

Problem framing and prioritisation



Project Brief

Imagine you're a PM at Duolingo tasked with getting more people to complete courses that they start.

Key goal: Ensure that the users complete the course that they start, beyond the introductory challenge/level 1.

By Team 29 :

J Lakshmi Deepak

Nithin Suresh

Sameer Ahamed

Analysing the problem

Problem statement : As the Product Manager at duolingo you're tasked to ensure that people complete the courses they start beyond the introductory challenge/level 1.

Scope :

Key problem - increase retention beyond the introductory levels in the app.

Assumptions : As the goal is to increase retention then we can assume our user base has

- Are interested in learning a language
- Downloaded the app / are on the duolingo website
- Have signed up / using guest mode
- Have selected a course (language)
- Have reached the first level of the course

This implies that that we have to focus on the product satisfaction and effectiveness for the user-base and figure out why they're dropping after

- Signing up or
- Starting the introductory level
- Finishing the introductory level

Impact : Lower retention rate will undo doulingo's strong user adoption and users will not reach the the stage where they have to buy the premium product to extract value hence decreasing company revenue.

Duolingo



[Duolingo](#) is a free app that helps people learn languages, math, and music. It uses short lessons, spaced repetition, and gamification to motivate users.

How it works :

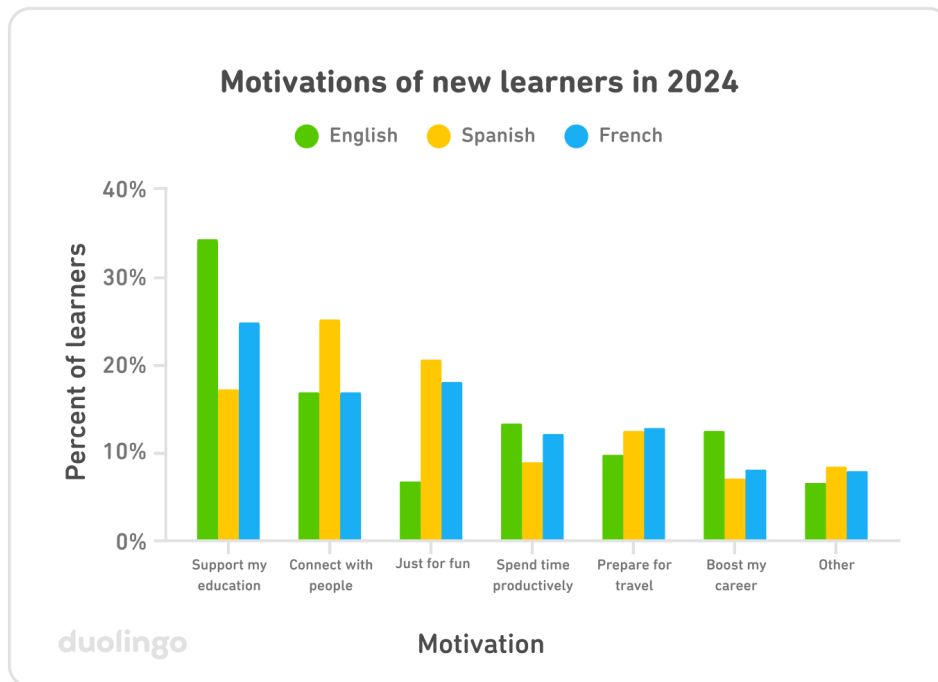
- Bite-sized lessons help you build vocabulary and grammar skills
- Gamification with points and rewards motivates users
- Research-based teaching methods help you learn effectively
- Short, daily lessons help you practice consistently
- Strong A/B testing focused culture
- AI-driven models for personalized notifications

Who uses Duolingo ?

People use Duolingo for travel, school, career, family, friends, and brain health. It's also used by teachers and students.



User personas



As per the official duolingo 2024 language report, some of the common reasons for people to learn a new language are for studies, career and travel.

1. The Student

Traits:

- Typically aged 10-25, tech-savvy, enrolled in school or university.
- Prefers structured learning but enjoys gamification elements.
- Likely to use other learning resources alongside Duolingo.

Pain Points:

- Balancing language learning with academic responsibilities; may struggle with motivation and consistency.
- Struggles with retention due to lack of real-world speaking practice.

Needs:

- Engaging content that fits into a busy schedule; exam preparation and vocabulary retention.
- Writing and speaking practice.
- Better explanations of language rules.

2. The Busy Professional

Traits:

- Aged 25-45, career-oriented, often working in global or multicultural environments.
- Uses Duolingo to learn a language for career advancement.
- Needs practical, business-oriented vocabulary.
- Often learning English or another widely spoken language.

Pain Points:

- Limited time for learning; need for practical language skills relevant to their job.
- Lacks professional/business vocabulary.
- Finds casual gamification distracting.
- Needs certifications for workplace credibility.

Needs:

- Short and effective lessons that can be completed during breaks; business-related vocabulary and phrases.
- Business-focused courses and industry-specific vocabulary.
- Official certification options for credibility.
- Advanced speaking and writing exercises for formal communication.

3. The Global Traveler

Traits:

- Varied age group, adventurous, enjoys exploring new cultures.
- Uses Duolingo to learn basic phrases for an upcoming trip.
- Focuses on practical, conversational phrases rather than full fluency.
- Learn sporadically and may stop after the trip.

Pain Points:

- Need for quick access to practical language skills when traveling; may feel overwhelmed by language barriers.
- Struggles with pronunciation and real-world speaking.
- Finds some vocabulary and levels irrelevant for travel.
- Wants a faster way to learn useful phrases.

Needs:

- Focused lessons on travel-related vocabulary and phrases; offline access to learning materials.
 - Travel-focused lesson plans with essential phrases.
 - More pronunciation practice and listening comprehension.
 - Quick progress tracking for short-term learning.
 - Vocabulary that indicates danger and threat to personal safety.
-

User Research

User Research Methodology

To gather accurate data we will use both qualitative and quantitative research methodologies from existing and potential user personas.

We conducted 1:1 user interviews for qualitative, survey for quantitative and secondary research for in-depth extensive research.

1:1 Interviews

Deeper insight into understanding the user's current experiences, pain-points. These are the user-interview questions used :

1. What language course are you currently pursuing on Duolingo?
 - What motivated you to choose that course?
2. Do push notifications encourage you to continue your course? Why or why not?
3. What keeps you motivated to continue learning a new language?
4. What are the main obstacles preventing you from completing a course?
5. Would you prefer personalized courses based on your learning style and goals?
6. How do you prefer to receive feedback or encouragement when learning a new skill?
7. If you stopped using Duolingo after the first few classes, what was the main reason?
8. What do you find most enjoyable about learning with Duolingo? Is anything missing?

Deepak - User Interviews Key takeaways : Duolingo user proofs

Below findings are from 7 users and here are the proofs in drive feel free to check it out!

1. Motivation to Learn a Language

Users choose courses based on personal interest, career goals, or travel plans.

Some users take advantage of the free access as a low-risk way to try language learning.

Proof:

- "I want to learn and advance in this language for my higher education in Germany."
- "Personal Interest—I've always been interested in languages and culture."
- "The free access made it a low-risk way to try something new without any commitments."

2. Push Notifications: Double-Edged Sword

Some users find notifications motivating, while others find them irritating or excessive.

Users who are highly committed benefit from streak reminders, but casual learners feel overwhelmed.

Proof:

- "Yes, push notifications remind me to stay on track and maintain my daily streak, motivating me to continue learning."
- "No, I get irritated when I get notified."
- "There are a little too many notifications."

3. Major Obstacles to Course Completion

Users cite time constraints, repetitive lessons, and loss of motivation as key barriers.

Some users feel the content is too slow or too childish, while others struggle with depth and complexity.

Proof:

- "Time constraints, lack of practice opportunities, and difficulty in understanding certain concepts can hinder my progress."
- "Repeating the same sentences in different lessons makes it boring to learn."
- "It is too slow to learn and the animation is too childish."

4. Gamification: Users Love It, but Want More

Gamification elements (streaks, badges, rewards) keep users engaged.

However, users want more interactive and immersive game-like experiences beyond streaks.

Proof:

- "Fun visuals, badges, or progress bars that show growth would be encouraging to me."
- "The most enjoyable part of learning with Duolingo is the fun, gamified approach to lessons."
- "It would be better if it changed into some kind of game."

5. Personalized Learning is in Demand

Users want personalized lesson structures that adapt to their pace, interests, and weaknesses.

Many feel Duolingo lacks depth and certification-ready content.

Proof:

- "Yes, if Duolingo could adjust the difficulty based on my progress or offer specific lessons tailored to my interests (e.g., travel vocabulary or business language), it would be more relevant and motivating."
- "I would definitely prefer a personalized course so that it could help build up an exercise lesson to improve recent mistakes."
- "Increase depth in the content, make it as good as other certified programs for certification exams."

6. Speaking & Interaction Needs Improvement

Users want more speaking practice and real-life conversational opportunities.

Some suggested adding live conversations or AI-driven speaking exercises.

Proof:

- "Speaking exercises boost confidence to talk to people."
- "Additional features like live conversations and more advanced lessons would be valuable."
- "If Duolingo introduced AI talking or a community to find people who have the same interest, I would like to combine study with them."

7. Depth & Progress Tracking Issues

Some users feel that progress tracking is unclear, making them lose motivation.

Others find the content lacks depth, which prevents mastery of the language.

Proof:

- "Lack of Progress Tracking: If I can't easily track my progress, it can feel demotivating."
- "The lessons feel too easy or repetitive and lack advanced content."

Nithin - User Interviews

1. User1

What language course are you currently pursuing on Duolingo?

Spanish

a. **What motivated you to choose that course?**

I'm planning to study abroad in Spain next year, so I want to get more comfortable with basic conversations before I go.

Do push notifications encourage you to continue your course? Why or why not?

Yes. The friendly reminders keep me on track.

What keeps you motivated to continue learning a new language?

Seeing my daily streak go up and feeling myself improve.

What are the main obstacles preventing you from completing a course?

Busy college life. Some days- Low Energy

Would you prefer personalized courses based on your learning style and goals?

Yes! I wish Duolingo had a more tailored approach

How do you prefer to receive feedback or encouragement when learning a new skill?

I like something positive ,Something like "Great job! Keep going!"

If you stop using Duolingo after the first few classes, what was the main reason?

I wish there was more real-world practice earlier on.

What do you find most enjoyable about learning with Duolingo? Is anything missing?

The gamification and streak system are fun.

2. User 2

What language course are you currently pursuing on Duolingo?

German

• **What motivated you to choose that course?**

I'm dealing with German clients now for work

Do push notifications encourage you to continue your course? Why or why not?

No. I find them annoying due to work

What keeps you motivated to continue learning a new language?

The practical benefit ,being able to communicate .

What are the main obstacles preventing you from completing a course?

Lack of time due to work

Would you prefer personalized courses based on your learning style and goals?

Absolutely, I need to understand what my clients are speaking.

How do you prefer to receive feedback or encouragement when learning a new skill?

I like clear explanations of my mistakes.

If you stop using Duolingo after the first few classes, what was the main reason?

If I feel like I'm not learning useful things quickly enough, I lose interest.

What do you find most enjoyable about learning with Duolingo? Is anything missing?

The short lessons are great. But I love more real-world dialogues

3. User3

What language course are you currently pursuing on Duolingo?

Japanese

- **What motivated you to choose that course?**

For fun- Anime lover

Do push notifications encourage you to continue your course? Why or why not?

Sometimes. If I'm already motivated, they help

What keeps you motivated to continue learning a new language?

The idea of watching anime in Japanese.

What are the main obstacles preventing you from completing a course?

College, Assignment

Would you prefer personalized courses based on your learning style and goals?

Yes

How do you prefer to receive feedback or encouragement when learning a new skill?

I like rewards, like unlocking new levels or achievements.

If you stop using Duolingo after the first few classes, what was the main reason?

If the lessons feel too slow or repetitive, I lose interest.

4. User 4

What language course are you currently pursuing on Duolingo?

French

- **What motivated you to choose that course?**

I got chance to go onsite

Do push notifications encourage you to continue your course? Why or why not?

Yes, But if I miss a day and get too many reminders, it feels discouraging.

What keeps you motivated to continue learning a new language?

The idea that this skill could give me an edge in my career. Plus, I enjoy the challenge.

What are the main obstacles preventing you from completing a course?

Sometimes the lessons feel too slow. I wish I could skip ahead when I already know a topic.

Would you prefer personalized courses based on your learning style and goals?

Yes! I'd love a professional-focused course that teaches business French for tech professionals.

How do you prefer to receive feedback or encouragement when learning a new skill?

Explanations when I make mistakes.

If you stop using Duolingo after the first few classes, what was the main reason?

If the lessons feel too basic and repetitive, I get bored and look for other learning methods.

What do you find most enjoyable about learning with Duolingo? Is anything missing?

The UI is so easy to use, nothing complicated. Live practice sessions with real people.

5. User 5

What language course are you currently pursuing on Duolingo?

Spanish

- **What motivated you to choose that course?**

I thought it would be fun

Do push notifications encourage you to continue your course? Why or why not?

I ignore them most of the time.

What keeps you motivated to continue learning a new language?

If the lessons stay interesting and engaging. I need something variety

What are the main obstacles preventing you from completing a course?

I lose focus easily, and if a lesson feels too repetitive

Would you prefer personalized courses based on your learning style and goals?

Yes, I need lessons that mix things up and keep me engaged—maybe shorter, high-energy sessions.

How do you prefer to receive feedback or encouragement when learning a new skill?

I like playful, fun encouragement—something that makes me laugh or feel accomplished.

If you stop using Duolingo after the first few classes, what was the main reason?

If it's too structured and doesn't feel engaging enough.

What do you find most enjoyable about learning with Duolingo? Is anything missing?

I like that it's interactive, more unpredictable ways to learn.

Implication 1: Users want personalized courses tailored to their specific learning style and goals.

Reason:

- **User 1** wishes for a more tailored approach.
- **User 2** needs business-focused lessons for German clients.
- **User 4** wants professional French courses.
- **User 5** prefers varied, high-energy sessions.

Implication 2: Notifications should be more adaptive and user-controlled.

Reason:

- **User 1 & 4** find reminders helpful, but too many are discouraging.
- **User 2 & 5** ignore them due to annoyance or lack of relevance.
- **User 3** finds them useful only when already motivated.

Implication 3: Users enjoy gamification but need more dynamic, engaging content.

Reason:

- **User 1 & 3** enjoy streaks and level unlocking.
- **User 5** wants more variety and unpredictability in lessons.
- **User 4** prefers live practice over simple gamified exercises.

Implication 4: Users want to apply their learning in real-world scenarios.

Reason:

- **User 1 & 2** feel early lessons don't include enough real-world phrases.
- **User 4 & 5** dislike overly structured lessons that don't feel applicable.
- **User 3 & 5** want lessons tied to their interests (anime, unpredictable formats).

Implication 5: Shorter, more efficient lessons could help busy users stay engaged.

Reason:

- **User 2 & 4** struggle due to work.
- **User 1 & 3** cite college workload as an issue.
- **User 5** loses focus easily if lessons feel too long or dull.

Implication 6: Users prefer feedback that explains mistakes rather than just marking them wrong.

Reason:

- **User 2 & 4** want clear explanations for errors.
- **User 5** enjoys playful, encouraging feedback.
- **User 1** prefers positive reinforcement.

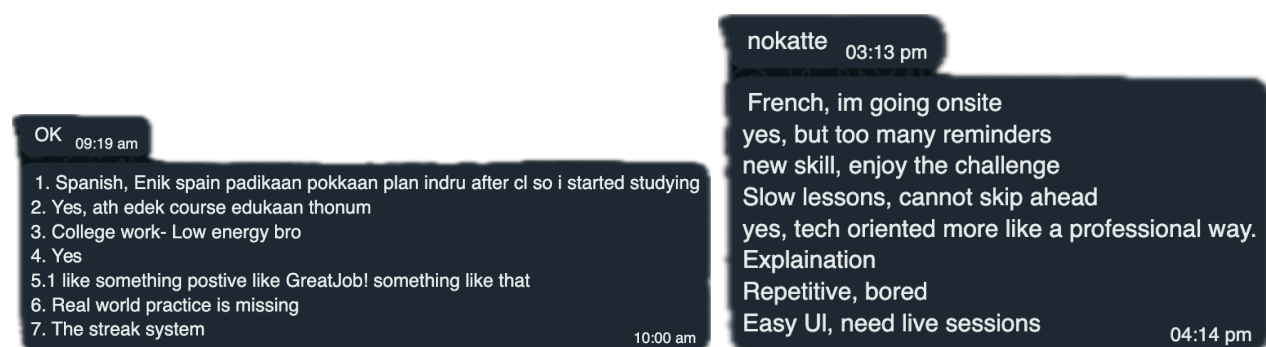
Implication 7: Users want live practice with real people, not just AI-generated sentences.

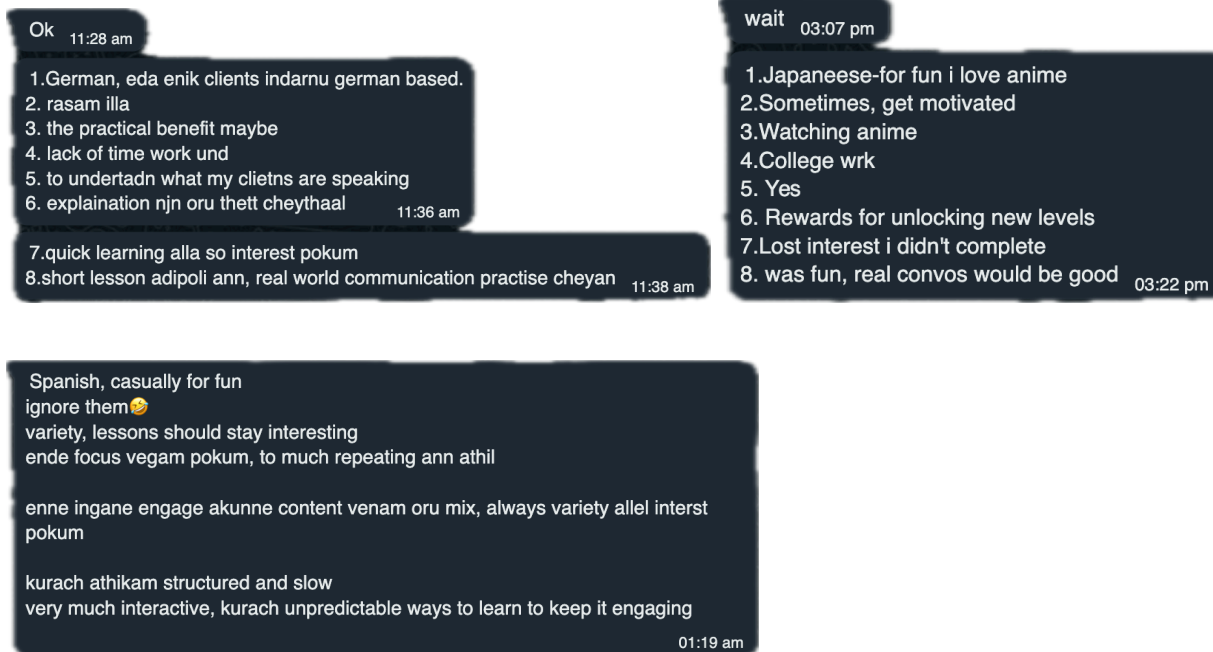
Reason:

- **User 2 & 4** request more real-world dialogues.
- **User 1 & 5** feel like something is missing beyond gamified exercises

Implications from the user research:

- More Personalization – Learning tracks based on goals (career, travel, fun, etc.).
- Smarter Notifications – Adaptive reminders based on motivation level.
- Greater Variety in Lessons – More unpredictable, interactive, and engaging formats.
- Real-World Application – More practical phrases, dialogues, and scenario-based lessons.
- Shorter, More Efficient Lessons – A "Quick Mode" for busy users.
- Better Feedback System – Explain why an answer is wrong rather than just marking it incorrect.
- Live Practice Options – Conversation rooms, chatbots, and real-world dialogue exercises.





Survey

Quantitative information on user demographic and behaviour motivation.

Questions :

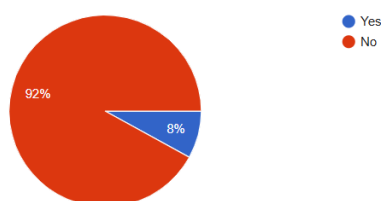
- Have you ever completed a full language course on Duolingo?
- What's your primary motivation for learning a new language?
- How often do you use Duolingo?
- What is the biggest challenge you face when trying to continue your language course?
- How easy or difficult was it to get started with the course?
- Did you feel a sense of accomplishment after your first few lessons?
- Have you ever felt discouraged or lost motivation to continue the course? If so, what were the reasons?
- How do you feel about the difficulty of the course material?
- How relevant is the course content to your learning goals?
- What new features or improvements would you suggest to make the learning experience more engaging and effective?

Key implications from survey (25 responses)

1. Motivation & Engagement Issues

Have you ever completed a full language course on Duolingo?

25 responses



Finding: Users struggle with staying motivated and consistent.

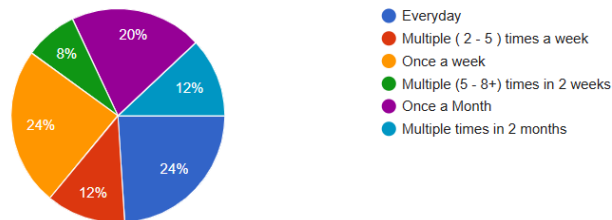
Proof:

- *"staying motivated to learn"*
- *"Consistency"*
- *"Lack of feeling of progress. Lack of motivation since spoken language sometimes differs from proper language."*
- *"Lack of Motivation"*

How often do you use Duolingo?

 Copy chart

25 responses



2. Content & Learning Challenges

Finding: Users struggle with grammar, sentence structure, and practical usage.

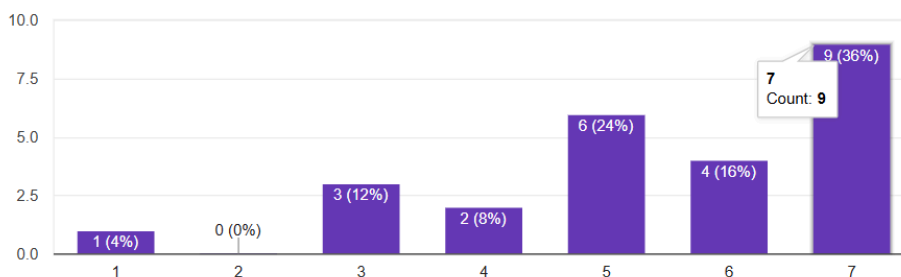
Proof:

- *"Not able to understand the concept. Why are few verbs conjugated in one way and others in a different way?"*
- *"Quality. I don't feel Duolingo is adequate to compete with, for example, Studienkolleg for German."*
- *"Spoken language lessons would help much more. I personally tried learning Arabic on it, and it did not help me much in daily conversations."*

How easy or difficult was it to get started with the course?

 Copy chart

25 responses



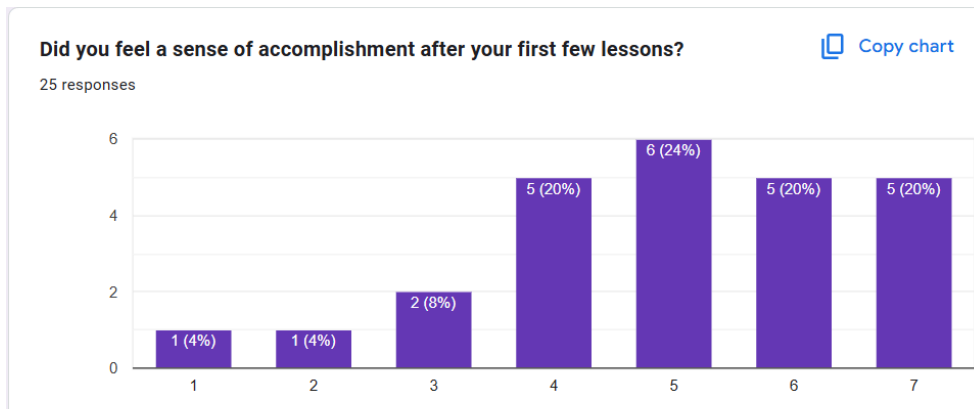
3. Lesson Format & Personalization

Finding: Many users feel the lessons are either too basic or not engaging enough.

Proof:

- *"The modules are not interesting."*
- *"The lessons used to revolve around the basics, which was not enough to achieve fluency, which in turn resulted in lack of motivation."*
- *"Teaching sentences that are actually useful in real life :D")*

- *"More lively content with real-life videos."*

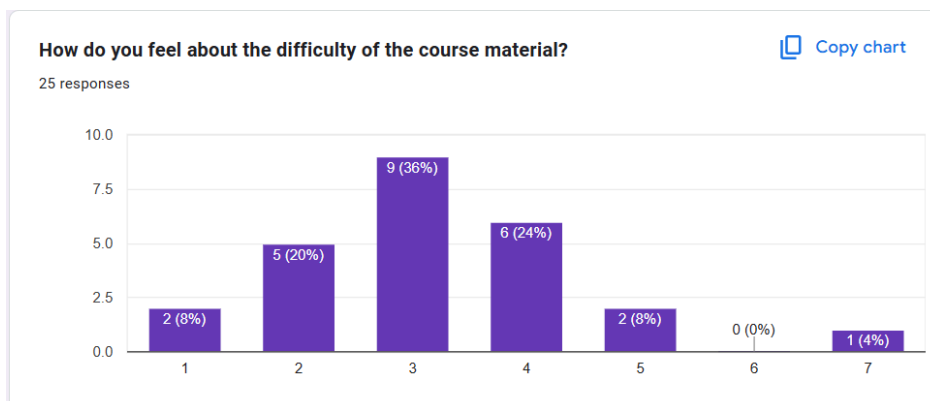


4. Usability & App Experience

Finding: Users find ads disruptive, and the UI could be more user-friendly.

Proof:

- *"Remove Ads"*
- *"Yes, the app could be made more user-friendly."*
- *"More quizzes."*

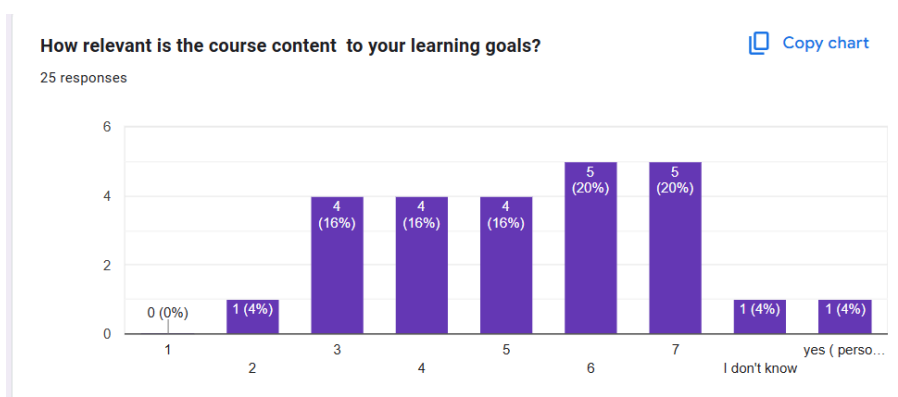


5. Competitiveness & Perceived Value

Finding: Some users feel Duolingo isn't strong enough compared to other structured courses.

Proof:

- *"Didn't feel Duolingo was as adequate as it was shown for any language. I tried German, Japanese, and French but nothing felt adequate enough."*
- *"Real-life examples and talking sessions."*
- *"Stories, podcasts, or real-life conversations can be included."*



Secondary Research

★☆☆☆☆ 17 January 2025

I'm currently on a 276 day streak, and only using this app because I'm not aware of anything better yet. I've been learning Danish, and feel like a beta tester because I can't seem to go a day without finding 2-3 mistakes in hints, English grammar, etc. It just feels lazy and poorly maintained, and there's problems that have gone for years without being fixed, like bad audio quality when you hit the button for slow playback.

298 people found this review helpful

★★★★☆ 23 November 2024

The app used to be fantastic, but is progressively becoming less usable (mostly after the AI integration). After the recent update, in the free version, I can no longer earn hearts until they become zero. Then I get just one heart for the next five hours. I get that it's a free version and can live with the ads but if you start making the free version unusable so folks shift to the paid version, most people will simply abandon it.

373 people found this review helpful

★☆☆☆☆ 2 February 2025

This went from a decent little app to them constantly taking away features to push Duolingo Plus. Not long ago they took away the ability to practice as much as you want to in order to earn hearts...to force you into paying for the hearts. Defeats the whole purpose of a learning app. Give us back the ability to practice for hearts as much as we want!

228 people found this review helpful

★☆☆☆☆ 1 February 2025

I've been using this app for a while now and with the change to practicing to get free hearts, I cannot give this app more than one star. I need to go at my own pace to learn languages and not being allowed to practice unless all of my hearts are depleted is a terrible change and makes the buy-in for Pro/Max feel really pushy and I don't like that. If that feature was a restored so that I could practice whenever I want with the automatically generated lessons. I would easily give 5 stars again.

145 people found this review helpful

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145 people found this review helpful

★☆☆☆☆ 31 December 2024

I thought the advertising was bad before, it's gotten even worse. After every single lesson, whether it's math, music or language, there are 2 ads, one for another product, and one for Duolingo super. If you had an option to purchase a feature that just got rid of ads, I would pay for that, but, I WILL NEVER WASTE MY MONEY ON SUPER!!! I like having hearts, so there's actually some sort of incentive to do well. Also, bring back practice for hearts, practicing is a very important part of learning.

662 people found this review helpful

★★★★★ 18 December 2024

I've used this app for over a decade with very few problems. I even pay for super and have gifted Family to several friends to motivate each other. If I did encounter issues, I'd send a message and things would be remedied quickly, or at least addressed. But these past few months, there have been many glitches where I either don't receive my xp bonuses or they disappear after one lesson.. its very frustrating and discourages me from practicing more. Not sure what changed, but I dont like it.

★★★★★ 1 January 2025

I'm no longer able to practice for more than one heart. They also messed with multipliers running out and no more streak freezes from chests. The pop-up ads have become loud, long and intolerable. New exercises have you gambling on what the right answer is, even when there should be multiple possibilities. The free version is no longer what it once was. It's as if they're annoying you to upgrade to the paid version. I have a 3 year streak, yet with the new updates I am no longer a happy user.

207 people found this review helpful

★★★★★ 4 December 2024

With the new update they ruined the learning process completely. It is very unrewarding to complete lessons now. All units are in random order without a certain theme, so if you want to repeat vocabulary, you first have to search for that unit for 10 minutes. The path does nothing to improve our languages, instead it is a chaotic way to demotivate progress. Update 2024: They removed the possibility to practice lessons to earn hearts. It's not free anymore, but a paid app with a free trail.

243 people found this review helpful

★★★★★ 19 December 2024

I enjoy the gamification of Duolingo and bought Plus for no ads. This is a complete lie - advertising for their other subscriptions is everywhere. I will not be renewing. Other than that, it works as intended. It can be a fun way to learn the language. However, an improvement I would recommend is making you write a sentence on your own - it's too easy to piece them together with the word tiles provided. If you know a few words you can guess the others which doesn't feel like real learning

142 people found this review helpful

Did you find this helpful?

Yes

No



Sourabh Das



★★★★★ 15 December 2024

The latest update is full of bugs, makes the experience worse, and makes it harder to learn with the hearts system. It has bugged out multiple times, with the keyboard crashing so I had to exit out of a lesson, the app failing to track progress, not being able to start lessons, not being able to change settings etc. There are core lessons that are being blocked now and requiring the paid subscription to access. It's wild that they still advertise themselves as a 'free' language learning app.

480 people found this review helpful

Duolingo is absolutely not a substitute for proper training. It doesn't teach the Grammar of the language effectively. I think it only helps you to increase the vocabulary. If you really want to master the language, Duolingo is not for you.

1. Lack of Control Over What You Learn

One of my biggest frustrations with Duolingo is the lack of control. You can't choose what to focus on—Duolingo decides what lessons to present. For someone like me, who wants to revisit certain aspects of Turkish grammar, this can be limiting. I want to be able to review specific lessons or words, but Duolingo doesn't allow for that level of customization.

Cons:

- It's only for learning the basics of a language; in [Common European Framework of Reference for Languages](#) you can probably learn from Duolingo a language to somewhere at A2 level but you need B2 for fluency and C2 for proficiency.
- It always uses two languages and focuses on translation; while this is unavoidable for beginners it's not really necessary later on. Actually professional courses with teacher typically do not use only the language to be learned. In addition to this, it makes it a little more difficult for users that don't speak English as a native language as most courses are for English speaker;
- Limited information on grammar;
- Does not have open dialog or complex text, only sentences.

Why Duolingo doesn't work

It doesn't teach grammar

The first and only time I used Duolingo, I gave up pretty quickly because it didn't give me any explanation of the grammar used to form the sentences it was teaching.

For me, that is a really important part of learning and understanding a language properly.

Key implications from secondary research :

1. Lack of Depth and Context:

- No Context Given: Sentences and words are often random and don't reflect real-life situations.
- Disjointed Lessons: Lessons are small, unrelated bits of language that don't build a thorough understanding.
- Doesn't Prepare for Real-Life Conversations: The lack of grammar lessons and meaningful context makes it difficult to generate sensible sentences for actual communication.

2. Inadequate Grammar Instruction:

- Doesn't Teach Grammar Effectively: While lesson summaries and forums exist, explanations are incomplete, and grammar isn't the main focus.
- Basic Grammar Questions Remain Unanswered: Learners often seek basic grammar explanations outside of Duolingo.

3. Limited Feedback and Rigidity:

- Only Allows One Right Answer: Translation exercises often have only one accepted answer, even though multiple valid translations may exist. (autolingual.com)
- No Personalized Feedback: Lacks the ability to receive feedback from real people.

4. Inability to Achieve Fluency:

- Won't Make You Fluent: Unlikely to achieve fluency using Duolingo alone.
- Focus on Translation Hinders Fluency: Over-reliance on translation prevents learners from thinking in the target language and producing their own sentences.

5. Limited Control and Customization:

- Lack of Control Over Learning: Users can't choose what to focus on; Duolingo dictates the lessons.
- Can't Review Specific Areas: No way to review specific lessons, grammar points, or vocabulary.

Common Overlapping Pain Points

From the collected insights, the key **recurring pain points** across multiple user interviews, survey and secondary research are:

1. Lack of Depth & Context / Speaking & Interaction Needs Improvement / Speaking & Interaction Deficiencies

- a. Lessons feel superficial, disjointed, and don't build toward real-world fluency.
- b. No Context Given: Sentences and words are often random and don't reflect real-life situations.
- c. Disjointed Lessons: Lessons are small, unrelated bits of language that don't build a thorough understanding.
- d. Doesn't Prepare for Real-Life Conversations: The lack of grammar lessons and meaningful context makes it difficult to generate sensible sentences for actual communication.
- e. Limited speaking exercises and lack of conversational opportunities.
- f. Users want more speaking practice and real-life conversational opportunities.
Some suggested adding live conversations or AI-driven speaking exercises.

2. Inadequate Grammar & Syntax Gaps

- a. Users find that grammar and sentence structure are not sufficiently covered, leading to a lack of understanding.
- b. Grammar explanations are inadequate, leading users to seek help elsewhere.
- c. Doesn't Teach Grammar Effectively: While lesson summaries and forums exist, explanations are incomplete, and grammar isn't the main focus.
- d. Basic Grammar Questions Remain Unanswered: Learners often seek basic grammar explanations outside of Duolingo.

3. Rigid & Limited Learning Control – Limited Control and Customization:

- a. Users cannot choose what to review or personalize their learning path.

- b. Lack of Control Over Learning: Users can't choose what to focus on; Duolingo dictates the lessons.
- c. Can't Review Specific Areas: No way to review specific lessons, grammar points, or vocabulary.

4. Frustration with Gamification & Hearts System –

- a. Some users feel over-gamification reduces serious learning, and the "hearts" system discourages practice.
- b. While gamification elements like streaks and rewards engage users, they can also lead to frustration when they feel excessive or superficial.

5. Too Many Ads –

- a. Ads interfere with learning in the free tier system and you cannot get rid of them unless you pay
- b. Users report being overwhelmed by ads, which disrupts their learning experience.

6. Intrusive Notifications (double edge sword) –

- a. Ads disrupt learning, and notifications can feel excessive or irritating.
- b. Being forced to pay, goes against their mission

7. Depth & Progress Tracking Issues / Unclear Progress & Motivation Issues –

- a. Users feel a lack of meaningful progress tracking and experience repetitive lessons.
- b. The app does not provide personalized feedback, which can hinder learning and motivation.
- c. Some users feel that progress tracking is unclear, making them lose motivation. Others find the content lacks depth, which prevents mastery of the language.

8. Personalized Learning is in Demand:

- a. Users cannot choose what to review or personalize their learning path.
- b. Users want personalized lesson structures that adapt to their pace, interests, and weaknesses.
Many feel Duolingo lacks depth and certification-ready content.

9. Inability to Achieve Fluency:

- Won't Make You Fluent: Unlikely to achieve fluency using Duolingo alone. (autolingual.com, blog.thelinguist.com)
 - Focus on Translation Hinders Fluency: Over-reliance on translation prevents learners from thinking in the target language and producing their own sentences. (autolingual.com)
 - Many users feel that the app encourages guessing rather than deep understanding, making it difficult to achieve fluency.
-

Ideation

Based on our research and understanding of the language learning space we then generated ideas to help meet the goal

We placed the ideas in 2 buckets i.e quick wins and long-term solutions based on pain-point frequency, user-segment market share and intensity.

As our goal is to increase retention we must focus on problems that make users churn after using the app to get them to move past the introductory level.

Quick win Ideas :

These can be implemented in a short timeframe to improve retention without major structural changes:

1. Context based story learning

- a. Implement a "Daily Conversation" feature that shows realistic dialogue.
- b. Encourage phrase-building instead of isolated vocabulary translation.

2. How users interact with ads : for free users

- a. Watch ads to get more stars (proven in games that it works)
- b. Limit ads between lessons instead of mid-lesson.
- c. Offer a 5-minute ad-free period for watching a single, longer ad.

3. Implement User Feedback Mechanisms:

- a. Create a simple feedback tool within the app where users can report issues or suggest improvements directly.

4. Refine Push Notifications to Reduce Irritation

- a. Personalize push notifications to make them less intrusive while still providing encouragement for daily engagement.
- b. Allow users to customize notification frequency.
- c. Add "silent streak reminders" (email or in-app banners instead of push alerts).

5. Revise the "Hearts" System:

- a. Modify or eliminate the "hearts" system to reduce feelings of frustration and allow for more mistakes without penalty.

6. Introduce Real-World Sentence Practice Mode

- a. Implement a "Daily Conversation" feature that shows realistic dialogue.
- b. Encourage phrase-building instead of isolated vocabulary matching.
- c. Packs of Sentences from Real Life : Introducing common scenarios from the world can make users interact more, like for travel or cultural conversations etc.

7. Learning goals optimization :

- a. Lets users decide how much they want to finish in a day so that they will feel control of the app.

8. Scoreboard among their friends :

- a. People tend to pursue more if they have seen their friends on the top of the leaderboard (psychologically thinking).we can take Airtribe leaderboard as an example.

Long-term ideas :

Long term strategic bets with massive impact.

These require bigger investment but can significantly increase retention and improve learning outcomes and drive the company to new heights.

1. AI practice (interview style) / Speaking & Conversation Mode with AI & Community

- a. Introduce AI-powered speaking partners for pronunciation and dialogue practice.
- b. Introduce features for live conversations with native speakers or AI-driven speaking exercises to enhance practical language use.
- c. Introduce AI-powered speaking partners for pronunciation and dialogue practice.

2. Community Practice / Study Buddy

- a. Course buddy for accountability and motivation.
- b. Create a Duolingo community feature to pair learners for real-time practice.
- c. Build community features such as forums or study groups where learners can interact, share experiences, and practice together.

3. Advanced Proficiency & Certification Pathways

- a. Develop an official Duolingo certification path for professional and academic credibility.
- b. Offer intermediate & advanced lessons that focus on fluency instead of just vocabulary translation.

4. Personalized Learning Paths:

- a. Develop an adaptive learning algorithm that customizes lessons based on user progress, interests, and weaknesses, allowing for a more tailored experience.
- b. Allow users to choose between guided learning (current system) and self-directed review mode.
- c. Enable topic selection (e.g., grammar, vocabulary, conversation) for a custom curriculum.

5. Augmented reality (AR) :

- a. Using the latest technology out there Duolingo can develop a feature which can let users see how a real conversation occurs and learn from it using AI.

6. Competitive Learning : global competitions like spelling bee and translations

- a. Competitive among kids aged 6 - 14 to promote multiple language adoption
- b. Prize money and incentives for winners and participants
- c. Parents recognition, live streaming and voting.

Next, to identify which pain-points to solve with which ideas.

Prioritization

To prioritise the ideas we used the RICE framework to evaluate the ideas. We used the user research take-aways, common pain-points and then mapped the solutions to understand which ideas will have a higher impact.

We curated ideas in the low effort, high impact for quick wins and high impact, high effort for the long-term bets.

Quick wins RICE scores :

Sno	Idea	Idea Rationale	Reach (1-4)	Impact (1-4)	Confidence (1-4)	Effort (1-4)	RICE
	Growing premium membership user base	How does it help to reach the goal? include also the rationale for reach and impact score	How many customers will this idea impact?	How much will this idea impact the business goals?	How confident are you about the estimates for reach, impact, and effort?	How much effort to deliver?	Overall score
1	Context based story learning		3	3	3	2	13.50
2	Reduce Ad frequency / How		3	3	4	1	36.00
3	Implement User Feedback		3	2	4	2	12.00
4	AI driven career assistance		3	3	4	4	9.00
5	Refine Push Notifications to		3	3	2	2	9.00
6	Introduce Real-World Sentence		3	3	3	2	13.50

Based on the scores and internal discussions we picked the following ideas :

1. How users interact with ads
2. Context based storytelling
3. Introduce Real-World Sentence Practice Mode

Long-term RICE scores :

Nithin :

Sno	Idea	Idea Rationale	Reach (1-4)	Impact (1-4)	Confidence (1-4)	Effort (1-4)	RICE
	[1 liner]	How does it help to reach the goal? include also the rationale for reach and impact score	How many customers will this idea impact?	How much will this idea impact the business goals?	How confident are you about the estimates for reach, impact, and effort?	How much effort to deliver?	Overall score
1	AI practice (interview style)			2	3	3	4.50
2	Community Practice / Study Buddy			2	4	4	16.00
3	Advanced Proficiency & Certification Pathways			4	3	2	12.00
4	Personalized Learning Paths:			3	4	3	12.00
5	Augmented reality (AR) :			2	4	4	8.00

Sameer :

Sno	Idea	Idea Rationale	Reach (1-4)	Impact (1-4)	Confidence (1-4)	Effort (1-4)	RICE
	Growing premium membership user base	How does it help to reach the goal? include also the rationale for reach and impact score	How many customers will this idea impact?	How much will this idea impact the business goals?	How confident are you about the estimates for reach, impact, and effort?	How much effort to deliver?	Overall score
1	AI practice (interview style)		2	4	3	4	6.00
2	Community Practice / Study		3	3	3	2	13.50
3	Advanced Proficiency &		2	4	4	2	16.00
4	Personalized Learning Paths:		4	4	3	3	16.00
5	Competitive Learning		2	3	3	2	9.00

Deepak:

Sno	Idea	Idea Rationale	Reach (1-4)	Impact (1-4)	Confidence (1-4)	Effort (1-4)	RICE
	[1 liner]	How does it help to reach the goal? include also the rationale for reach and impact score	How many customers will this idea impact?	How much will this idea impact the business goals?	How confident are you about the estimates for reach, impact, and effort?	How much effort to deliver?	Overall score
1	AI practice (interview style) / Speaking & Conversati		3	3	3	4	6.75
2	Community Practice / Study Buddy		3	3	3	3	9.00
3	Advanced Proficiency & Certification Pathways		2	3	3	4	4.50
4	Personalized Learning Paths:		4	3	3	4	9.00
5	Augmented reality (AR)		2	4	3	4	6.00

Based on the scores and internal discussions we picked the following ideas :

1. Advanced proficiency and certification
2. Personalized learning
3. Community based learning

Then we used the 5 Whys analysis to go deeper into the solution and define the problem statement.

5Ws Analysis :

1. Who is encountering the problem? - Identifying the individuals or groups affected by the issue.
 2. What is the specific problem they face? - Clearly defining what the problem is.
 3. When does the problem occur? - Determining the time or situation in which the problem arises.
 4. Why is it important to solve the problem? - Understanding the significance and impact of resolving the issue.
 5. Where does the problem arise? - Locating the place or context in which the problem takes place.
-

Solution Implementation

After prioritizing the solutions we then have laid out the possible next steps to implement the solution based on the 2 different categories of solution i.e quick wins and long term bets.

Quick Wins

These can be implemented in a short timeframe to improve retention without major structural changes

1. Ad interaction mechanism

- Watch ads to get more stars (proven in free2play games that it works)
- Limit ads during lessons to after or in-between levels.
- Use ads as a break period for users
- Offer a 5-minute ad-free period for watching a single, longer ad.
- For free-tier users only

5W Analysis

- Who is facing this problem?

User on the duolingo app in the free tier

- What is the specific problem they are encountering?

An abundance of ads

- Where does this problem occur?

In-between the course and at times during the levels in a course

- When does this problem arise?

When they clear a level and are starting the next level

- Why is solving this problem important?

Too many ads are increasing user churn impacting retention and decreasing user satisfaction.

Problem statement : An abundance of ads in the free tier of the duolingo app in-between levels and during the levels is reducing retention and user satisfaction.

Context :

Ads disturbing a user's learning has been one of the key and repetitive points for user's discontinuing a course.

Solution thought process :

We believe that reducing the Ads or removing them all together will harm the product's revenue and company's business growth hence we will change how the users interact with the Ad. This will reduce their discontentment and induce a feeling of control over their time and will not interrupt their learning.

Implementation :

- Since we're not building a new set of features and only changing the ad interaction mechanism we believe a 2-week sprint should suffice for the solution implementation. Sprint duration can be divided into 2 parts :
 - Sprint 1 (week 0-1) : Planning
 - Sprint 2 (week 1-2) : Testing and Launch
- It does not hinder any long-term strategy or vision for the product.
- The trade-off could be reduced monetization due to lower friction in the free tier.

Metrics to track :

- Conversion rate : (KPI)
- CTR - Click through rate
- Impressions
- User Satisfaction (NPS or in-app surveys): Collect qualitative feedback on how enjoyable/effective the new ad placement and mechanism is.

2. Context based storytelling

This feature aims to inject real-life dialogue scenarios into daily practice. Instead of learning vocabulary in isolation, users engage with short, story-like conversations that reflect everyday contexts (ordering at a grocery store, chatting with a friend, traveling, etc.).

5W Analysis

- Who?

Targeted at all Duolingo users but especially those who crave real-world application (professionals, travelers, or hobbyists who want natural conversation skills).

- What?

A new "Daily Conversation" feature that presents realistic dialogues or mini-scenarios with branching paths. Users practice phrase-building instead of just matching isolated words.

- Where?

Integrated into Duolingo's main lesson flow. Users could access this feature as a standalone daily exercise or find it embedded within their existing lesson trees.

- When?

Proposed as a daily or weekly practice session. Learners might unlock a "Daily Conversation" after completing their main lesson for the day.

- Why?

User feedback shows a strong desire for context-rich learning. Real-world dialogues boost engagement, motivation, and retention because they answer the question: "When will I actually use this?"

Solution thought process :

The idea is to immerse learners in practical, realistic speech patterns so they gain confidence in actual communication settings. This has been one of the most "asked for" and "requested" features from users in both secondary and user research. This enables language learners to choose a setting and gain confidence in real-world conversational scenarios.

Implementation :

- Acquisition: Potentially attract new learners who prefer a more conversation-driven approach.
- Retention: The variety of real-world scenarios reduces boredom and drives higher daily active users (DAU).
- Conversion: Users are more likely to upgrade to premium if advanced or specialized conversation modules are gated behind a subscription.
- The implementation can be divided into 3 sprints :
 - Sprint 1 (0–1 week): Research & Design
 - Sprint 2 (1–3 week): Development & Beta Testing
 - Sprint 3 (3–4 week): Test and Launch

Business Objective

- Increase Retention & User Satisfaction: Offering meaningful, practical language practice encourages daily returns and subscription upgrades (if a premium tier with advanced scenarios is introduced).
- Differentiation: Sets Duolingo apart by providing immersive, context-rich exercises—an edge over competitors who focus on rote memorization.

Metrics to Track :

- Daily/Monthly Active Users (DAU/MAU): Gauge if conversation features increase active usage.
- Session Length: Check if context-based storytelling keeps users engaged longer.
- Lesson Completion Rate: Track if more users are completing "Daily Conversation" lessons versus standard lessons.
- Retention/Churn Rate: Measure changes in user dropout after rolling out realistic dialogues.
- User Satisfaction (NPS or in-app surveys): Collect qualitative feedback on how enjoyable/effective the new feature is.

3. Introduce Fluency Practice Mode

- Implement a "Role play conversation" feature that shows realistic dialogue.
- Encourage phrase-building instead of isolated vocabulary matching.
- Packs of Sentences from Real Life : Introducing common scenarios from the world can make users interact more, like for travel or cultural conversations etc.
- AI powered personalized , sentence challenges will make it more interactive , challenging and engaging for the users.

5W Analysis

- Who is facing this problem? -

Beginners and intermediate learners are facing a hard time with real life conversations because of vocabulary based exercises they don't feel fluent when having a real time conversation.

- What is the specific problem they are encountering? -

According to the data obtained we can see that users cannot structure full sentences for real life conversations for example at a restaurant or for directions, travelling or even to connect with people.

- Where does this problem occur? -

It occurs in Duolingo lessons where exercises are so much focused on translation and vocabulary.

- When does this problem arise? -

When users try to have real life conversations with others they realize that they lack fluency and conversational ability.

- Why is solving this problem important? -

Solving this problem will help users to achieve fluency and real life conversational skills which will make Duolingo bring back its customer base and play a major role when compared to other competitive applications.

Problem Statement : Users of Duolingo struggle to generate real-world sentences even after finishing courses or in the middle of their trip because of the emphasis on isolated vocabulary and translations, which leads to a lack of confidence in conversation.

Context :

Many users believe that the software makes it harder to become fluent since it promotes guessing rather than in-depth comprehension. When translation is used excessively, learners are unable to generate their own words and think in the target language.

Solution :

Introducing Fluency Practice Mode.

We believe that introducing Fluency Practice Mode will help users to build sentences naturally rather than just selecting words. This will help users to gradually progress from structure to freely forming sentences which will increase Retention rate and completion rate.

Implementation :

- I believe that this mode can be done in one sprint cycle 4-6 weeks using an agile approach focusing on MVP launch that provides value quickly.
- Adding a daily conversation challenge where users fill in blanks or rearrange phrases in real world dialogues.
- Including Real world Scenario Based packs (example Travelling, asking for directions, ordering food at a restaurant , social conversations ,business, greetings etc)
- Providing instant feedback on grammar and sentence structure and giving XP rewards for completing sentence Challenges will change retention and completion rates.
- Sprint duration can be divided into 3 sprints :
 - Sprint 1 (week 0-1) : Design and planning
 - Sprint 2 (week 1-3) : Development and integration
 - Sprint 3 (week 3-4) : Testing and Launch

Metrics to track :

- Lesson completion rate ,
 - Retention/Churn Rate: Measure changes in user dropout after rolling out realistic dialogues.
 - User Satisfaction (NPS or in-app surveys): Collect qualitative feedback on how enjoyable/effective the new feature is.
-

Long-Term High Impact bets :

These require bigger investment but can significantly increase retention and improve learning outcomes.

1. Advanced Proficiency & Certification Pathways

- Develop an official Duolingo certification roadmap for professional and academic credibility to increase command over language.
- Offer intermediate & advanced lessons that focus on fluency instead of just vocabulary translation.
- Virtual and offline live-classes in offline duolingo centres based on location convenience and preference.
- Personal 1-to-1 tuition available for a higher fee (upsell)

5Ws

- Who is facing this problem?

Users who want to learn a language with high proficiency

- What is the specific problem they are encountering?

Proving their credibility in schools and workplaces or to governments.

- Where does this problem occur?

In official settings where documentation or proof is required to showcase language proficiency.

- When does this problem arise?

When users start new jobs, move countries and start new degrees.

- Why is solving this problem important?

Lack of advanced and certification grade classes are hindering users to gain fluency and official credibility over their language proficiency.

Problem statement : Users who want to gain high proficiency in a language with a certification that can help them prove their credibility in an official setting find it unmotivating and pointless to stay on the app.

Context :

A strong cohort of people online and from our user interviews have said that duo lingo doesn't help them gain fluency and high proficiency in the language they are learning. They have also shown interest in advanced classes and certification grade courses to help their credibility.

Solution thought process :

We want to implement a long-term curriculum for a specific cohort of our users who are interested in reaching high command over a language with tests and certification that will help prove to their country/employer/school that they are qualified in the language.

Implementation :

- This implementation will be a long-term strategic bet charging users a premium fee who want to learn a language within 3-6 months with a class or 1-to-1 setting based on their preference.
- The implementation timeline will be 6 months with a dedicated team of program managers, analysts, account executives and biz dev specialists. It will consist of
 - Phase 1 : Week 0-3 : Business requirements, product vision and roadmap :
 - Phase 2 : Week 3-5 : Demographics, user segmentation, pricing and GTM :
 - Phase 3 : Week 5-6 : Stakeholders, syllabus and locations
 - Phase 4 : Week 6-10 : Design, testing and user feedbacks
 - Phase 5 : Week 10-14 : Set-up physical centres, marketing and content
 - Phase 6 : Week 14-16 : Hiring coaches, teachers and operation staff
 - Phase 6 : Week 16-20 : Review process, standardize and prepare for launch
 - Phase 7 : Week 20-24 : Launch first cohort, sales and GTM execution
- This can also be a hybrid online-offline model in densely populated metropolitan cities around the world with a strong user base on duolingo.
- This will enable a new business model and revenue streams for a specific user persona based on problem intensity, shortness on time and extreme focus.
- The trade-off could be that there are already established players in this space but given duolingo's strong user base and brand it will not be a big deterrent.
- It could take 8-12 months to ideate, test and execute this hence would require a detailed product roadmap that aligns with the company's vision.
- Metrics to track :
 - Signups and waitlist before launching
 - Student enrollment / conversion rate after launching
 - Business metrics : Sales, GMV, profits and NPS

2. Personalized learning Paths

Solution Explanation

An adaptive learning algorithm tailors lesson difficulty and content based on user performance, progress, and interests. Users can also opt for a "guided" approach (similar to the current Duolingo structure) or a "self-directed" mode that allows them to pick specific topics (grammar, conversation, vocabulary, etc.). This ensures the learning experience aligns with each individual's goals, whether they're traveling, doing business abroad, or casually learning for fun.

5W Analysis

- Who?

All learners benefit—new users who need structured guidance and advanced learners who want specific topic focus (e.g., business, travel, culture).

- What?

An adaptive engine that tracks performance, identifies strengths/weaknesses, and recommends the next lessons accordingly.

Users can choose a guided path (auto-generated sequence) or a self-directed path (user picks topic modules).

- Where?

Implemented within the existing Duolingo app architecture, possibly introduced on the "Home" screen where lessons are organized.

A toggle in settings or a separate tab could be added for "Personalized Path."

- When?

Onboarding for new users might include a short quiz to gauge language level and interests. Existing users can switch anytime to a personalized path.

- Why?

User interviews and feedback highlight the need for specialized, contextually relevant lessons—especially for busy professionals or passionate hobbyists wanting deeper practice.

Implementation :

- Higher Onboarding Success: Personalized approach hooks new users early as they see direct relevance to their goals.
- Reduced Churn: Learners less likely to drop out because they aren't forced through irrelevant or repetitive content.
- Upsell Potential: Users seeking advanced or industry-specific lessons may be willing to pay for specialized modules.
- How It Can Be Implemented (Timeline)
 - Phase 1 (0–3 months): Data & Algorithm Design
 - Phase 2 (3–6 months): MVP Development & Internal Testing
 - Phase 3 (6–9 months): Beta Launch & Feedback
 - Phase 4 (9+ months): Full Rollout & Continuous Improvement

Business Objective

- Enhance User Engagement & Skill Progression: Tailored lessons keep learners challenged but not overwhelmed, improving language competency and satisfaction.
- Monetization Opportunities: Specialized topics or advanced modules can be premium offerings, driving subscription revenue.

Metrics to Track :

- Lesson Mastery Rate: Measure how quickly and accurately users complete personalized modules.
- User Path Completion: Track the percentage of users who follow and complete an entire personalized path.
- Time to Next Level: See how quickly users progress to more advanced lessons, indicating if personalization is effective.
- Feature Adoption Rate: Percentage of users opting into personalized paths over the standard flow.
- Paid Conversion Rate: If advanced or specialized modules are behind a paywall, monitor subscription upgrades or in-app purchases.

3. Duoconnect

A course buddy system that pairs students based on their language level, hobbies, and goals for mutual accountability. Community practice groups allow users to stay involved by participating in forums, study groups, and language challenges. They can earn XP by helping out their friends, accomplishing tasks together, or discussing information on the forum.

5W Analysis

- Who is facing this problem ?

Duolingo users that struggle to stay motivated and consistent when learning a language, lack responsibility to stay committed and are in the early and middle stages.

- What is the specific problem they are encountering?

Users lose motivation because they are learning alone without external encouragement, they struggle with consistency which leads to drop -off before course completion.

- Where does this problem occur?

Inside Duolingo Courses where there is no structured way to connect with fellow learners .

- When does this problem arise?

According to the data points when users reach to intermediate levels and they lack motivation to continue

- Why is solving this problem important?

It will increase retention rate by keeping users engaged and boost their confidence as they get real world practice buddies and also making language practice more enjoyable.

Problem statement : Many duolingo users struggle with motivation and consistency when learning a new language alone and without responsibility students lose interest, fail to complete courses and finally drop out.

Solution :

- Course buddy for accountability and motivation.
- Create a Duolingo community feature to pair learners for real-time practice.
- Build community features such as forums or study groups where learners can interact, share experiences, and practice together.

Implementation :

How can we implement this? So this solution can be divided into two phases

- Phase -1 connecting with a study buddy (MVP)
 - In phase 1 - users can connect with their buddies based on language level and their goals, they can chat within the app and schedule practice sessions and complete weekly challenges to earn extra XP.
- Phase -2 community forums
- Calculating sprint duration we believe that the Phase-1 can be completed in 6-8 weeks.
 - Weeks 1-2 : Planning and UI/UX
 - Weeks 3-4 : Development and Integration
 - Weeks 5-6 : Testing and launch.

Metrics to be focused after post launch:

- % of users who have paired actively with a buddy
 - Retention rate and % of people who completed courses with paired users.
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By Team 29 :

- J Lakshmi Deepak
- ★ Nithin Suresh
- Sameer Ahamed

Sources and links :

- <https://autolingual.com/duolingo-review/>
- https://youtu.be/9KqrnBiyBQ8?si=h_W-knwSJ-07xsdL
- https://www.youtube.com/watch?v=iB6KldaeLr0&ab_channel=MBAMaven
- <https://blog.thelinguist.com/duolingo-review/>
- [Improving a Product. Case study: Duolingo | by Tejas Kashyap | Agile Insider | Medium](#)
- [Case Study: How Duolingo Keeps Users Coming Back for More](#)
- [Product-Led Growth \(PLG\) Strategy: A Case Study Of Duolingo - Startup Launchcode](#)
- [Survey: Top Reasons Why People Learn A New Language](#)
- [The 2024 Duolingo Language Report Presents Global Learning Trends](#)
-