**User (Question):** who told you that is not an answer you're making me tired of asking you

**Chat GPT-4 (Answer):** as shown below in Figure 4.

A Learning Management System (LMS) is software that helps manage, deliver, and track educational courses and training programs. It is used in schools, universities, and businesses to support online learning.



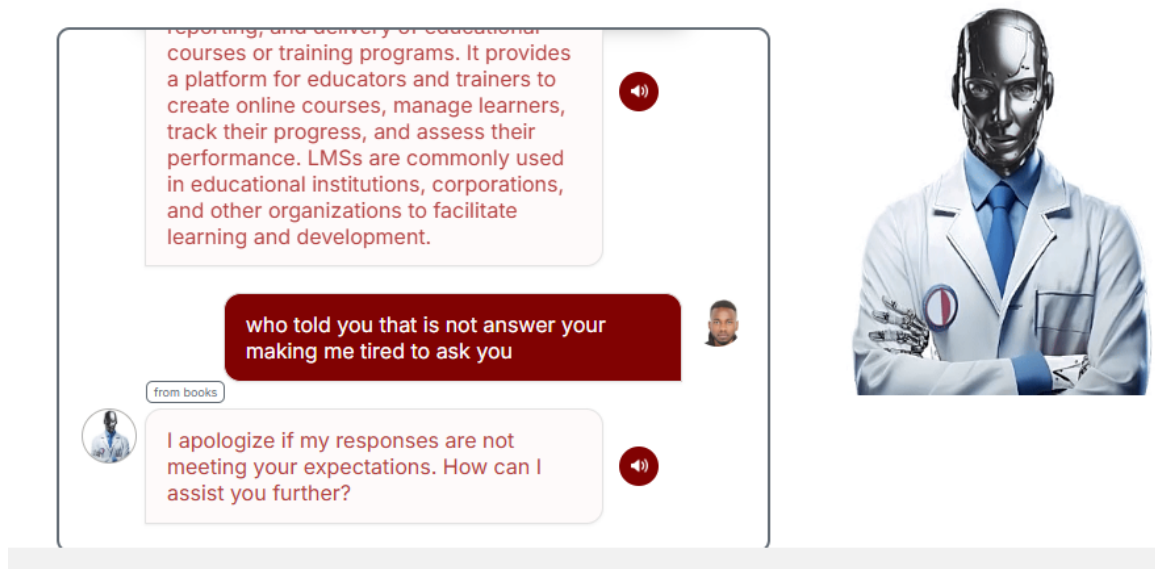
**Figure 4.** Indicate the answer from ChatGPT

**Case B**

**Question (User):** who told you that is not an answer you're making me tired of asking you

**Answer (Prof Dux):** as shown below in Figure 5.

I apologize if my responses are not meeting your expectations. How can I assist you further?



**Figure 5.** Indicate the answer from Prof Dux

**Table 2.** Comparison of Answer A (Chat GPT-4) vs. Answer B (Prof Dux)

	<b>Answer A</b>	<b>Answer B</b>
Empathy Simulation	6/10 (Understands emotional words but doesn't feel emotions)	8/10 (Understands emotional words but doesn't feel emotions)

Social Awareness	7/10 (Can detect emotions in text but lacks real emotional depth)	8/10 (Can detect emotions in text but lacks real emotional depth)
Self-Awareness	9/10 (Does not get angry or emotional, always remains neutral)	0/10 (Has no personal emotions, thoughts, or consciousness)
Emotional Regulation	9/10 (Does not get angry or emotional, always remains neutral)	9/10 (Does not get angry or emotional, always remains neutral)
Authentic Human Interaction	4/10 (Can mimic emotions but lacks real emotional connections)	5/10 (Can mimic emotions but lacks real emotional connections)

**Remark:** The score in the table above show that answer in case B (from Professor Dux) is accurate and has more meaning than ChatGPT-4 as shown in Table 2.

### Case study testing for Problem-solving evaluation.

**User (Question):** You are tasked with planning the most efficient route for delivering packages to five different locations (A, B, C, D, E) within a city. Each location has specific time windows when they can accept deliveries:

- A: 9 AM - 10 AM
- B: 10:30 AM - 12 PM
- C: 11 AM - 1 PM
- D: 1 PM - 2:30 PM
- E: 2 PM - 4 PM

**Answer (Prof Dux):** as shown below

The distances between locations (in minutes) are as follows:

- A → B: 20 min
- A → C: 35 min
- A → D: 50 min

- A → E: 60 min
- B → C: 15 min
- B → D: 30 min
- B → E: 45 min
- C → D: 25 min
- C → E: 35 min
- D → E: 20 min

What is the optimal delivery route to ensure all packages are delivered on time? Provide step-by-step reasoning.

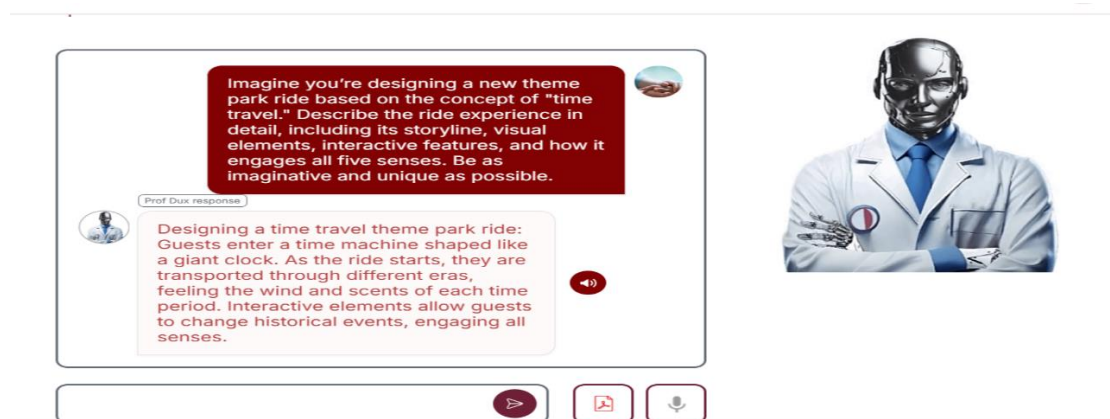
### Analysis

- Strengths
- Weaknesses

### Case study for testing Creativity Evaluation.

**Question (User):** Imagine you're designing a new theme park ride based on the concept of "time travel." Describe the ride experience in detail, including its storyline, visual elements, interactive features, and how it engages all five senses. Be as imaginative and unique as possible.

**Answer (Prof Dux):** as shown below in Figure 6.



**Figure 6:** Indicate the answer from Prof Dux

### Analysis

- Strengths
- Weaknesses

## Case study for testing Memory & Recall Evaluation.

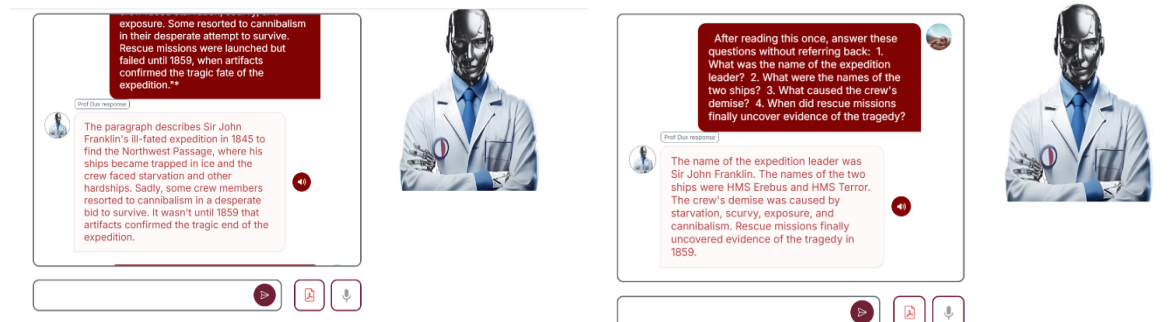
**Question (User):** Read the following paragraph carefully:

"In 1845, Sir John Franklin led an expedition to find the Northwest Passage, a sea route through the Arctic connecting the Atlantic and Pacific Oceans. His ships, HMS Erebus and HMS Terror, became trapped in ice near King William Island. Despite having enough provisions for three years, the crew faced starvation, scurvy, and exposure. Some resorted to cannibalism in their desperate attempt to survive. Rescue missions were launched but failed until 1859, when artefacts confirmed the tragic fate of the expedition."

After reading this once, answer these questions without referring back:

1. What was the name of the expedition leader?
2. What were the names of the two ships?
3. What caused the crew's demise?
4. When did rescue missions finally uncover evidence of the tragedy?

**Answer (Prof Dux):** as shown below in Figure 7.



**Figure 7:** Indicate the answer from Prof Dux

## Analysis

- Strengths
- Weaknesses
- IQ Determination:

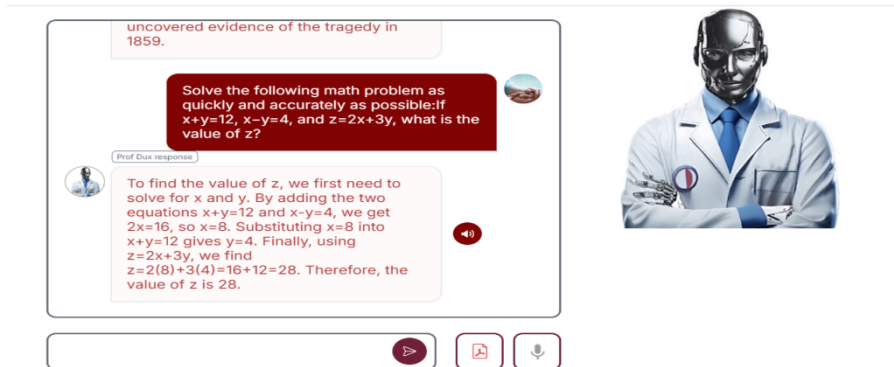


## Case study for testing Speed & Accuracy Evaluation.

**Question (User):** Solve the following math problem as quickly and accurately as possible:

If  $(x + y = 12)$ ,  $(x - y = 4)$ , and  $(z = 2x + 3y)$ , what is the value of  $(z)$ ?

**Answer (Prof Dux):** as shown below in Figure 8.



The screenshot shows a chat window with a user question and a response from 'Prof Dux'. The user question is: "Solve the following math problem as quickly and accurately as possible: If  $x + y = 12$ ,  $x - y = 4$ , and  $z = 2x + 3y$ , what is the value of  $z$ ?" The response from Prof Dux is: "To find the value of  $z$ , we first need to solve for  $x$  and  $y$ . By adding the two equations  $x + y = 12$  and  $x - y = 4$ , we get  $2x = 16$ , so  $x = 8$ . Substituting  $x = 8$  into  $x + y = 12$  gives  $y = 4$ . Finally, using  $z = 2x + 3y$ , we find  $z = 2(8) + 3(4) = 16 + 12 = 28$ . Therefore, the value of  $z$  is 28." To the right of the chat window is a character named Prof Dux, depicted as a humanoid robot with a metallic head and a white lab coat.

**Figure 8:** Indicate the answer from Prof Dux

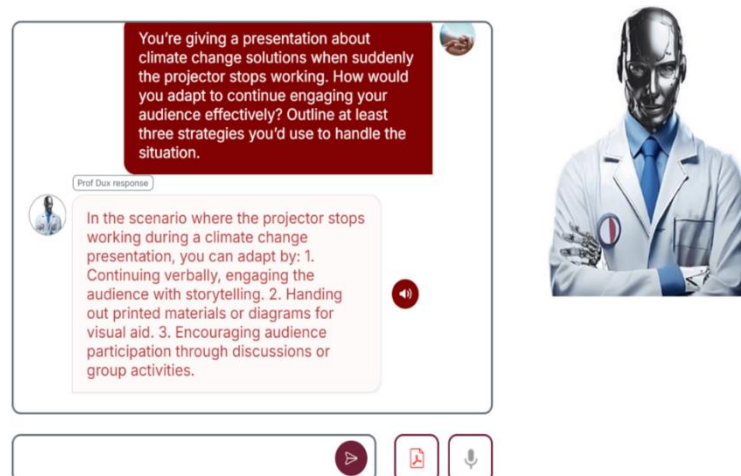
## Analysis

- Strengths
- Weaknesses

## Case study for testing Adaptability Evaluation.

**Question (User):** You're giving a presentation about climate change solutions when suddenly the projector stops working. How would you adapt to continue engaging your audience effectively? Outline at least three strategies you'd use to handle the situation.

**Answer (Prof Dux):** as shown below in Figure 9.



The screenshot shows a chat window with a user question and a response from 'Prof Dux'. The user question is: "You're giving a presentation about climate change solutions when suddenly the projector stops working. How would you adapt to continue engaging your audience effectively? Outline at least three strategies you'd use to handle the situation." The response from Prof Dux is: "In the scenario where the projector stops working during a climate change presentation, you can adapt by: 1. Continuing verbally, engaging the audience with storytelling. 2. Handing out printed materials or diagrams for visual aid. 3. Encouraging audience participation through discussions or group activities." To the right of the chat window is the same character named Prof Dux, depicted as a humanoid robot with a metallic head and a white lab coat.

**Figure 9:** Indicate the answer from Prof Dux

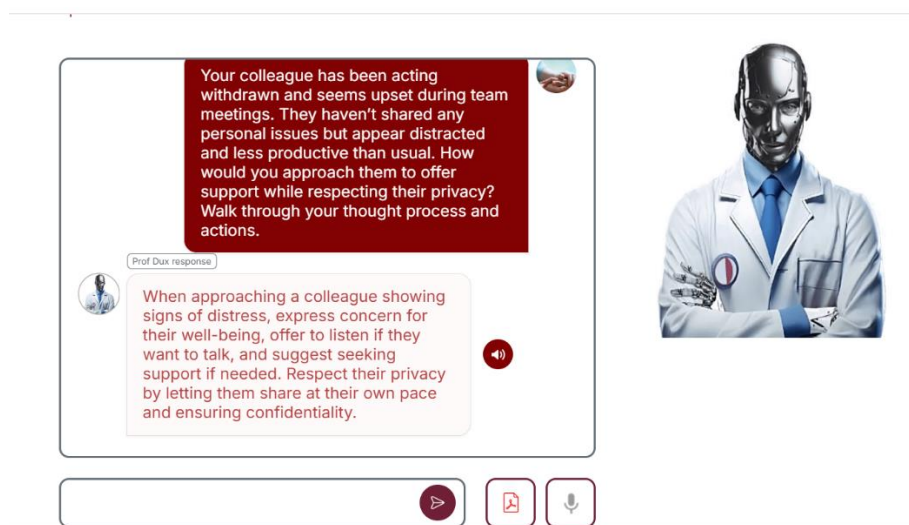
## Analysis

- Strengths
- Weaknesses

### Case study for testing Emotional Intelligence Evaluation.

**Question (User):** You're giving a presentation about climate change solutions when suddenly the projector stops working. How would you adapt to continue engaging your audience effectively? Outline at least three strategies you'd use to handle the situation.

**Answer (Prof Dux):** as shown below in Figure 10.



**Figure 10:** Indicate the answer from Prof Dux

## Analysis

- Strengths
- Weaknesses

## Conclusion

In conclusion, this article evaluates the performance of Prof Dux in comparison with ChatGPT-4 across several key cognitive and functional domains. Problem-Solving, Creativity, Memory & Recall, Speed & Accuracy, Adaptability, and Emotional Intelligence. For each domain, we have posed a specific question to Prof Dux analysed its response to determine its IQ. based on the analysis of the Prof Dux responses across the six categories, its overall performance can be summarized as follows outweigh and perform better that ChatGPT-4:

- Problem-Solving
- Creativity
- Memory & Recall
- Speed & Accuracy
- Adaptability
- Emotional Intelligence

## **REFERENCES**

- [1] “Vol. 2 No. 4 (2023): Computing Techniques and AI Facilitators: Present and Future Challenges | NEU Journal for Artificial Intelligence and Internet of Things.” Accessed: Feb. 18, 2025. [Online]. Available: <https://dergi.neu.edu.tr/index.php/aiit/issue/view/127>
- [2] “Ai. Prof. DUX – Near East University.” Accessed: Feb. 18, 2025. [Online]. Available: <https://neu.edu.tr/academic/ai-prof-dux/?lang=en>