



# bluble

The fun way to expand your language skills

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01

Concept

*bluble* is a VR add-on to  
your language course  
where you sort objects to  
optimize your grammar  
skills in a bold & colorful  
environment.



“Before I offered *bluble*, my students described practising **alone** at home as **dull and boring**.”

*Jessica, Teacher*



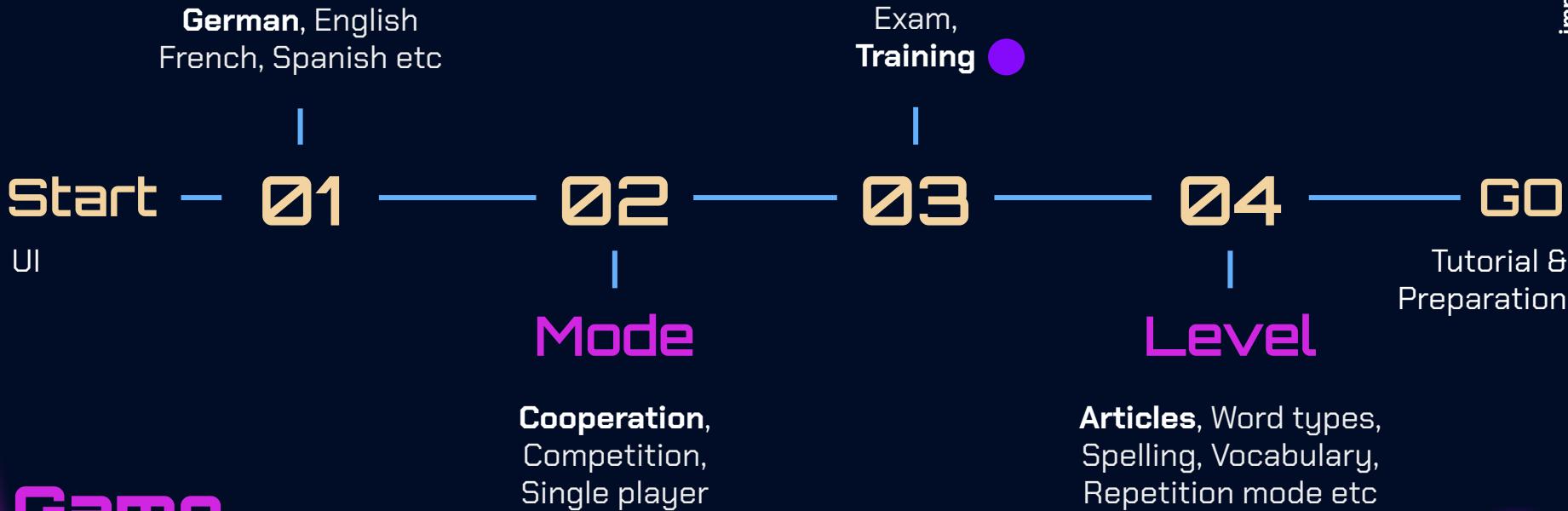
“With *bluble*, I can practise in a **motivating, immersive** environment **with my friends**.“

*John, Student*





# Game flow



## Language

German, English  
French, Spanish etc

## Submode

Exam,  
Training

Start — 01 — 02 — 03 — 04 — GO

UI

## Mode

Cooperation,  
Competition,  
Single player

## Level

Articles, Word types,  
Spelling, Vocabulary,  
Repetition mode etc

implemented



# bluble

Let's start!

## Bubbles

Bubbles with nouns  
emerge

## Interaction

Sorting the bubbles in with  
visual & auditory feedback

05 — 06 — 07

## Selection

On selection the  
pronunciation is played





# bluble

Let's start!

## Bubbles

Bubbles with nouns  
emerge

## Interaction — Multiplayer

Voice chat & passing  
bubbles over

05

06

07

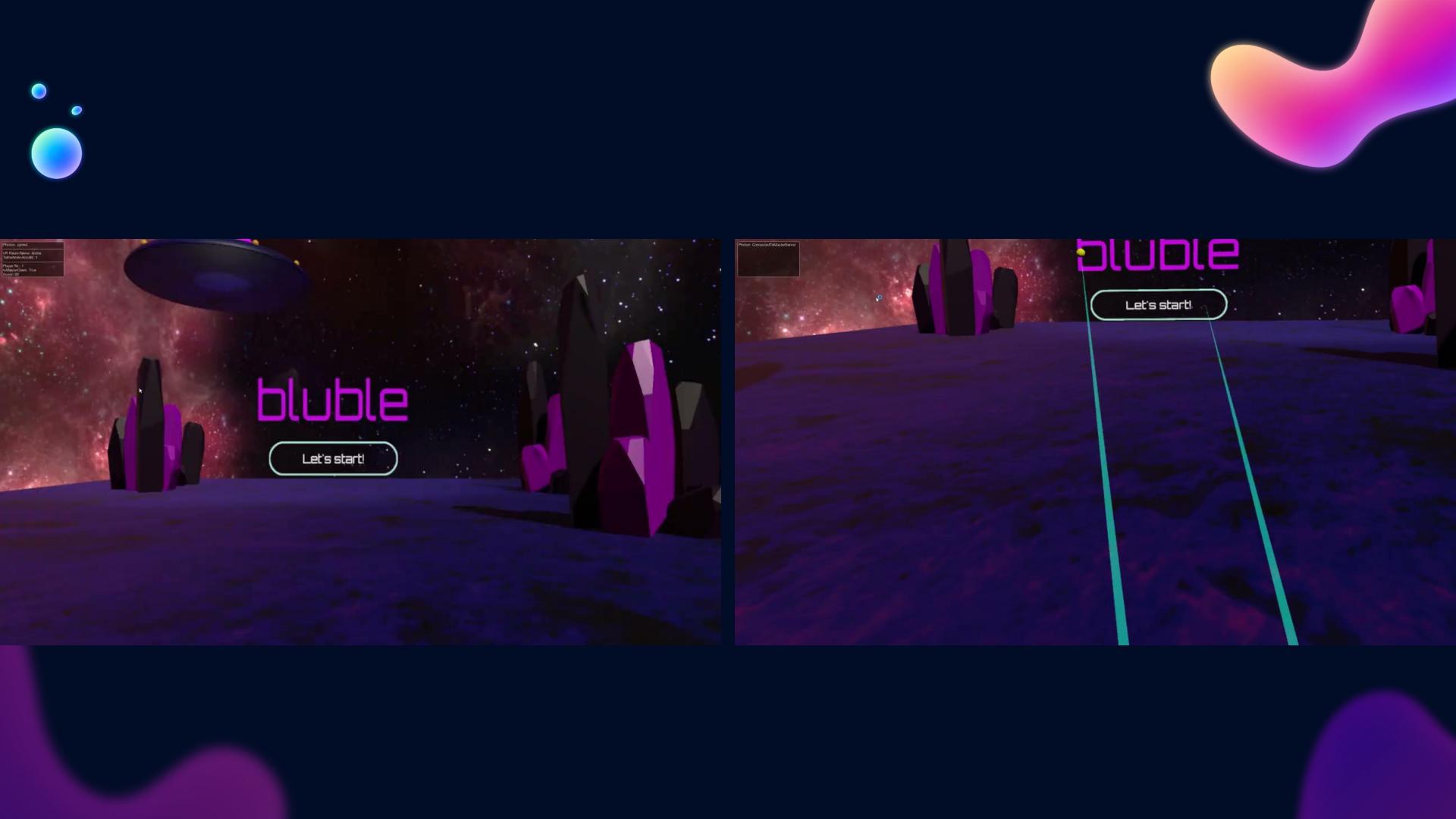
08

## Selection

On selection the  
pronunciation is played

## Hints

First: visual representation,  
**Second: translation**



## Bubbles

Bubbles with nouns  
emerge

## Interaction — Multiplayer

Voice chat & passing  
bubbles over

implemented

05

06

07

08

End

### Selection

On selection the  
pronunciation is played

### Hints

First: visual representation,  
**Second: translation**

when time is up or  
**everything is sorted**

**Results with  
solution**

Second round with hint [outlook]

Photon Joined  
VR Raum-Name: bluble  
Teilnehmer-Anzahl: 1  
Player Nr.: 1  
isMasterClient: True  
Score: 00

# bluble

Let's start!

02

# User Study

# User Study

**Our VR learning application is fun to use  
and intuitive for the user.**

**5** Participants

**3** Native German  
speakers      **2** With A1 German  
knowledge

**2** Word sets with randomized order

Introduction & Preparation

Test run 1  
with playtime & score

Test run 2  
with playtime & score

Follow-up interview &  
Questionnaires  
(UEQ & Motion Sickness)

# Key findings



## Overall feedback

Fun to play due to gamification, positive feedback, various suggested additions



## Motion Sickness

No to slight symptoms, positive feedback for seated operation, text blurriness in VR is problematic



## Learning & issues

Tendency for improvement in 2nd run, issues with crystal placement & pace



## User Experience

Positive results especially for Attractiveness and Dependability, mixed feedback for speed and less inventive

03

# Adaptations

# Adaptations



UI



Environment



Interaction

Add tutorial



Adjust floor color



Higher pulling speed



Pause, restart & quit



Add 3D models



Add hints (2nd stage)



Adjust label font sizes



Animation of models



Unsorted nouns return



based on user feedback

mainly already planned

# Adaptations



## Multiplayer

Sync & adaptations  
(speed, amount etc)



Selection highlighting



Pass-over



## Polish

Icons for articles



Particle effect



Add pronunciation



Additional audios



## “Bugs”

Visibility of UI



Restrictions  
interaction (freeze,  
floor, walls + roof)



Correct raycast  
targeting



mainly already planned

based on user feedback

Photon: Joined  
VR Raum-Name: bluble  
Teilnehmer-Anzahl: 1  
  
Player Nr.: 1  
IsMasterClient: True  
Score: 000

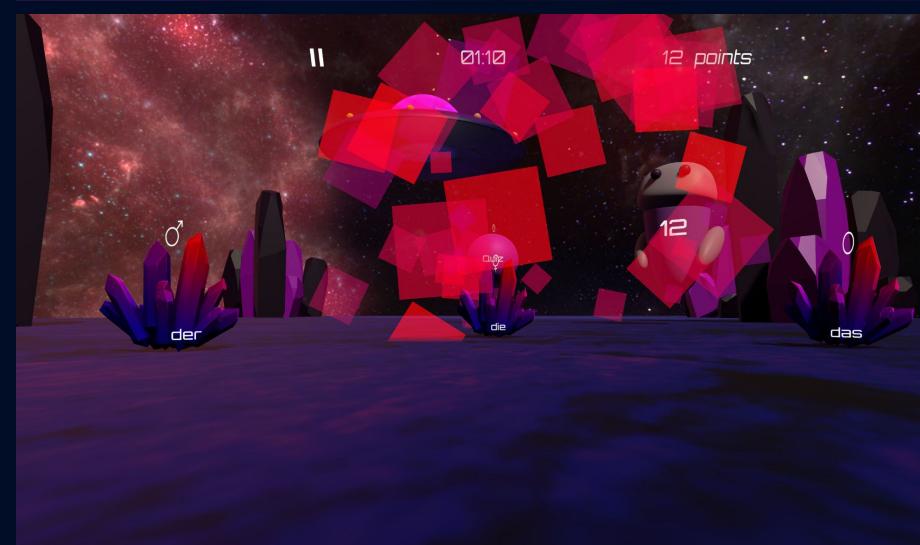
Photon: Joined  
VR Raum-Name: bluble  
Teilnehmer-Anzahl: 1  
  
Player Nr.: 1  
IsMasterClient: True  
Score: 000



Photon: Joined  
VR Raum-Name: bluble  
Teilnehmer-Anzahl: 1  
  
Player Nr.: 1  
IsMasterClient: True  
Score: 000

Photon: Joined  
VR Raum-Name: bluble  
Teilnehmer-Anzahl: 1  
  
Player Nr.: 1  
IsMasterClient: True  
Score: 000





04

# Outlook



## Language

German, English  
French, Spanish etc

## Submode

Exam,  
Training

|  
Start — 01 — 02 — 03 — 04 — GO



Statistics with progress,  
unlock levels, share &  
customize word sets

## Mode

Cooperation,  
Competition,  
Single player

## Level

Articles, Word types,  
Spelling, Vocabulary,  
Repetition mode etc

Bubbles

Interaction — Multiplayer

|

|

05

06

07

08

End

Selection

Hints

Results with  
solution

First: visual representation,  
Second: translation

Second round with hint

# Thanks!

Do you have any questions?