

## "Ask Doodle": A User-Centered Approach to Generative AI Integration

## Background

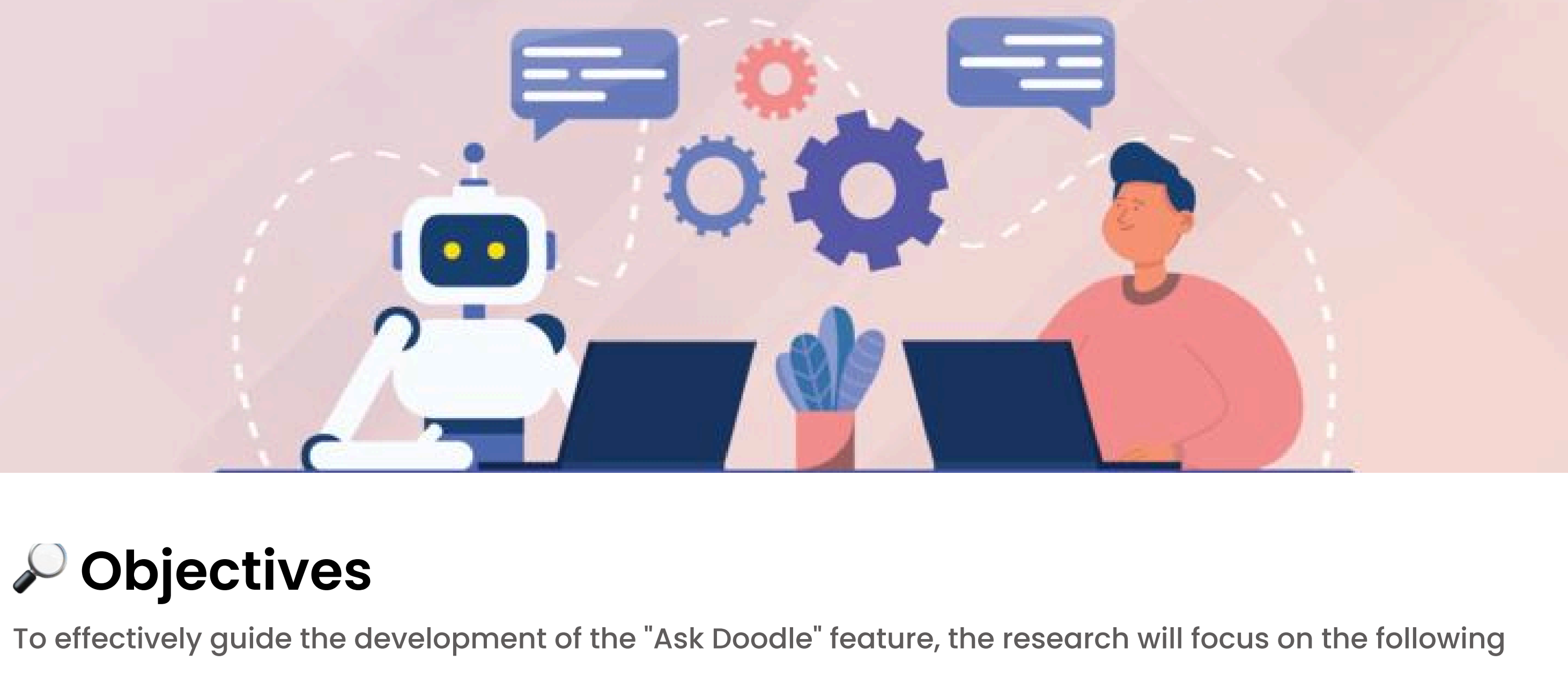
within an AI based writing assistant tool. This enhancement would address evolving user needs and expand the tool's value proposition to support diverse writing workflows.

## scope

Tools

Zoom, C

## Timeline



- Identify user challenges and

- Analyze similar AI-powered writing tools in the market, assess their feature offerings, UI-UX, and uncover gaps that writing assistant tool can uniquely address.

- ## Methodology

- Primary Research : User Interviews

## secondarily Research

- **Focus Area:**

- a. Investigating the preferences and methods users employ during the writing and content generation process. Commonly used tools for writing, generating content, checking plagiarism and AI content detection. Investigating the tools and strategies employed to ensure the originality in the output.
  - b. Exploring the role of different tools for revision in their writing process w.r.t grammar suggestions, plagiarism , and AI content detection
- **Process:**
    - a. Data Collection : We reviewed articles, blogs , academic papers, reports on Generative AI trends in writing
    - b. Analysis : We categorized the gathered in the following sections :
      1. Purpose of using Gen AI
      2. Challenges faced while using Gen AI
- **Key Findings :**
    - a. **General Use case :**
      1. Majority prefer using Generative AI for the purpose of grammar corrections, paraphrasing/refining text and finding gaps in their drafts/ articles
      2. Generative AI is also used to summarize and translate content
      3. Other major use case is content generation/ template generation
    - b. **Challenges faced :**
      1. AI generated content contains hallucinations i.e. some false statements along with accurate information
      2. The generated data maybe outdated
      3. There are challenges in maintaining the integrity standard while using the AI generated content.

- Analyzed features of competing tools like , Grammarly feature and functionality.

- The competitive analysis highlights the writing assistant tool's potential to stand out by addressing gaps such as limited multi-lingual support, absence of fact-checking, and lack of domain-specific recommendations.
- We used the below template for the competitive analysis :
- |                   | WORDTUNE   | GRAMMARLY | QUILLBOT | WRITER | PROWRITING AID |
|-------------------|--|-----------|----------|--------|----------------|
| Feature Offerings | List of features offered by the product.<br><a href="#">Read more about Grammarly's features</a> |           |          |        |                |

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conducted user interviews to de-

approach allowed us to validate preliminary findings, uncover nuanced pain points, and gather actionable insights to inform feature development. For conducting user interviews following points were taken into consideration :

- **Target Audience:** 8 active platform users, including university students and professors, recruited through personalized email invitations
- **Interview Structure:**
  - a. Semi-structured interview guide was used to ensure consistency while allowing participants to provide detailed responses

- c. Interviews were conducted remotely through video calls via Zoom, and each session lasted approximately 30 to 45 minutes
- **Focus Areas:**
  - a. Users' writing workflows
  - b. Current generative AI usage and experiences
  - c. Challenges and expectations from a generative AI feature
  - d. Insights into maintaining integrity and originality while using generative AI
- **Data Analysis:**
  - a. After the interviews were conducted these sessions were transcribed and inferences were written for each transcript
  - b. We did thematic analysis for each interview
  - c. Once all the interviews were conducted , an overall analysis was done and data was organised into common/ unique themes along with Frequency Analysis

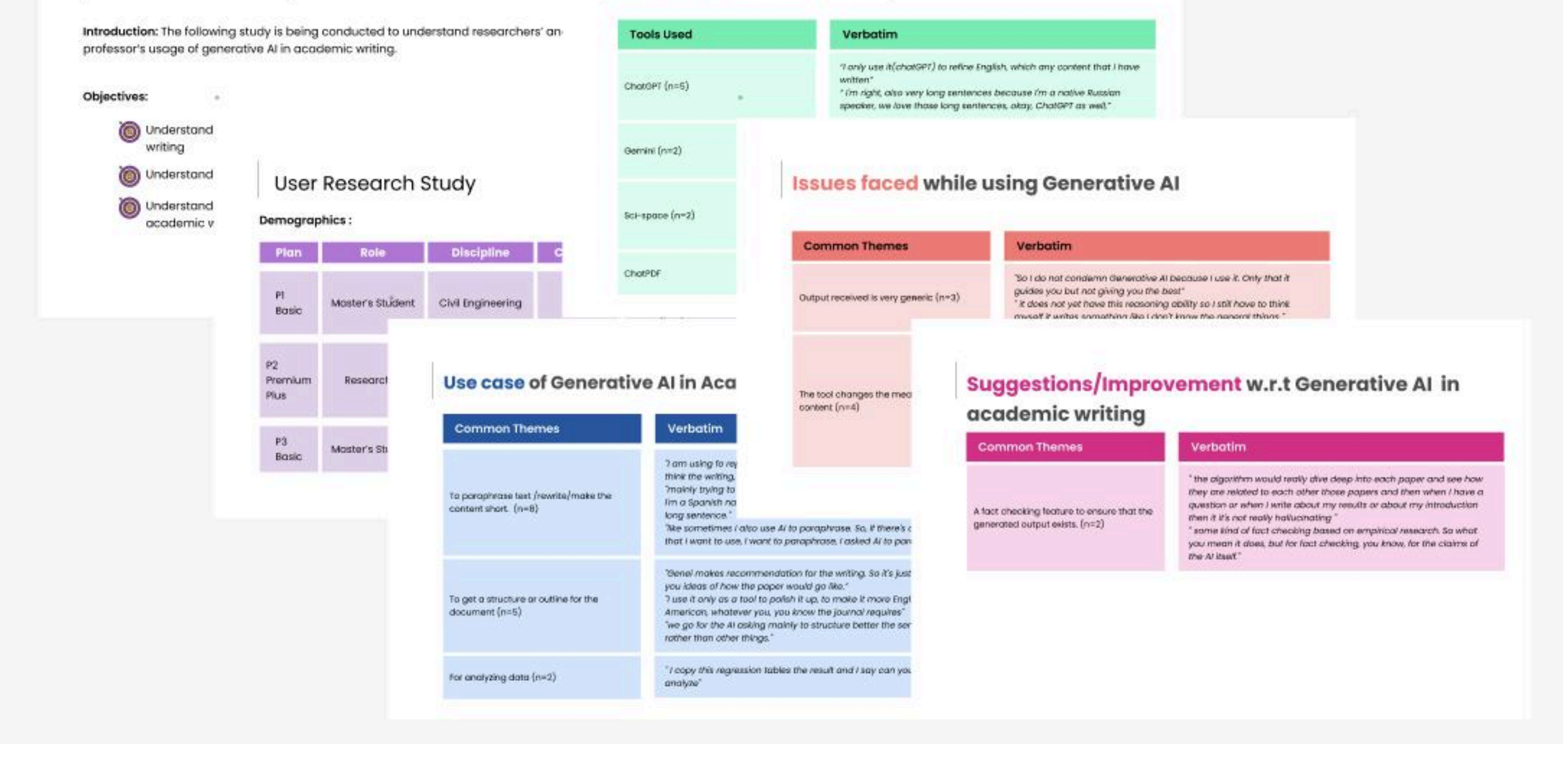
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Following are the insights drawn after doing an o

a. **General Use Case :**

1. Majority of the users used Generative AI for the purpose of refining/paraphrasing their content.
  2. To generate outline/ structure for their drafts
  3. Other use cases include : summarising text, looking for similar topics and finding gaps in their work
- b. **Pain Points :**
1. Accuracy: Concerns about hallucinations in generated content.
  2. Integrity: Changes in the meaning of the content after AI assistance.
  3. Time Consumption: Significant time spent fact-checking AI-generated outputs.
  4. Plagiarism : AI generated content is often flagged as plagiarized
- c. **User Expectation :**
1. Introduce a fact checking feature
  2. Domain specific prompts tailored as per user's area of work
  3. AI models to be trained on variety of data.

User Research Study      Generative AI Tools used by the users



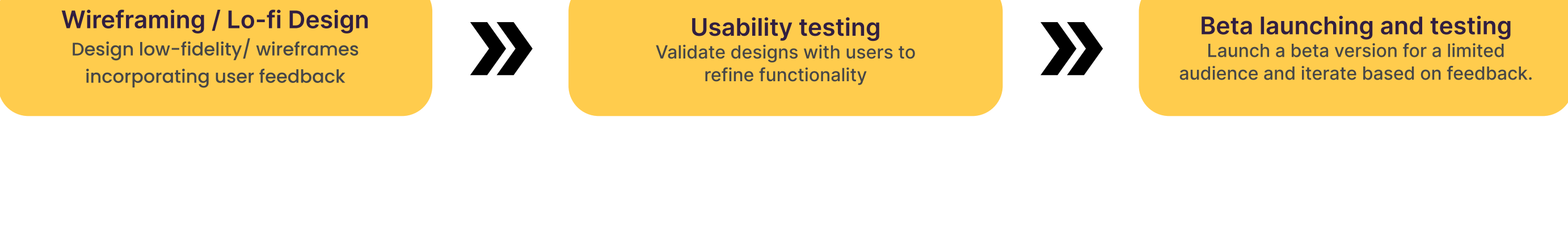
### Outcome/ Impact

Our research led to a deep understanding of user workflows and pain points, resulting in actionable insights that shaped the development of Ask Doodle. Key outcomes include:

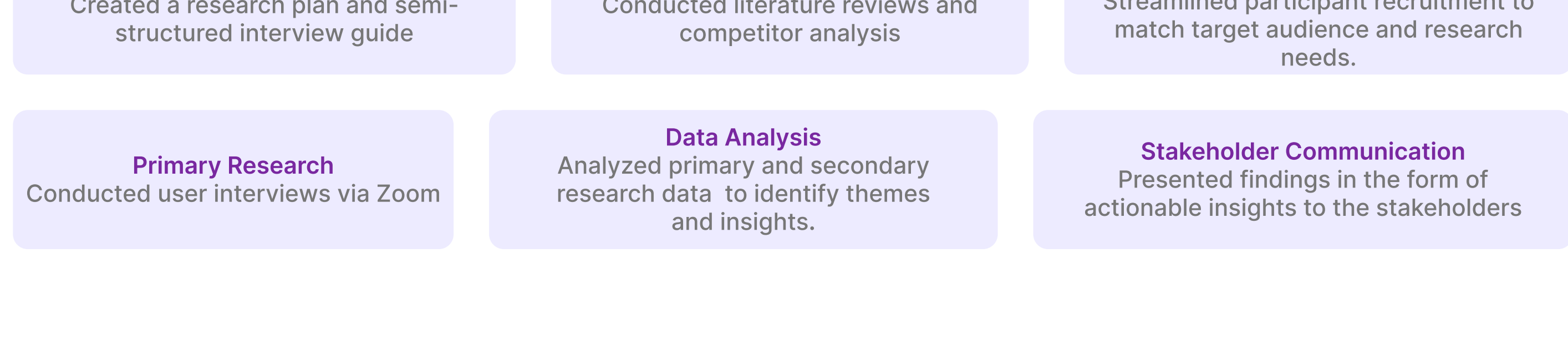
- **User-Centered Feature Development:** Identified needs like fact-checking, domain-specific prompts, and reliable outputs guided feature prioritization.
  - **Strategic Roadmap Alignment:** Findings shaped a roadmap balancing user needs and business goals, ensuring seamless workflow integration.
  - **Market Differentiation:** Address gaps like limited multi-lingual support and originality safeguards to create a competitive edge.
  - **Enhanced User Experience:** Delivered a tool that simplifies workflows, ensures accuracy, and boosts user satisfaction and retention
- The insights directly influenced a user-centric design for Ask Doodle, leading to a feature that meets user expectations,*

*drives adoption, and strengthens the tool's market position.*

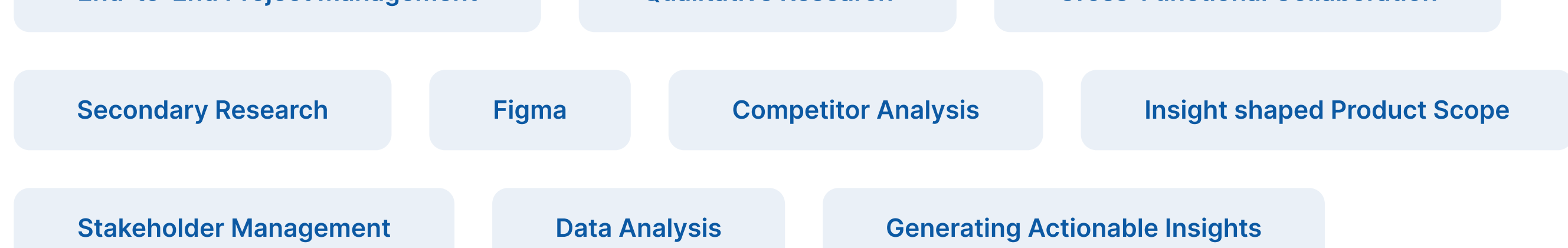
## Next Steps



### Study Design



## End-to-End Project management



## Reflection

This project has been a great learning experience, emphasizing the importance of keeping users at the core of decision-making, especially during the scoping and development phases. By combining user insights with competitive analysis, we will be able to shape the "Ask Doodle" feature to address real user needs and position it to stand out in the market. The process reinforced how critical user