

Udemy AI Assistant UX Research Portfolio | Katherine Okpara

Table of Contents

1. [Udemy AI Assistant Research & Launch Overview](#)
2. [Key Insights from Foundational and Evaluative Research](#)
3. [AI Assistant Beta Launch Data Collection & Analysis Summary](#)
4. [Detailed Insights about Udemy Learners](#)
5. [Detailed Insights about Udemy Instructors](#)



What is Udemy?

Online learning platform with a global catalog of courses in a wide variety of languages and subject domains (*e.g., Data Science, IT, Web Development, Business Intelligence, etc*)

Key features: lectures, quizzes, coding exercises, certifications, AI Assistant, and AI Role Play

User Groups

“Instructors”

People who publish course content and/or exam preparation on Udemy

“Learners”

People who use Udemy to take online learning courses and/or exam preparation

There are 4 main types of learners, based on how they pay for Udemy:

- Enterprise / Udemy Business
- Team Plan
- Personal Plan
- Marketplace

Context

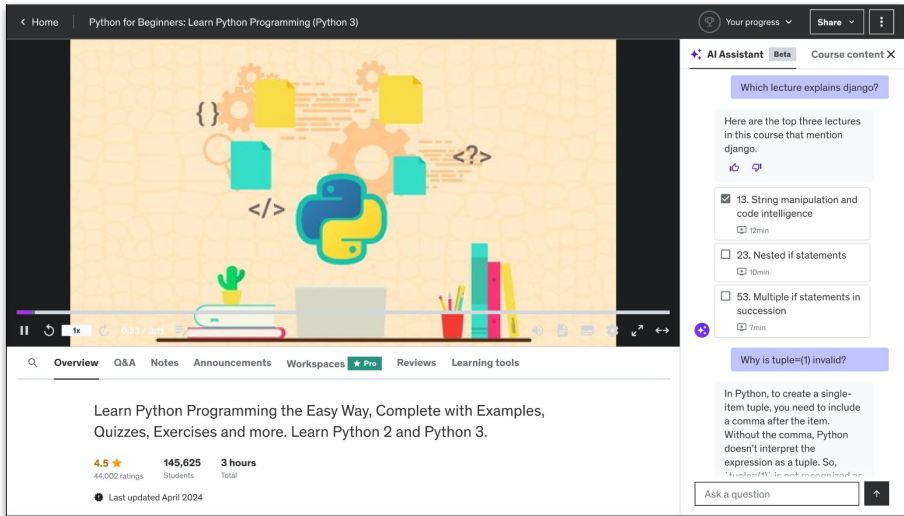
In 2024, Udemy began to pivot to becoming an “AI-powered skills learning platform,” **igniting debate amongst consumers and concerns from instructors on the platform**. This led to a growing need for research to understand how to strategically introduce these innovative capabilities.

My primary objectives as the sole researcher on the project were to:

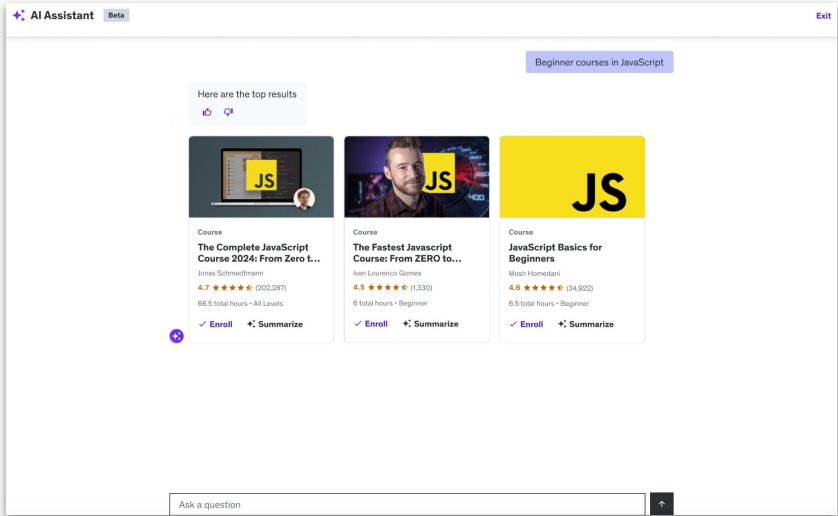
- Equip the product and design teams with deep insight into consumer mental models around AI
- Lead iterative research studies as we tested various concept directions across content discovery, in-course support, and AI-generated assessment capabilities
- Participate in the QA testing and refinement of the AI Assistant’s prompts and recommendations
- Partner closely with Data Science and Marketing stakeholders to create a continuous feedback loop during the Alpha, Beta, and General release phases of an AI product

Udemy AI Assistant Primary Use Cases

“In-course” AI assistance

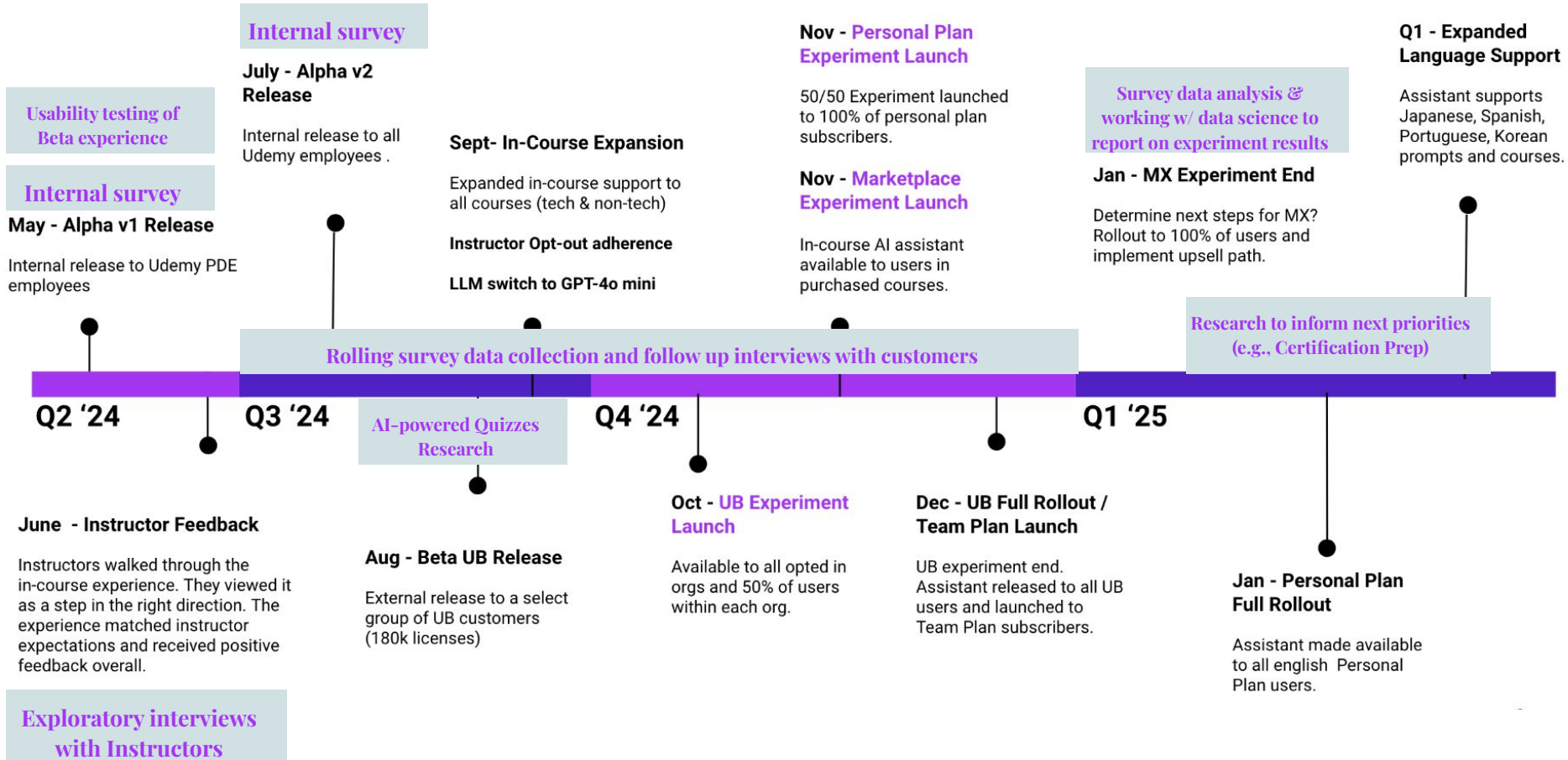


“Content discovery” AI assistance



These features were being built in parallel, so I worked cross-functionally with 2 Product Managers, 3 Designers, and 2 engineering teams.

Udemy AI Assistant Research Roadmap & Launch Overview



Research Summary

Key Insights from Foundational and Evaluative Research

My role on the Udemy AI Assistant Project

I led foundational and evaluative research for the AI-powered learning assistant in Udemy, focusing on content discovery, in-course support, and AI-generated assessments capabilities.

My role was to:

- Deeply understand the motivations, goals, and needs of Udemy learners and instructors
- Generate actionable insights and help the team define and evolve the product direction
- Create action plans for incorporating insights into business objectives
- Help Udemy navigate a controversial feature launch by refining product positioning and messaging

My research answered these key questions:

- What information do learners want to know about the AI recommendations?
- How do learners expect to see AI Assistant recommendations displayed in the UI?
- How does the entry point placement impact discoverability of the AI Assistant?
- What key actions do learners want take from the AI Assistant module?
- What concerns do instructors have about introducing an in-course AI Assistant?
- How can Udemy make AI Assistant beneficial for both learners and instructors?

Research Approach (studies conducted between June '24 - August '24)

Learner Research Objectives and Methodology (3 studies)

Objectives

- Understand how *learners* currently explore and select content
- Explore how learners expect to see AI-recommended results displayed in the UI
- Identify the context or information learners need to decide which course to take
- Identify opportunities for AI Assistant to enhance and better support the learning experience

Methodology

- User interviews and concept testing sessions about content discovery and AI-generated assessments
- Unmoderated usability testing of the in-course AI Assistant w/ Figma prototype

Instructor Research Objectives and Methodology (2 studies)

Objectives

- Understand *instructor* sentiments around the challenges and opportunities in managing Q&A, updating courses, interacting with learners, and creating quizzes
- Concept testing of key AI Assistant features (in-course chat, re-route to Q&A, quiz guidance, quiz answer explanations)

Methodology

- Interviews with instructors who have **technical** courses in the UB catalog and are familiar with artificial intelligence tools
- Concept testing sessions where instructors walked through a Figma prototype that demonstrated key AI Assistant capabilities

Key Learner Insights

After seeing these [AI recommended results] and seeing the list of courses below, I'd probably be checking what would happen if I write Javascript beginner [into the search bar]. Would it be the same results as this or not? Because **I would want to kind of test if the AI is actually useful, or if it is just quoting a search I could've done on my own.** I like AI, I use it, but I'm not a fan of AI. So **I use it when it brings actual value that I couldn't do on my own. It has to prove it to me.**

- Udemy Learner, Network Engineer

Learners need to build trust in AI Assistant before relying on its recommendations — they expect to see AI recommendations displayed alongside other search results to evaluate quality

The in-course AI Assistant should not *replace* the Course Content List — learners find this feature important for planning their learning sessions and staying motivated to complete the course

Learners find prompts helpful for demonstrating how to interact with AI Assistant

Learners generally expect short "knowledge checks" along the way and a comprehensive test at the end of the course — they need quizzes that are engaging and consistent in the quality of the questions

Learners want more scenario-based questions and ways to practically apply knowledge

Key Instructor Insights

In this case, **the benefits outweighs the costs significantly**. Because in the process of learning, even if the AI hallucinates and gives you a wrong answer, at some point you go down the road and you'll find out it wasn't actually true – if you continue learning. But the risk is that, if you don't have a tutor which can respond to you in real time, you get discouraged and you don't learn anything at all. So I think even the hallucination part isn't that scary. ***The scary part is if they give up.***

- Nedko, VIP Udemey Instructor

Accuracy of responses and data privacy were the primary concerns from instructors who were against the AI Assistant

Many instructors think the AI Assistant will be beneficial for managing Q&A **but** fear they'll lose visibility into the types of questions learners are asking

Instructors would value AI Assistant filling the gaps in adding explanations for quiz answers and linking to lectures for concept review

Instructors see AI guidance on quizzes as a helpful improvement for both learners and instructors

Instructors strongly advise that AI-generated questions be reviewed by humans before they are shown to learners

Instructors caution against AI Assistant providing guidance on practice tests, formal assessments, or certification practice exams that are meant to reliably assess and predict readiness

Research Impact

Research Impact

Insights from these studies uncovered how prompt design and system behavior affect learning outcomes, customer trust and confidence, and overall usability.

- Highlighted where the AI Assistant succeeded and what pitfalls we needed to account for in the QA and process
- Illuminated a crucial point that the **ability to trust the AI Assistant is a critical need** for adoption by learners
- Empowered Udemy to **navigate a controversial feature launch** by building relationships with instructors and identifying their key concerns, questions, and needs in the GenAI space.
 - AI Assistant should be positioned as a partner for helping instructors manage Q&A, improve course quality, and mitigate negative reviews
 - Instructors should be given insight into the types of questions learners are asking so they can update and refine their courses over time
- Enabled the team to **invest more effort into improving prompt/recommendation quality** and providing clearer language to describe how AI was being leveraged by the system
 - Make explanations more readable and scannable
 - Help learners better understand why the content is recommended to them
- Uncovered that the Udemy AI Assistant **leveraging contextual information from the instructor's course** on the platform was a key differentiator from other AI tools

Research Impact (cont...)

Why did this research matter?

Initially, instructors consistently expressed concerns that AI features could encroach on their role in Udemy. These studies enabled our team to have open discussions, build trust, and understand the nuances of their concerns. Instructors who participated also went on to become supporters of the feature and helped to get more of their peers on board.

The Udemy Instructor Strategy team leveraged insights from this research to refine their opt-in communication to instructors, resulting in **a 98% opt-in rate of UB instructors** consenting to be involved in the AI Assistant beta experiment.

Impact of the research, in their own words

Instructor Strategy Team Feedback

“This is a great example of how to engage instructors in validating messaging so we can learn and iterate on messaging prior to launch to better support our goal to minimize Instructor AI Opt-Out.”

- Senior Director of Instructor Strategy

“It seems increasingly critical that we deliver instructors 'ULA Insights' at the same time ULA goes to beta. I think this validates our strategy to pause AI Assisted Q&A until we can measure the impact ULA has on overall Q&A volumes.”

**- Senior Director of Product Management,
Supply & Instructor**

Positioning & Messaging: Advantages of integrating Gen AI into online learning

Previously online learners had to sift through vast content collections and leverage multiple tools throughout their learning journey



Support learners throughout the entire journey

Assessing their skill level, planning learning session times, displaying progress, clearing up confusion, encouraging them to keep learning, *and much more*

Proactively highlight key concepts that are important to learn

Provide learners with support in areas where other learners have gotten confused and assess their understanding of the concepts

Reduce context switching

Learners won't need to leave their current view to ask and get answers to their questions - reducing the time taken to use external search engines and AI tools

Provide contextually relevant insights and guidance

Learners can explore specific concepts found in Udemy courses and get practical help

Case Study Project

AI Assistant Beta Launch Data Collection & Analysis

Q4 2024

AI Assistant Beta Feedback Collection Overview

Goals and objectives

Understand learners' perceptions of the value of the AI Assistant.

Collect feedback on a rolling basis from learners who participate in the Beta Experiment phase of the AI Assistant external launch.

Methodology:

- 1) Thematic analysis of AI Assistant message inputs
- 2) In-product survey via Pendo (UB Experiment) and Alchemer (MX/PP)
- 3) Subset of survey respondents were invited to participate in a follow up interview to further discuss their experiences

Data Collection Snapshot

Limited Beta

- Early launch to 6 orgs, conducted from July 6th - Dec 9th
- 96 responses to the in-course survey, 15 responses to the content discovery survey

Udemy Business (UB) Experiment

- Conducted from Oct 22nd - Dec 9th
- 218 responses to the in-course survey, 36 responses to the content discovery survey
- Follow up interviews conducted with subset of respondents

MX/PP Experiment

- Conducted from Nov 13th - Jan 28th
- 1,104 responses to the survey, 3 responses to the content discovery survey

Kicking off the beta launch!



Product Manager

AI Assistant Limited Beta Launch with Customers

We are excited to announce the launch of AI Assistant with 4 trusted UB Customers starting today! Our goal is to gather customer feedback and make updates before launching AI Assistant with all UB customers later this year.

Please note that this information should not be disclosed more broadly yet. We will follow up with more information regarding external messaging once it is available.

Where will the AI Assistant be available for these select customers?

The AI Assistant will be available on the UB logged-in homepage to provide course recommendations. It will also be available within the courses of select instructors who have given us their permission to use the assistant within their courses.


How will we collect feedback and conduct research?

We will use the in-product tool Pendo to collect feedback through a survey. After collecting survey responses, we will conduct interviews and a diary study with a subset of UB learners who completed the survey.

Some questions that we hope to answer through this research are:

- How does the AI Assistant impact the learning experience?
- How satisfied are learners with response quality?
- How effective is the AI Assistant in guiding learners to the right content?
- When do learners feel inclined to use UdeMy's AI Assistant vs other AI tools?
- What questions do they send to the AI Assistant vs instructor Q&A vs other AI tools?
- When do learners use the AI Assistant vs other search experiences?

We're excited to learn how this new tool impacts learning and will share more once the beta and research analysis have concluded.

 **A HUGE shoutout to all of the teams who have worked tirelessly to make this beta launch happen!**



24



19



16



CTO

Great milestone, team! So exciting this is ready to go to customers!

Looking forward to hearing their feedback



4



New

How did Udemy Business learners interact with AI Assistant?

“In-course” top themes

- Concept clarification and explanation
- Searching lectures for a specific skill or topic
- Code debugging / seeing example code
- Summarization and note taking of lectures

“Content discovery” top themes

- Finding courses that will help them with or transition to a career path
- Finding certification exam preparation content
- Searches for the best, top, or most popular courses for a skill/concept

Name	Capability	User Message Input
		What courses should I take to get an AWS cloud certification?
		what helps me create a robot with human skills
		what is a good course for creating a Power Point presentation
		what is a good course on understanding and utilizing Microsoft Teams efficiently
		what is AI machine learning about
		what is Generative AL about
		What is the best course for preparing for the CKA (certified Kubernetes administrator) exam?
		what is the highest rated course in each category
		what is the highest rated course under 6 hours in each of these categories
		what is the top rated class in client acquisition and retention?
		What professional certificates are available
		what the best course for learning about Data Cubes
		where to print my certificate of completion
		which AI is used in Engineering
		Why doesn't my course reflect completion when I have finished the course?
		Wirecast
		yes
		Yes
discovery_chat		Yes I would like to learn more about it
in_course_chat		1 + 1 is what
		applicable to 2024 PMI Exam?
		are these the 5 modes DES can encrypt daata with?
		assign a value from groovy script test step to test suite custom property?
		Can I see that you can create a database in Azure, but can you do this in Databricks?
		Can you compare GIS to another familiar concept?
		Can you explain ADF?
		Can you explain the fundamentals of Certified Kubernetes Administrator (CKA)?
		Can you explain the fundamentals of Data Structures?
		Can you explain the fundamentals of FinOps?
		Can you explain the fundamentals of PL-200: Microsoft Power Platform Functional Consultant Ass

In Course UB Experiment Feedback

Udemy Business learners shared overall positive feedback on usefulness, quality, ease of use, and value of AI Assistant

N = 314

Key Takeaways from Open Text Responses:

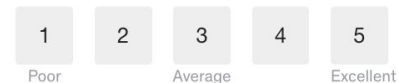
- Provide the ability to hide or disable AI Assistant
- Make AI Assistant “optional” / don’t force it
- Consider allowing users to select their preferred default tab or remember the tab they left off on **implemented**

How helpful or unhelpful was the AI Assistant in supporting your learning needs?



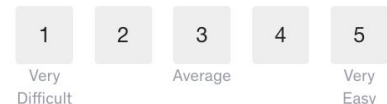
60.1% rated Helpful/Very Helpful

How would you rate the quality of the AI Assistant’s response(s)?



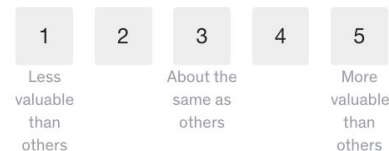
59.5% rated Good/Excellent

How easy or difficult was it to use the AI Assistant?



64.4% rated Easy/Very Easy

How valuable is the Udemy AI Assistant as a learning resource for you, compared with other AI learning assistants you’ve used?



61.7% rated Valuable/More Valuable

Content Discovery UB Experiment Feedback

Response helpfulness, relevance, and effectiveness ratings were very split — indicating inconsistent experiences across learners

N = 51

Key Takeaways from Open Text Responses

- Majority of respondents felt that the CD assistant did not provide enough recommendations
- Learners want the CD assistant to better understand context of their requests and refine the recommendations when they adjust their queries
- Some learners encountered incorrect or incomplete results in the CD assistant (*e.g., it provided less than the default 3 recommendations or they asked for a specific number and it still provided 3 with no explanation*)
- Learners often perceived the limitations or guardrails in the CD assistant as bugginess or inability to understand their requests

How helpful or unhelpful was the AI Assistant in finding the right content for your learning needs?



30.6% rated Helpful/Very Helpful

How effective or ineffective was the AI Assistant in explaining its content recommendation(s)?



29.2% rated Good/Excellent

How relevant or irrelevant was the AI Assistant's content recommendation(s)?



29.4% rated Relevant/Very Relevant

How easy or difficult was it to use the AI Assistant?



45.2% rated Easy/Very Easy

The number of results recommended by the AI Assistant was:

- Too little
- Just right
- Too many

28% rated Just Right

Personal Plan / Marketplace Survey Results

PP/MX learners had strong negative reactions to not being able to hide or disable AI Assistant – this heavily influenced their response ratings

Total N = 1,040 (across 2 experiment iterations)

Key Takeaways from Open Text Responses:

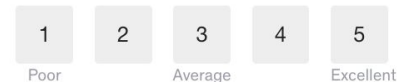
- Learners want AI Assistant to be secondary to the Course Content list
- Some learners want to be able to completely turn off the assistant, if they're not interested using in AI
- Several learners remarked that AI Assistant responses didn't provide more information beyond what a google search or external AI Assistant could do — *it didn't feel worth the distraction and use of screen real estate, as a result*

How helpful or unhelpful was the AI Assistant in supporting your learning needs?



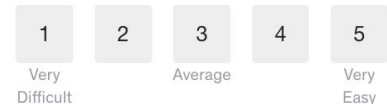
18.2% rated Helpful/Very Helpful

How would you rate the quality of the AI Assistant's response(s)?



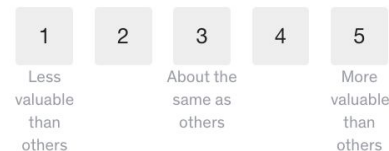
19.2% rated Good/Excellent

How easy or difficult was it to use the AI Assistant?



27.0% rated Easy/Very Easy

How valuable is the UdeMy AI Assistant as a learning resource for you, compared with other AI learning assistants you've used?



15.3% rated Valuable/More Valuable

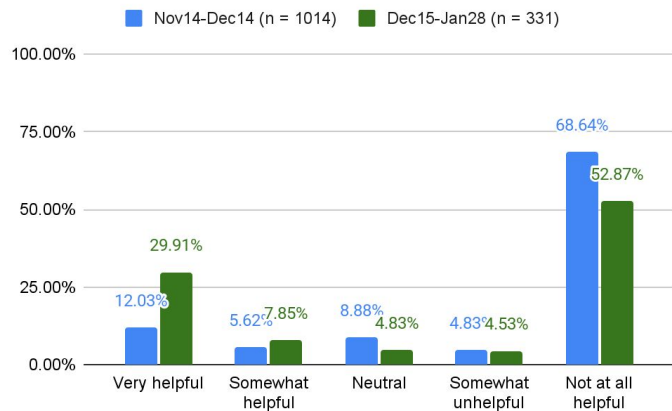
Researcher Recommendations

- Remember learner's interactions and keep them on the tab they left off on when they return to the course **Implemented**
 - *Why?* Some learners perceive the AI Assistant as a "window" that should remain closed if they click out of it - either because they're not interested in it all or they use Course Content more often and find the extra click annoying
- Provide an option for learners to disable or hide AI Assistant if they don't want to use it all
 - *Why?* Several respondents expressed frustration and annoyance that they can't turn off AI Assistant entirely - they are given no choice to opt out, unlike instructors and admins
- Provide clearer explanations for why AI Assistant is unable to complete a certain task, instead of repeating the same out-the-box explanation
- Suggested Feature Improvements
 - Save AI Assistant responses to Notes
 - Resolve issues with transcript autoscrolling
 - Don't show courses learner has already completed in AI recommendations

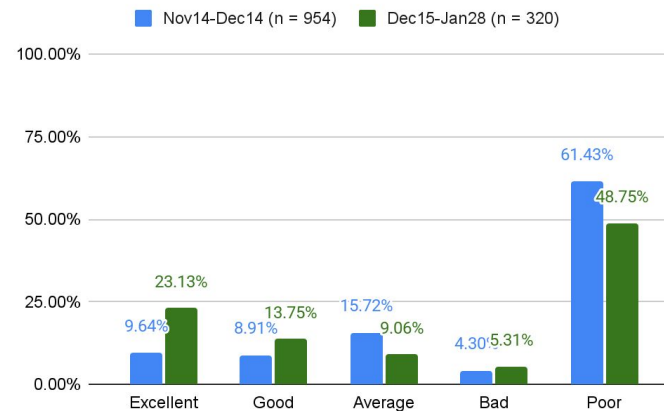
PP/MX Experiment Comparison

On December 15 2024, the team introduced a fix that remembered the last tab the user interacted with, based on the research insights. This fix led to a decrease in the volume of negative open-text responses and more self-reported satisfaction with the feature.

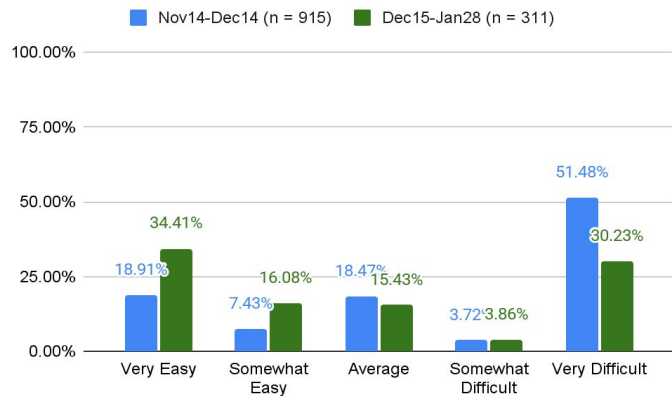
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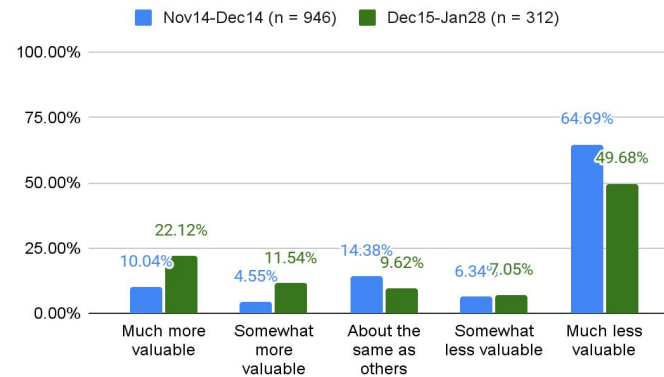
How would you rate the quality of the AI Assistant's responses?



How easy or difficult was it to use AI Assistant?



How valuable is the UdeMy AI Assistant as a learning resource for you, compared with other AI learning assistants you've used?



Product manager factoring survey results into experiment planning



Product Manager

replied to a thread: **Hi everyone! I've been working on segmenting our qualitative experiment feedback so we can granularly compare feedback...**
thank you for pulling this together [@katherine.okpara](#)!

1. Really helpful to see how the tab retention change improved the learner sentiment in Mx/PP. However, it also decreased the number of responses in the survey. I am guessing our feedback count will reduce even further since AIA will be more hidden now.
 - a. Would be curious to see how this new iteration changes the Mx/PP sentiment 💡
2. Especially interesting to compare the feedback to UB with the same initial user experience. UB users found it more easy to use and helpful and had way less negative sentiment to the tab change.
 - a. One of the major reasons could be that since UB users don't pay for Udemy on their own, they could be more tolerant towards new experimental features. Whereas Mx users demand more intentional changes to their learning experience.
 - b. cross-functional partners this difference in D2C and UB behavior is an important insight for us to inform our experiment/rollout strategy for the new Course Taking experience.

Additional Insights about Udemy Learners

How do Udemy learners find course content today?

- Take courses assigned by their company
- Search in Udemy for specific skills or certifications
- Follow specific instructors after previously taking their course or hearing about it from another source
- Get recommendations from friends or coworkers who have taken courses





What information do Udemy learners use to evaluate content?

Primary factors

Rating

Reviews

Overview of key topics covered in the course

Length of the course

Understanding of key skills they will gain at the end

Secondary factors

Will they get a badge or certification?

What details are available about the instructor?

Does the course include practice materials such as quizzes and labs?

What prerequisite knowledge do they need to take the course?

Additional considerations

Level of engagement from instructors and resources provided can influence the perceived value of the course – *especially for Personal Plan learners*

Learners often check for a preview or demo of the course to gauge content before enrolling

The ‘Course Content’ list is highly important to learners

It helps them plan their learning sessions and stay motivated to complete the course

“

“It creates the learning map in your mind, the overall picture of the path you need to follow - I plan accordingly and determine how much time I can spend here...If there's a way to toggle I can do that, but I still need to be able to see it.”

P1, Course Content First group

“

“Unless I see the course content, I would not be able to see my progress so I cannot figure out how many sections are there and what is the progress I'm making”

P6, AI Assistant First group

“

“It's like a motivation - like the moment you accomplish a task and you go for a pizza with friends or go for a drink. You know that you've completed something, you're in the middle, or you're about to complete a specific task or course. You've built X number of projects...all helpful”

P4, Course Content First group



Learners progress through content in different ways

Majority of participants in this study were “Linear” Learners

“Linear” learners

Learners who tend to complete courses in a step-by-step manner, one module at a time – typically in planned study sessions

They need to get a solid overview of what to expect from the course and keep track of progress

"Popcorn" learners

Learners who are more oriented around what they're curious about – they skip and jump around to what they need (thus "*popcorning*" throughout the course)

They need to be able to easily scan for relevant content and pinpoint what requires their attention



💡 Udemy learners need to build trust in AI Assistant before relying on its recommendations

They need to understand how *and* why AI Assistant recommends content to fully assess the quality of its output

Why? They want to feel confident that they've considered all relevant options before enrolling in a course



Quotes: Building trust in AI Assistant

“When using the search bar and it comes up with the AI Assistant option, I was pleasantly surprised it still did the search as usual, and brought the search page up. I was kind of expecting it would just take me to a brand new page and that's what I'd have to rely on. **Coming onto this page is useful, at least until we can fully trust that the AI is sensible.**”

- P3, Digital Project Manager

“After seeing these [AI results] and seeing the list of courses below, **I'd probably be checking what would happen if I write *Javascript beginner* [into the search bar]**. Would it be the same results as this or not? Because I would want to kind of test if the AI is actually useful, or if it is just quoting a search I could've done on my own. I like AI, I use it, but I'm not a *fan* of AI. So I use it when it brings actual value that I couldn't do on my own. **It has to prove it to me.**”

- P6, Network Engineer

Ability to trust AI Assistant is critical for adoption by learners

Initial impressions of accuracy and quality of responses can make or break this experience

“

“I keep in mind that these AI bots can provide misleading information or incorrect information. I **double check and verify the information** before I use it in any way” - P5

“

“I would try searching at least 3-5 times, for the *known* topics, to test it. If that gives me the appropriate results and correct responses, I will get an understanding that ‘okay, this AI can actually help’ and then I would go and actually ask my questions for which I *don’t* know the answer” - P6

“

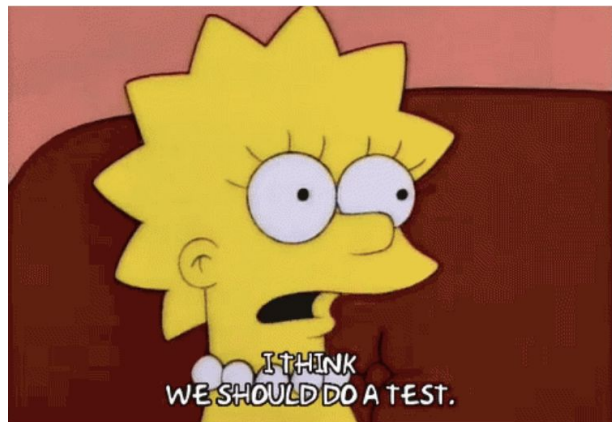
“[While finding content] coming onto the search page and *seeing* the full results is useful, **until we can fully trust AI-recommended results.**” - P3



How do learners take Udemy quizzes today?

- Learners leverage quizzes as a knowledge check to ensure they're retaining information as they progress through the course
- They prefer to focus on completing the quiz all the way through before checking answers
- They tend to seek additional practice for technical or skill-oriented courses and those associated with certification exams – *commonly using resources such as coding challenge websites, textbooks, and certification practice exams*

⚠ Majority of participants feel that the current quiz UI is easy to use but they'd like it to be more engaging and consistent in the quality of the questions



Why quiz question quality matters, in their own words

"[Quiz quality level] is all different in different courses. I found some courses are very easy, some courses are difficult, and the number of questions could be a bit more. **The tutors or the material owners who are putting those quizzes in can probably put in a bit of more thought in terms of checking the fundamentals of what the student is trying to understand.**

Are they understanding properly rather than just putting straightforward questions. **What are the questions that make you think before you answer rather than just a straightforward, theoretical list of questions."**

- P3, Project Manager

"There's a course I took a few years ago that I found a little hard to follow. Just normal **cultural differences** and things that are different in terms of reference. And that **really did bleed into the quiz**, because obviously it was written by the course provider. **I remember stopping at halfway through just because I thought these questions aren't relevant or they're difficult to understand.**

I know it's a quiz based on the course material but **I wonder whether there's some standard that could be implemented**, using what's commonly known as plain English. But then that would probably need to be moderated."

- P6, Business Analyst

"I think the quality of questions really plays a role in the ideal length of a quiz. And it depends on the level of the course itself. The deeper the level, the more advance the question. **I think it's a good idea to categorize the questions based on the level of the course itself. So if it's going to be an easy course, I think AI Assistant will try to direct some questions related to easier constraints of the question.**

There are no wrong or right answers in how Udemy tries to make the question, but they should try to categorize accordingly."

- P5, Infrastructure Engineer



What types of questions are most helpful in quizzes?

Learners need questions that are challenging enough to make them think, but not too overwhelming

💬 Learners feel most motivated to complete a short multiple choice quiz that balances practical and theoretical questions

💬 They also want more scenario-based, multi-select, or ranking questions that enable them to practically apply knowledge

⚠️ While multiple choice questions are seen as the easiest to complete, learners acknowledge that they're not all created equal — some are poorly written or very easy to pass using process of elimination

🧠 For an hour of course content consumed, a 10-question quiz feels appropriate for the majority of participants - *less if the questions are relatively difficult or time-consuming*

"It depends on the nature of the thing that you've been learning about. **A lot of the time, it's easier to get through a multiple-choice quiz because it's not an exam. It's to see if you've retained, and it's an indicator rather than a sort of certification.** But in a lot of cases that makes it easier to pass."

- P6, Business Analyst

"I like multiple choice because I do think that it challenges you. *But* you can kind of eliminate some of the answers. **I like to see some select all that apply types, because I think those challenge you a little bit more. You really have to think through each one.** I feel like I learn more from those if I get them wrong."

- P2, Nurse in Healthcare

"I dread when the course content is very long. I tend to not want to engage with that. 10 questions in a quiz is good enough for me.

Keep it short, keep it light, keep it informative."

- P1, Software Engineer



Quizzes are very helpful. Especially when you're a programmer and you need to practice to see some level of understanding. And just to challenge your mind and see, *are you actually getting what this person is talking about?*

In my workplace they trust Udemy so much. So it's a go-to place. If they want you to upskill yourself, Udemy is the place.

I've been fortunate enough to engage in the courses that after each session there's a quiz. *I think that's amazing cause then you're not just sitting through the course like a robot.* After each section, you get to test yourself. How much do you understand? And I like the fact that at the end of the quiz you can see, okay, *where did I go wrong?*

- P1, Software Engineer based in South Africa

Concept Testing Findings



Learners expect homepage entry points to lead to a new window or page

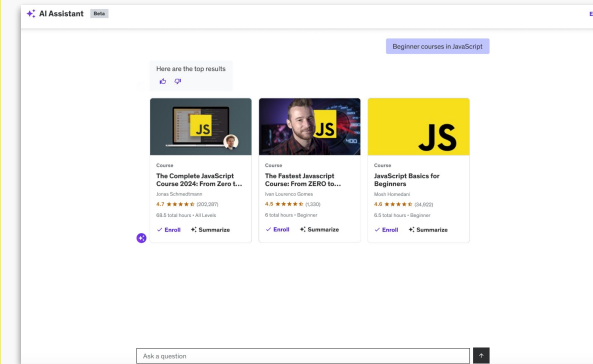
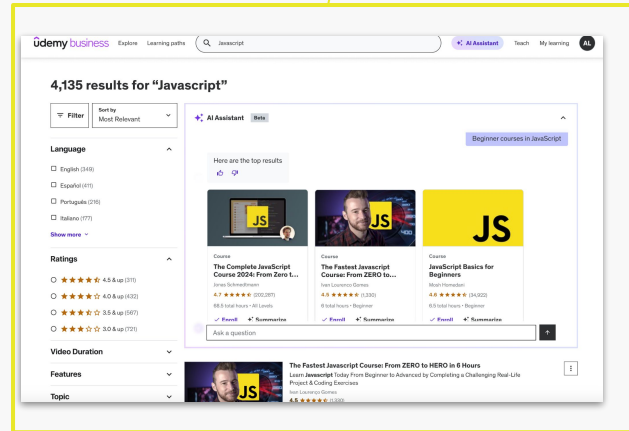
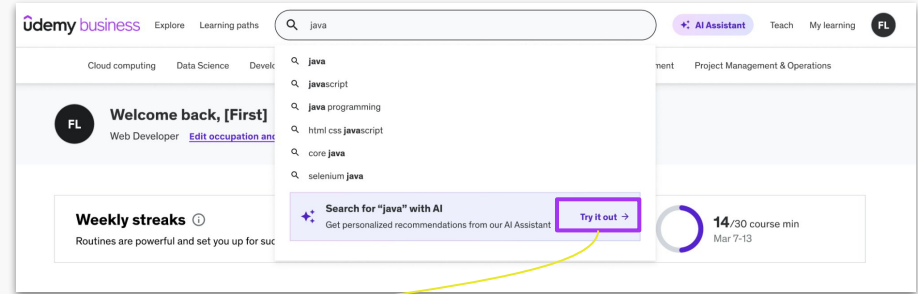
- Participants expected to see a chat window open up in a new view, after clicking on the homepage AI Assistant entry points — not inline on the homepage
- Expectations varied on whether this new “view” would be a separate tab or a window on the same page

The screenshot displays the Udemy Business homepage for a user named Alex, a Web Developer. The AI Assistant feature is highlighted with a purple box in the top navigation bar. Below the navigation bar, the user's profile is shown with a welcome message and a link to edit their occupation and interests. The main content area includes a 'Weekly streaks' section showing a 6-week current streak and 14/30 course minutes completed. Below this is a 'Pick up where you left off' section with three video thumbnails for a course on Machine Learning. At the bottom, a 'What to learn next' section is highlighted with a purple box, featuring a chat interface with the AI Assistant. The chat interface includes a header 'AI Assistant' with a 'Beta' tag, a question 'What can I help you with today?', and a sub-header 'Get personalized recommendations with help from our AI Assistant.' Below this are four suggested questions: 'Best courses for advancing in [occupation]', 'What are the best skills to learn for [occupation]?', 'What are the best courses to upskill in [topic]?', and 'How can I improve my [topic] skills?'. At the bottom of the chat interface is a text input field with the placeholder 'What do you want to learn?' and a send button.

💡 Learners' expectations shifted for the Search Page entry point

💡 Learners expected AI recommendations to be integrated into the search page so they can evaluate them alongside search results

💡 An "in-line" module on the search page better aligned with the expectations of the majority of participants



“In-line” Concept Feedback

Pros

✓ Feels more integrated into the UI and context of the other search results
(makes it easier to compare and contrast recommendations)

✓ Collapsible UI is a highlight – it can be minimized and leveraged when needed

Cons

➖ The page could become cumbersome to scroll as the AI Assistant conversation grows longer

Learner Questions

💬 Would selected filters be incorporated into AI Assistant?

💬 Do selected prompts change the results on the rest of the search page?

The screenshot shows the Udemy Business search interface for 'Javascript'. The search bar at the top contains 'Javascript' and the 'AI Assistant' button is active. The main heading displays '4,135 results for "Javascript"'. On the left, there are filter panels for 'Language' (English, Español, Português, Italiano) and 'Ratings' (4.5, 4.0, 3.5, 3.0). Below these are panels for 'Video Duration' and 'Features'. The main content area features an 'AI Assistant Beta' overlay with a 'Beginner courses in JavaScript' filter. It lists 'Here are the top results' and shows three course cards: 'The Complete JavaScript Course 2024: From Zero to...', 'The Fastest JavaScript Course: From ZERO to...', and 'JavaScript Basics for Beginners'. Each card includes the instructor's name, rating, and enrollment options. At the bottom, a search bar for the AI Assistant is visible with the prompt 'Ask a question'.

“Standalone” Concept Feedback

Pros

✓ More streamlined with less information to process (*lowers the cognitive load*)

Cons

➖ Learners are hesitant to immediately put their trust into AI recommendations so they want to see more information

➖ Feels separated from the context of searching (*need to click “Exit” to get back to that view*)

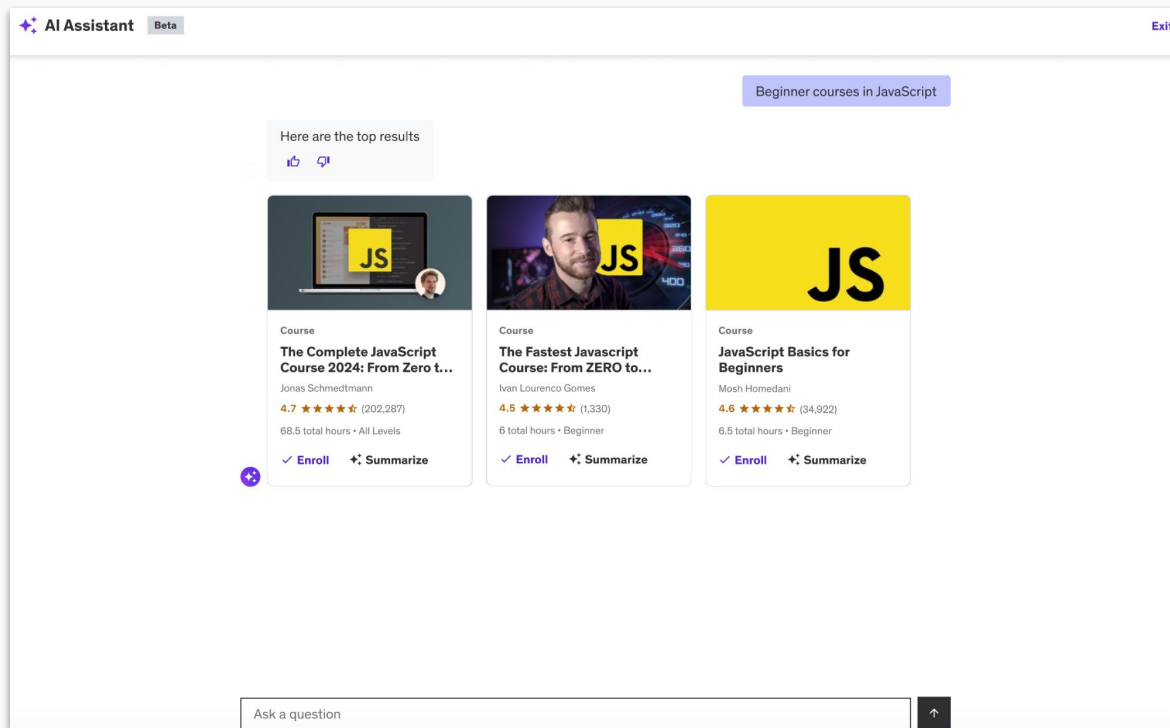
Learner Questions

💬 Why are only 3 “top” results shown? What makes them the “top”? Can I ask for more?

💬 Can I still see more prompts from this point?

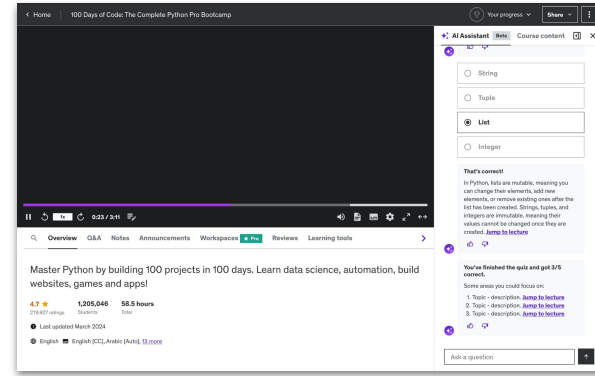
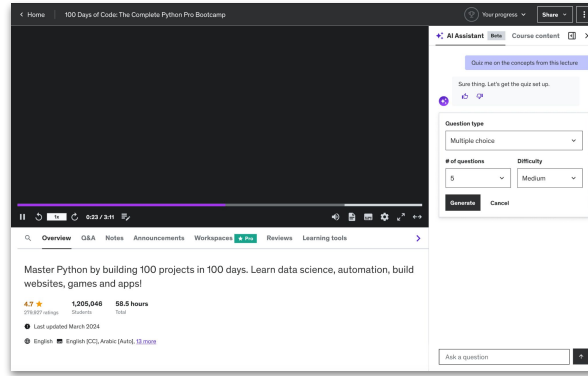
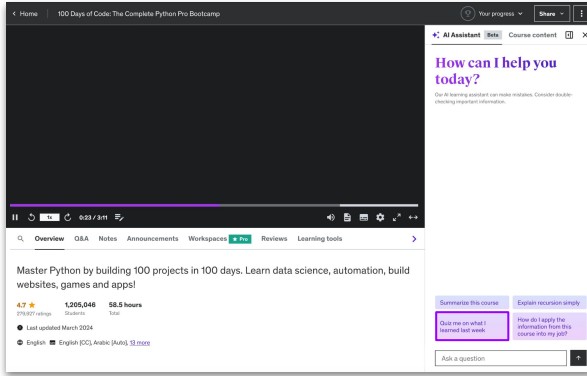
💬 Would exiting the AI Assistant erase the conversation?

💬 Is it possible to see this as a smaller window?



Early AI Assistant Quizzes Design Concepts

Participants explored design concepts in a Figma prototype





Summary of participant feedback on the AI Assistant quiz experience


Highlights

- Clear and easy-to-use interface
- Ability to select a difficulty level for the quiz was a highlight feature - *especially for learners who are studying for certification exams that require more thorough testing*
- Having “Jump to lecture” in the results makes it easy to review content and understand mistakes
- Participants are comfortable taking the quiz within the AI Assistant window
- AI Assistant quizzes can be helpful for standardizing quality and tailoring the questions to their learning needs


Questions from learners

 Can I choose multiple types of questions in a single quiz?

 Will this quiz me on all the content in the course or just what I've seen *so far*? Can AI Assistant tell the difference?

 Can AI Assistant quiz me on concepts from *any* course I've taken or is it specific to one course?

 Where do results from AI Assistant quizzes live?

 What does the thumbs up/down feedback mean in the context of a quiz?

Ability to select a difficulty level for the quiz is a highlight feature

"This is really, really good. It means I'm trying to test myself in a specific area, specific learning topic, or a specific lecture and not just generalize everywhere...It could be medium high, low, whatever it is. **That is really going to be a game changer, because that's going to really test my learning capability and my learning so far.**"

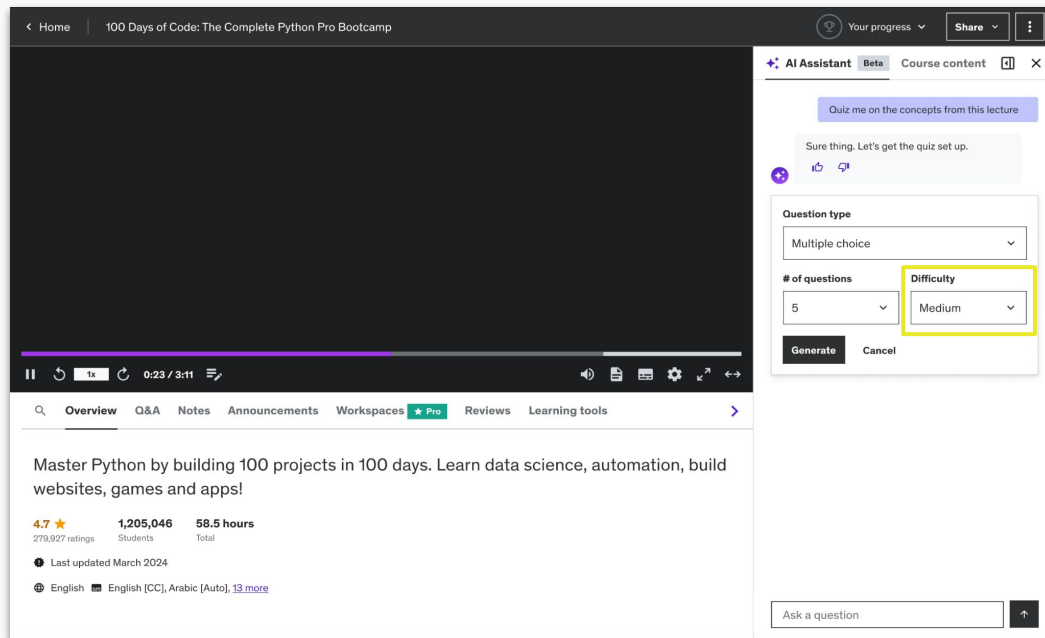
- P3, Project Manager

"I probably would start off with a mix of 10 questions and I would change the difficulty level. **I'd try multiple quizzes with different difficulty to see how well I'm mastering the subject.**"

- P2, Nurse in Healthcare

"It makes me feel like I'm **more in control of my learning.**"

- P1, Software Engineer



The screenshot shows the Udemy AI Assistant interface. The main content area displays a video player for the course "100 Days of Code: The Complete Python Pro Bootcamp". Below the video player, there are navigation tabs: Overview, Q&A, Notes, Announcements, Workspaces, Pro, Reviews, and Learning tools. The main text reads: "Master Python by building 100 projects in 100 days. Learn data science, automation, build websites, games and apps!". Below this, there are statistics: 4.7 stars (279,927 ratings), 1,205,046 students, and 58.5 hours total. It also indicates it was last updated in March 2024 and is available in English and Arabic (Auto).

The AI Assistant panel on the right is titled "AI Assistant Beta Course content". It contains a button "Quiz me on the concepts from this lecture" and a message: "Sure thing. Let's get the quiz set up." Below this, there are settings for the quiz: "Question type" set to "Multiple choice", "# of questions" set to "5", and "Difficulty" set to "Medium". The "Difficulty" dropdown is highlighted with a yellow box. There are "Generate" and "Cancel" buttons at the bottom of the panel.

💡 “Jump to lecture” makes it easy to review content and understand mistakes

“I like that at the bottom of it, where you can jump to the lecture associated with the areas that you need to focus on. I've struggled with that before. **I remember a few mock tests I've done for things in the past that didn't have this sort of AI functionality** and then trying to cross reference it with the textbook.

It becomes a real pain.”

- P6, Business Analyst

“Seeing what went wrong and ‘jump to the lecture’ is awesome. Really cool feature to have. You don't need to go and identify from where the question came – you're actually automating that for the user. **It's going to save a lot of time.**”

- P3, Project Manager

Home | 100 Days of Code: The Complete Python Pro Bootcamp

Your progress | Share

AI Assistant | Beta | Course content

String

Tuple

List

Integer

That's correct!

In Python, lists are mutable, meaning you can change their elements, add new elements, or remove existing ones after the list has been created. Strings, tuples, and integers are immutable, meaning their values cannot be changed once they are created. [Jump to lecture](#)

You've finished the quiz and got 3/5 correct.

Some areas you could focus on:

1. Topic - description. [Jump to lecture](#)
2. Topic - description. [Jump to lecture](#)
3. Topic - description. [Jump to lecture](#)

Ask a question

Overview | Q&A | Notes | Announcements | Workspaces | Pro | Reviews | Learning tools

Master Python by building 100 projects in 100 days. Learn data science, automation, build websites, games and apps!

4.7 ★ 279,927 ratings | 1,205,046 Students | 58.5 hours Total

Last updated March 2024

English | English (CC) | Arabic (Auto) | 13 more



Participants preferred the dropdown menu design for generating a quiz

"From my perspective, when it comes to consuming content, **I would like to consume the content as soon as possible.**

If you're trying to show explanations, [Concept 2] can be helpful. If you're just trying to show key parameters, [Concept 1] is a good idea."

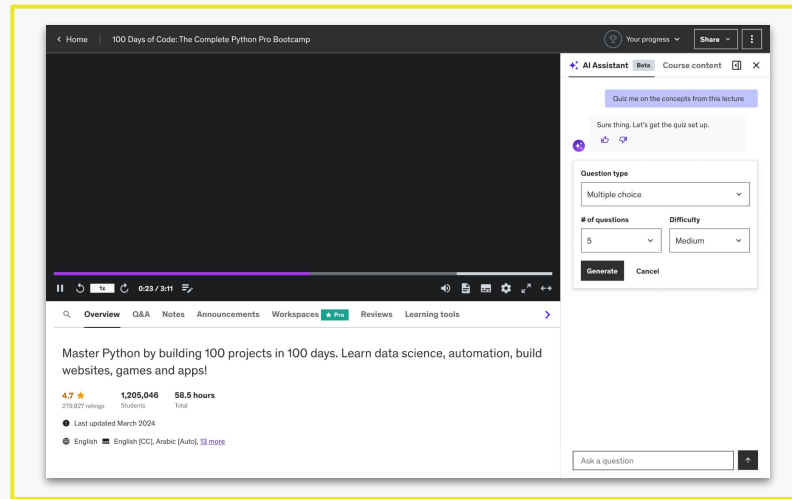
- P5, Infrastructure Engineer

"I prefer the dropdown mostly because you can see all the options before you've selected an option. So **you can almost see 'down the tree'** if you like. Give me all the information and I'll make the assessment."

- P6, Project Manager

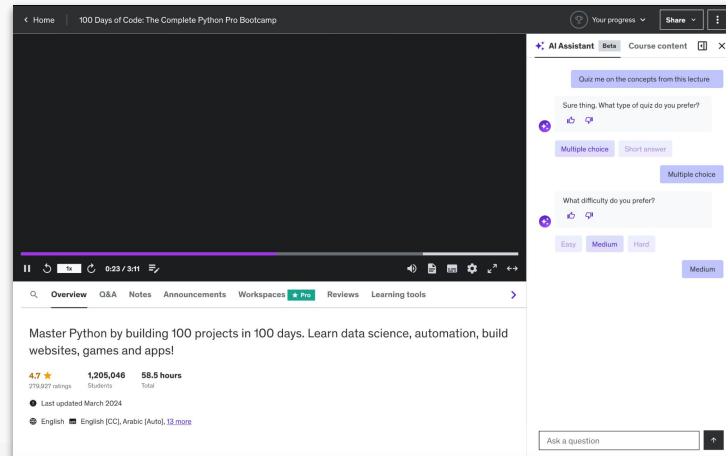
Concept 1:

Dropdown selection menu



Concept 2:

Conversational approach

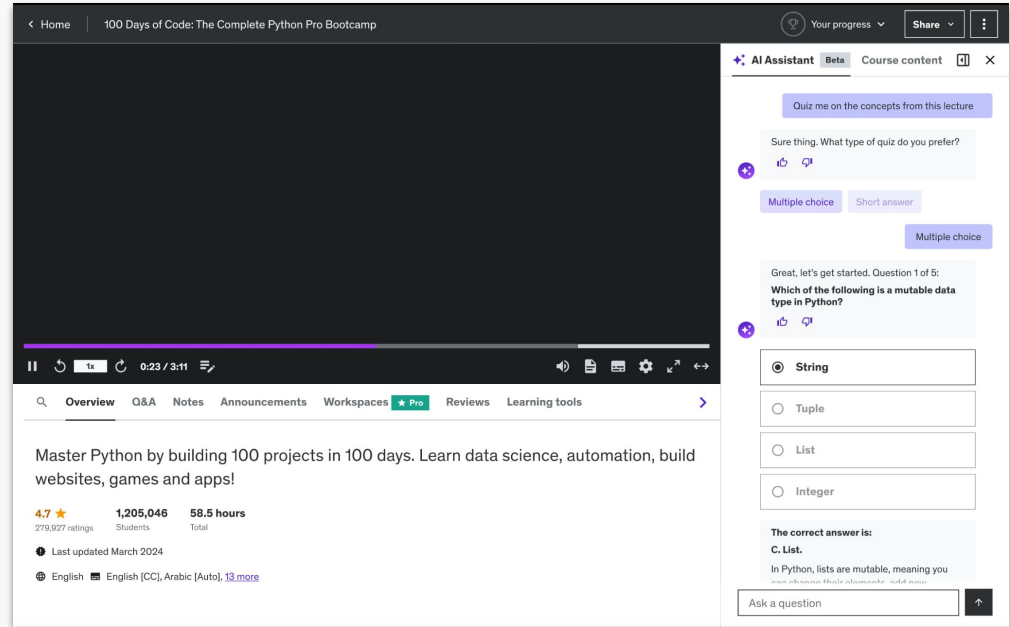


💡 Participants are comfortable taking the quiz in the AI Assistant window

💬 Generally, they prefer to focus on taking the quiz all the way through before checking answers or reviewing content

💬 They'd pause the lecture while taking the quiz and resume after it is completed

💬 They are also open to seeing the AI quiz displayed in the video player (*similar to the current experience*) — **especially if the questions are lengthy or require more space to input responses**



The screenshot shows a Udemy course page for "100 Days of Code: The Complete Python Pro Bootcamp". The course has a 4.7 star rating, 1,205,046 students, and 58.5 hours of content. The AI Assistant window is open on the right, displaying a quiz question: "Which of the following is a mutable data type in Python?". The options are String, Tuple, List, and Integer. The correct answer is List. The AI Assistant also offers options for "Multiple choice" and "Short answer" quiz types.



There should be quizzes in almost all the materials. That's what my solution is. And that's to check where you really stand. It's not stopping you from continuing with the course. It's not an instructor-led training. It should just be there for every material just to do a self check. It should be structured so that it appears at least after 30 to 40% completion of the section, so it gives you a bit of foundation in terms of what you have learned and understood so far.

Some people might be thinking they're actually going through the course but they're not actually following anything. The quiz should be a good self check, a good reminder. I think this should be made more common.

- P3, Project Manager based in Australia

Additional Insights about Udemy Instructors



Managing Q&A is a time-consuming challenge for instructors

- Instructors who have multiple courses in the UB catalog manage numerous questions a day, across various courses
- Investing time into Q&A can be a pain point since they aren't directly compensated for it – but they risk negative reviews if they don't respond
- **Instructors see AI Assistant as a *partner* for helping them manage Q&A and keeping learners engaged with courses**

“When you have, say, three or four hundred thousand students and even *half* of them post one question in the entire course, related to anything. **It can take years to answer all of them.** It is practically not possible to answer each and every question.”

- Udemy Instructor, Cloud computing



Instructors use questions and reviews to improve course quality

- Though instructors think AI Assistant will be beneficial for managing Q&A, **they still need visibility into the types of questions learners are asking**
- **⚠️ A digest or report of the most common questions and areas of confusion in a course will be needed as a product feature to help instructors**

“The questions that people ask for courses are very valuable when we make a course update. **At some point, when we are about to update the course, I look at all the questions that people asked to get an idea of how the course can be improved.** And the same is valid for reviews.”

- VIP Udemy Instructor, Dev



Instructors want to prioritize questions that specifically require *their* knowledge

Generic Q&A examples

- Explanations and additional examples of how referenced technologies or services work
- Deeper insight into concepts that were mentioned but not covered in detail in a course
- Outlining the steps it takes to complete a task
- Troubleshooting errors or resolving technical difficulties

Instructor-specific knowledge examples

- Difficulty reproducing a result shown in the video or performing specific tasks in a lab environment
- Catching mistakes that happen in the course (e.g., missing files, typos in a quiz, etc)
- Questions about use cases or images shown on the screen (e.g., *Why use Cloud Functions for the use case you showed instead of App Engine?*) —
We are considering unlocking this by sending video images to the AI Assistant as context
- Clarification about a nuanced distinction between concepts (e.g., why is “A” a better option than “B” in a quiz)

Instructor feedback on the in-course AI Assistant prototype experience

Highlights 🌟

- 'Uninterrupted' learning – learners can easily get help while staying in the context of the course
- Response length felt appropriate
- Explanations (shown in prototype) were accurate
- Responses were contextually relevant
- Redirecting to Q&A is a favorable feature

General Concerns ⚠️

- AI Assistant should not share *personal* information about an instructor
- AI Assistant should not provide false or inaccurate responses
- The small width of the AI Assistant window might not signal to learners that it can handle complex code queries – *readability might also be impacted as the conversation grows longer*
- Cost to Udemy should be considered: *Should there be a limit on the number of questions asked in a session? Overall?*

“

[Some hallucination] is okay as long as it's not like 1 out of 10 times. In this case **the the benefit outweighs the costs significantly**. In the process of learning, even if the AI hallucinates and gives you a wrong answer, at some point you go down the road and you'll find out it wasn't actually true, *if you continue learning*. But the risk is that, if you don't have a tutor who can respond to you in real time, you get discouraged and you don't learn anything at all. So I think even the hallucination part isn't that scary. **The scary part is if they give up.**

- **VIP Udemy Instructor**

Quiz Guidance Insights

✔ Instructors see AI guidance on quizzes as a helpful improvement for both learners and instructors

- **Why?** AIA can help to fill the gap in adding explanations and links to lectures for concept review → *Instructors often skip these steps because they become time-consuming as their audiences and number of courses increase*
- **Why?** Through rigorous testing, they've observed that AI tools more reliably generate accurate explanations than quiz questions → lower risk of hallucinations

⚠ Instructors strongly advise that AI-generated questions be reviewed by humans before they are shown to learners

- **Why?** AI tools often create questions that look good on the surface but contain mistakes (see next slide)
- **Why?** Some are open to the concept but worry that hallucinations could impact learners' confidence in the course and lead to negative reviews

🤔 **Questions / Concerns from Instructors** Will AIA quiz capabilities impact course consumption minutes? Will AIA show the same explanations to all learners or dynamically generate new ones every time? How will you ensure a consistent quality for all learners?

Instructor Recommendations

For the guidance on quizzes use case:

- Prioritize existing instructor explanations where possible
- Show a standard set of explanations for instructor-created quiz questions (instead of dynamically generating different explanations in “real-time” → make the experience consistent)
- Enable learners to save the AI Assistant explanations to “Notes,” download, or export to a PDF for later review

For the quiz question generation use case:

- Generate a pool or database of questions that instructors can approve or deny – **AI Assistant only will pull from these approved question in the course**
- Give instructors a granular way to opt in or out of new AI Assistant features (e.g., yes to Q&A but no to quiz generation)
- Alternative approach: detach the AI quiz-generation feature from instructor courses so their reviews aren't impacted by question quality; learners could view and interact with AI questions on a wide variety of topics, at various difficulty levels



Quiz Guidance Insights (cont...)

- Instructors caution against AI Assistant providing guidance on practice tests, formal assessments, or certification practice exams that are meant to assess readiness (*quizzes are viewed more as a “knowledge check” to keep learners engaged vs rigorous testing*)
- Instructors currently use AI tools to help them draft quiz questions, then evaluate them before uploading them to Udemy (**AI is seen as a productivity booster, not a replacement for their involvement in the process**)
 - Some upload their slides / course transcripts directly into Chat GPT, generate a large batch of questions, and select the best options
 - Some develop custom LLM AI models using their own datasets
- Common pitfalls of AI generated questions include:
 - Hallucinations (*e.g., generating incorrect answers for the question*)
 - Questions / answer choices that mention the correct answer directly within them
 - Answer choices that are very easy to spot as correct, using process of elimination (*e.g., too long and detailed while others are short or it’s the only one that is a relevant choice*)

Thank you!