

MIXAP

First teacher workshop

MIXed reality authoring APplications
for and by **teachers** in EUrope

4 July 2025

Istanbul / Turkey



MIXAP
AUGMENTED PEDAGOGY

Authorisation to film?


Connect to internet

2. Workshop

What are we going to do today?

Workshop Turkey (BUF)

Program for the day:

1. Welcome and introduction 
2. Workshop (+ get-to-know-you activity)
3. Introduction to the features of MIXAP
4. Hands-on exploration
5. Exploration of the MIXAP community
6. Feedback (survey)

Icebreaker Activity: Name Game

Rules:

Everyone will share their name and how they're feeling right now in one word. But with a little twist: the word we use must start with the **first letter of our name.**

For example, **my name is Alice**, and I'm feeling '**attentive**' right now. So, I can introduce myself as '**Attentive Alice.**' Let's begin!"



MIXAP
AUGMENTED PEDAGOGY

What is MIXAP Project?

Erasmus + Project

MIXAP is an **international research** project with teachers and researchers for France, Denmark and Turkey.

It has 3 main objectives :

- Explore and define better evidence-based ways to integrate MR authoring for learning activities in schools
- Improve the open-source and free-to-use MIXAP authoring tool with teachers
- Bring together a vibrant and supportive international community of teachers

What is Mixed Reality?

Augmented Reality



- Overlays virtual information over the real world
- No interactions



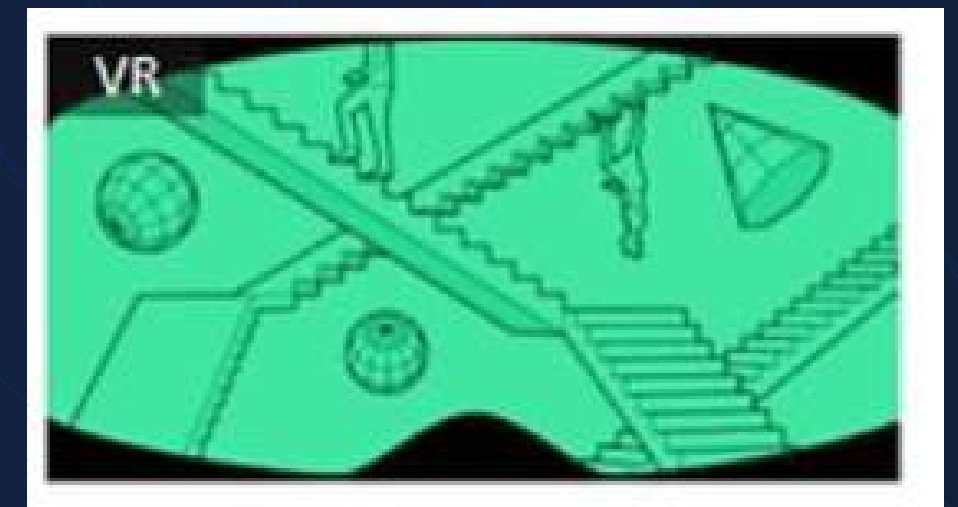
Mixed Reality



- Mixes virtual content into your world
- Interactions with the content



Virtual Reality



- Brings you in another world entirely
- Occludes your vision



Team Members (France -LMU)



Project Manager

Iza MAFISI-Schottman, Professor



Scientific Manager

Sebastien GEORGE



Quality Manager

Alexandra Da Cunha



Technology Manager

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Editing & Creating Videos

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Team Members (Denmark-DTU)



OER Manager
Md Saifuddin Khalid, PhD
Associate Professor



Academic Employee
Mahmuda Parveen
MA, BEd (Denmark)



Special Consultant
Marie Kjær
PhD

Team Members (Turkey-BUF)



Communication and Dissemination Manager

Aysegul LIMAN-KABAN
Assistant Professor



PhD Student

Zeynep ERSOY

Why should we use Mixed Reality in education?



“Read it in a book or see it with AR?” Turkey (Dikkartin Övez & Şeker)



Dikkartin Övez, F., & Sezginsoy Şeker, B. (2022). An augmented reality-supported interdisciplinary teaching application in primary education. *Balıkesir University Journal of Science*, 24(1), 313-334. <https://doi.org/10.25092/baunfbcd.995624>

“Read it in a book or see it with AR?”

Turkey (Dikkartin Övez & Şeker)

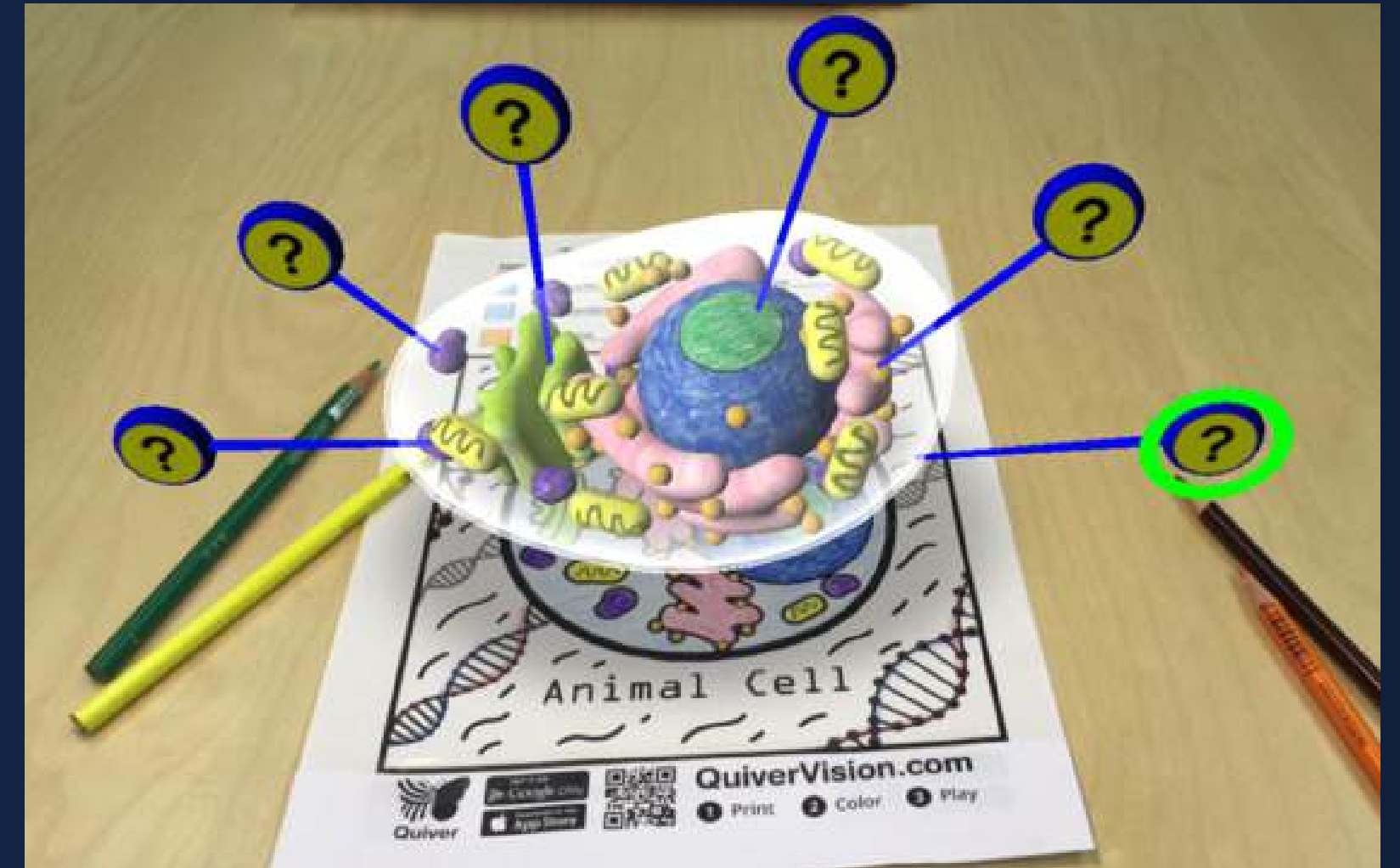


Objective: To examine the effect of AR-supported interdisciplinary content on the success and motivation of 4th grade students.

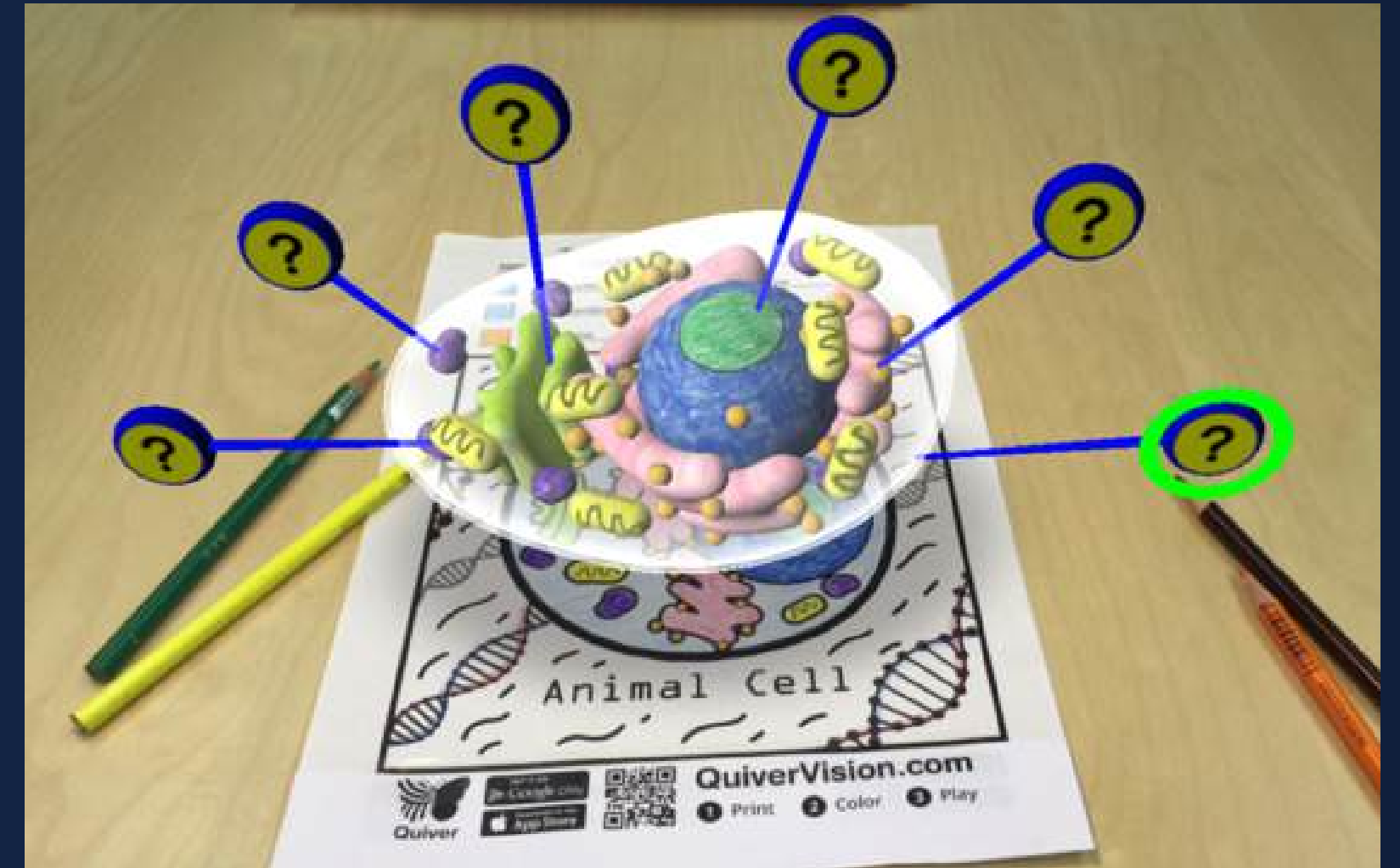
Compared environments: Traditional narration + textbook vs. AR-enriched content.

📌 **Striking result:** Students who used AR not only scored higher, but also participated more eagerly in class, describing learning as “like a game.”

Science – Teaching Cell Structure with AR (6th Grade, Turkey)



Science – Teaching Cell Structure with AR (6th Grade, Turkey)



Students examined cell components through a three-dimensional AR model. They could learn what each component did by clicking on it. The results of the delayed achievement test conducted three weeks after the final exam showed that the AR group had a much higher rate of information recall.

🧠 Why was it so effective?

Students visually “mapped” the concepts and restructured the information they learned using their “own learning paths.”

“Cooking Math” AR Application (6th Grade Mathematics) Greece



Volioti, C., Orovas, C., Sapounidis, T., Trachanas, G., & Keramopoulos, E. (2023). Augmented Reality in Primary Education: An Active Learning Approach in Mathematics. *Computers*, 12(10), 207. <https://doi.org/10.3390/computers12100207>

“Cooking Math” AR Application (6th Grade Mathematics) Greece



Objective: To enable sixth-grade students to learn mathematical concepts based on real life. With the AR-supported “Cooking Math” application, daily activities such as dough courses and recipe measurements have been transformed into mathematical problems.

Compared environment: AR-based active learning environment vs. traditional classroom instruction.

Notable finding: The AR environment enabled students to learn complex mathematical concepts intuitively; students demonstrated high levels of engagement in the activity and experienced meaningful growth in their problem-solving skills.

Teaching English Vocabulary with the AREWL System (Grades 1–2) China



Haq, I. (2023). Impact of Augmented reality system on elementary school ESL learners in country side of china: Motivations, achievements, behaviors and cognitive attainment. ArXiv, abs/2309.09894.

Teaching English Vocabulary with the AREWL System (Grades 1–2) China



Objective: To make English vocabulary learning meaningful and increase learning motivation in rural schools with limited financial resources by using AR. The AREWL system supports vocabulary with 3D objects, animations, and quizzes.

Comparative environment: AR-supported vocabulary learning system vs. traditional vocabulary memorization method.

Striking finding: Students' motivation levels increased significantly, and the AR group's test scores were statistically significantly higher. Both teachers and students evaluated the system positively.

THE BENEFITS OF USING MIXED REALITY IN EDUCATION



Cognitive Benefits

Conceptual understanding, problem solving, attention, and focus



Sensory advantages:
Increased motivation, positive attitudes



Social benefits:
Cooperation, communication, and interaction



Theoretical alignment:
Constructivist,
Experiential, sociocultural, game-based learning overlap

We need you !

We need **Pioneer Teachers** to:

- find new ways of using Mixed Reality (MR) in classrooms
- improve the MIXAP authoring tool
- creating a community of teachers

1 group of pioneer teachers in each country



3. MIXAP Tool

What can you do with MIXAP?

MIXAP authoring tool

MIXAP is a **free, open-source** authoring tool built with 20 French teachers.

It allows you to **create MR activities** for your classroom with the resources you already use.

MIXAP can be used on mobile phones, **tablets, or computers**. You don't even need to download an app!

Test MIXAP on your device

<https://mixap.univ-lemans.fr/>



Test MIXAP on your device

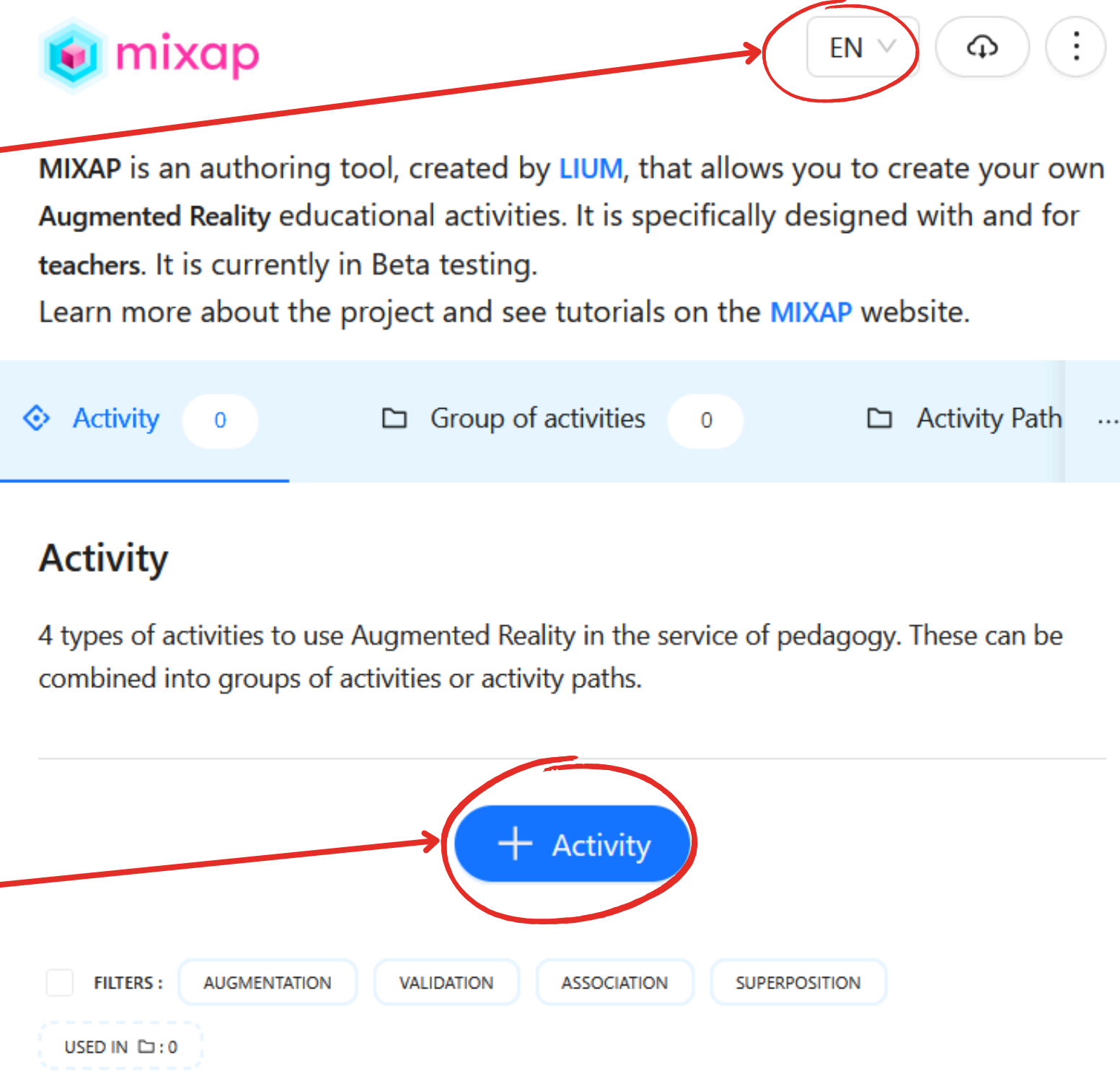
choose language

no account

no internet

create new

activity



The screenshot displays the MIXAP web interface. At the top left is the MIXAP logo. In the top right corner, there is a language selection dropdown menu currently set to 'EN', which is circled in red. Below the logo, there is a paragraph of text describing MIXAP as an authoring tool created by LIUM, designed for teachers, and currently in beta testing. Below this text is a navigation bar with three items: 'Activity' (0), 'Group of activities' (0), and 'Activity Path' (...). The main content area is titled 'Activity' and contains a paragraph explaining that there are 4 types of activities to use Augmented Reality in the service of pedagogy, which can be combined into groups or activity paths. At the bottom of the main content area, there is a blue button with a white plus sign and the text '+ Activity', which is also circled in red. Below the button, there is a 'FILTERS:' section with four buttons: 'AUGMENTATION', 'VALIDATION', 'ASSOCIATION', and 'SUPERPOSITION'. At the very bottom, there is a 'USED IN' section with a folder icon and the number '0'.

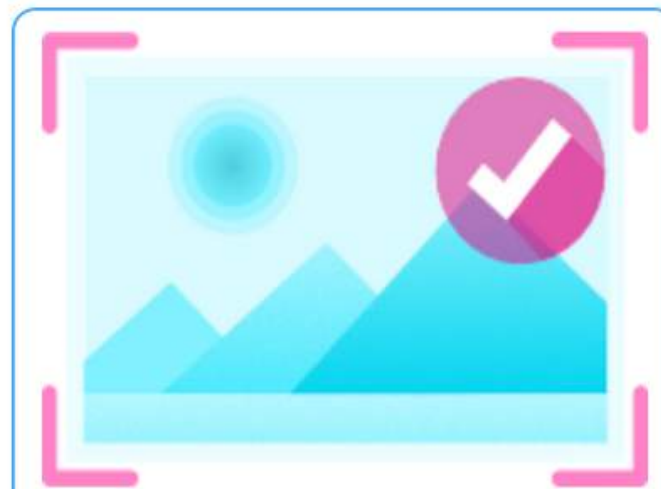
Test MIXAP on your device

Select your path type



Augmented activity

Bring your teaching materials to life by displaying multimodal resources (texts, images, videos, audio, 3D models...).



Search and Find

MIXAP automatically validates correct answers and gives hints when time runs out or the wrong option is chosen.



Pair Association

Intuitively connect images, ideas, or answers. Ideal for creating matching-pair activities.

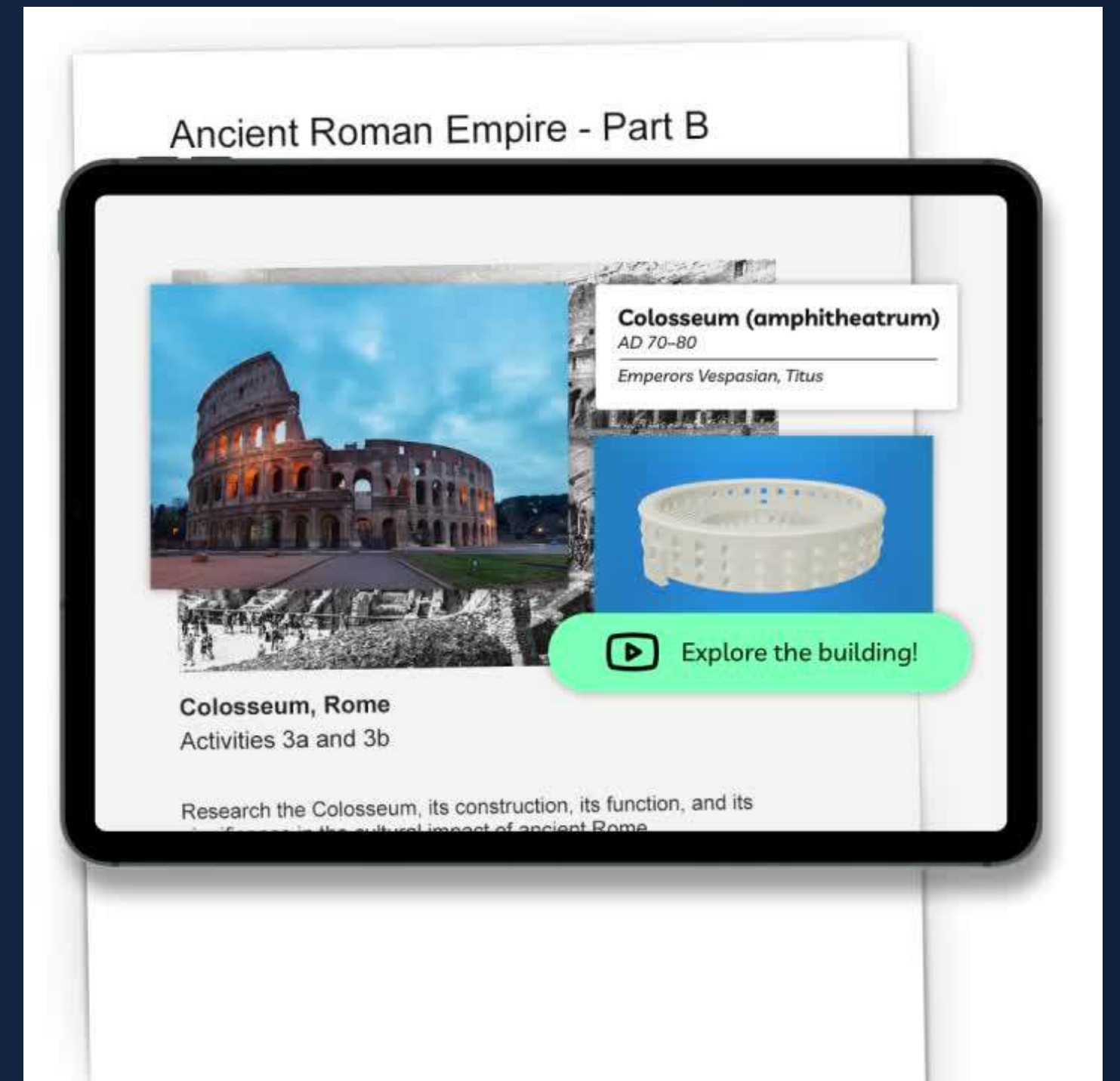


Information layers

Gradually reveal different levels of content to allow students to explore topics in greater depth.

Augmented Activity

Whether it's a poster, book, or worksheet, bring your classroom to life by enriching your teaching materials with text, images, videos, audio, and 3D models!



Augmented Activity

Add images, videos, and text to classroom resources

Example: Add additional information to the pages of a book, worksheet, or professional materials.



Augmented activity

Bring your teaching materials to life by displaying multimodal resources (texts, images, videos, audio, 3D models...).

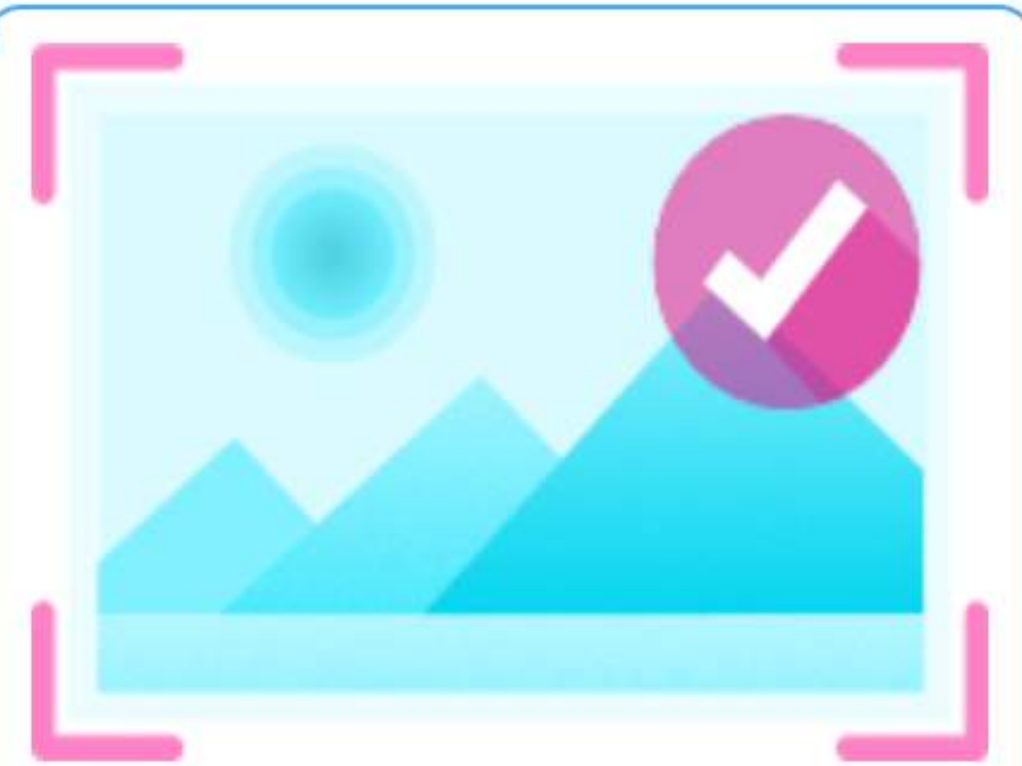
Search and Find



Search and Find

Ask students to find an image within a certain time frame.

Example: An activity where children search for and find animals hidden in a picture, which they can do on their own.



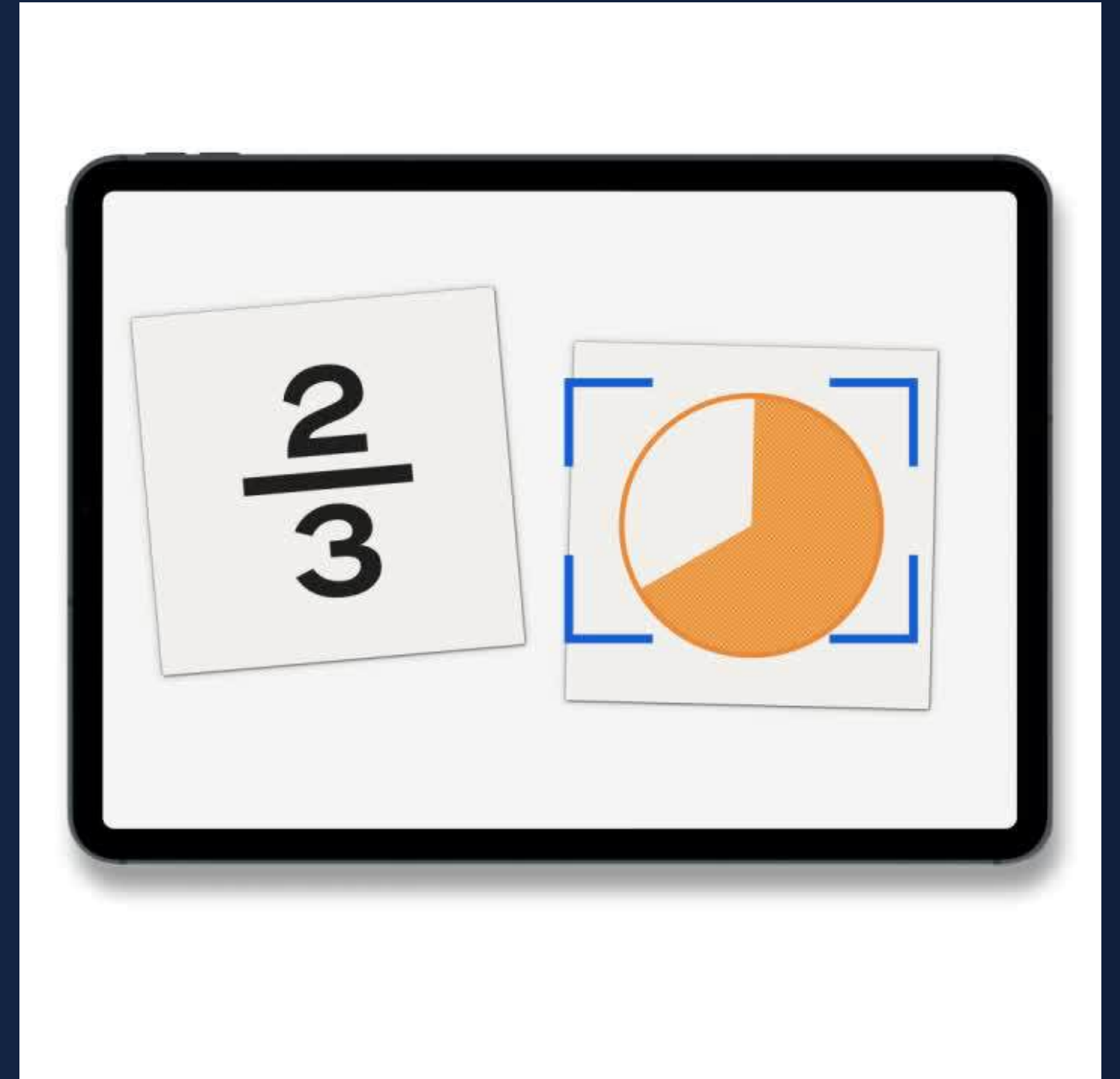
Search and Find

MIXAP automatically validates correct answers and gives hints when time runs out or the wrong option is chosen.

Pair Association

Ask students to find two related images.

Example: Find the “A” card corresponding to the airplane image, the situation corresponding to the plot diagram, or the molecule corresponding to the chemical formula.



Pair Association

Ask students to find two related images.

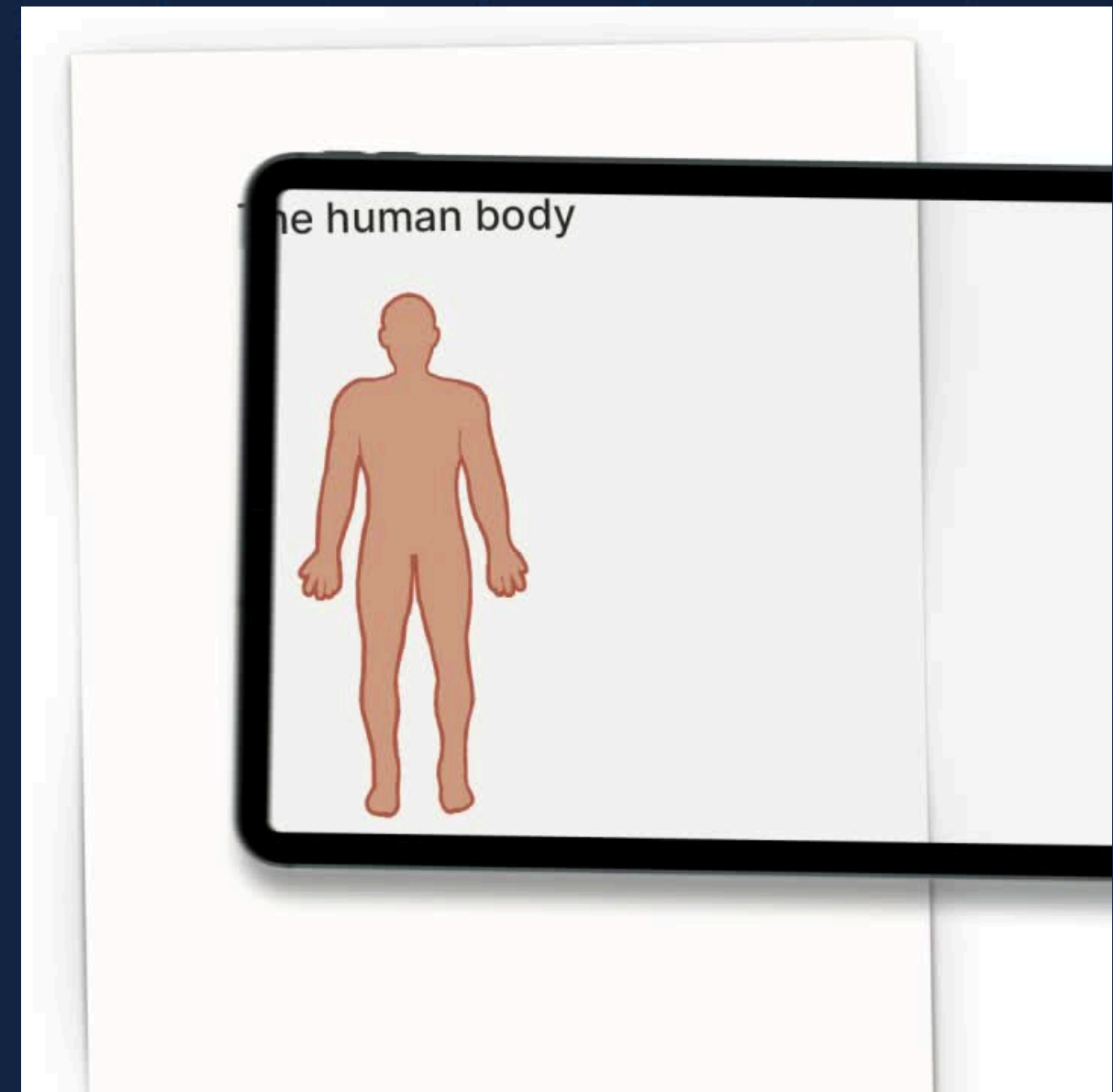
Example: Find the “A” card corresponding to the airplane image, the situation corresponding to the plot diagram, or the molecule corresponding to the chemical formula.



Information Layers

Add layers of information to an image

Example: See corrections to a “fill-in-the-blank exercise,” view the muscular and circulatory systems of the human body, or see the evolution of a city map over 1,000 years.



Ask AI

Design an activity where students can interact directly with AI by asking questions about the resource. By placing their fingers on a specific area, they can focus AI's attention on topics that spark their curiosity.



MIXAP activity tutorial

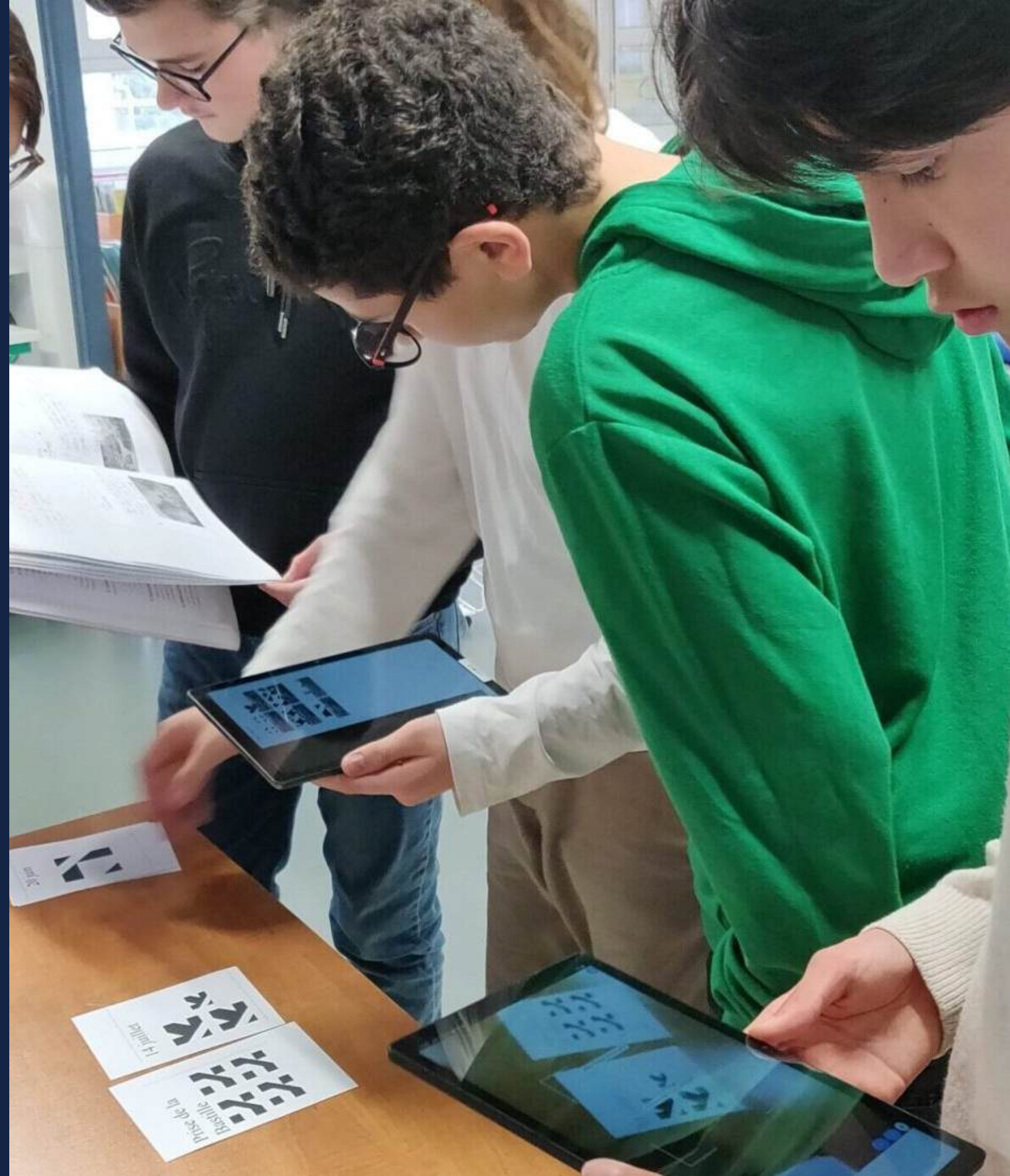
https://mixap-lium.univ-lemans.fr/wp-content/uploads/sites/8/2023/11/Tutoriel-V2-MIXAP-En_compressed.pdf



Why use MR?

MIXAP offers:

- interactive experience with tangible objects
- multimedia resources
- automatic correction
- fosters collaboration
- differentiated learning



4. MIXAP Hands-On Exploration

How can I use MIXAP for my classes?

Step 1

Try to apply existing lesson plans



Step 2 - 40 minutes

Start creating the activities in your lesson plan with MIXAP

- find resources
- print them out
- create activities in MIXAP
- test them with participants



note taking

PACT framework



5. Questionnaires and focus groups

How will you use MIXAP and what needs to be improved?

Questionnaire



Focus group - 30 minutes

Question 4. Which **new features** should be included in MIXAP?

Question 7. What **support and training** would help in implementing MIXAP?



6. Explore MIXAP community

How can we set up a teacher network?

Institutional Partnerships

(Collaborating with teacher training institutions and policymakers)



Co-Creation Events & Community Conferences

(hackathons, content co-creation workshops, and peer review sessions and event for celebrate achievements)



Integration with Social Media

(to reach a wider audience)



Ideas for Community

User-Generated Content

(sharing MR projects, lesson plans, and experiences)



Collaborative Spaces

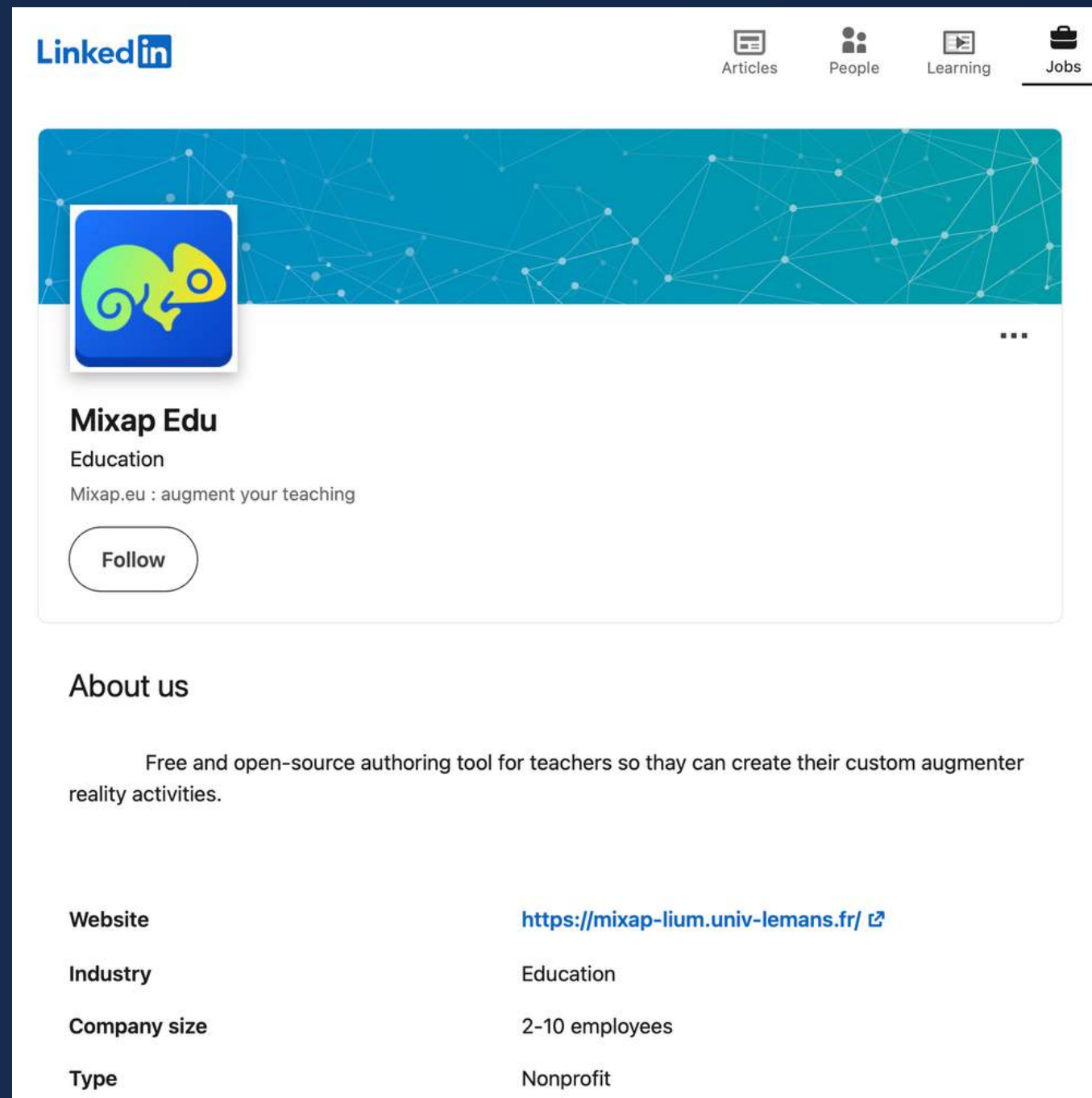
(discussion forums, working groups)



Which platforms would you prefer to share on?

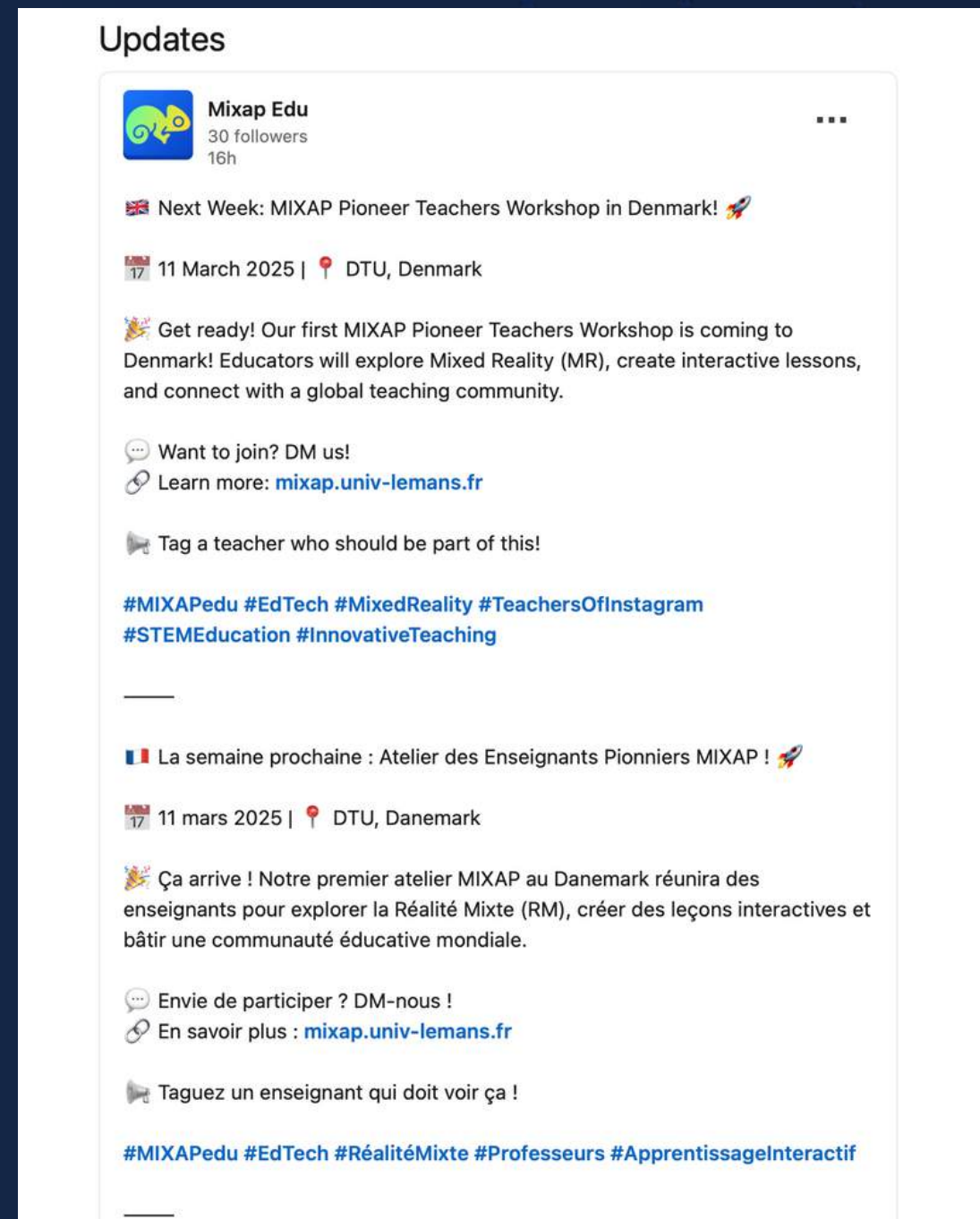


Social Media (LinkedIn)



The screenshot shows the LinkedIn profile for Mixap Edu. The profile picture is a blue square with a green and yellow stylized animal head. The banner image is a blue background with a white network pattern. The profile name is "Mixap Edu" with the industry "Education" and the tagline "Mixap.eu : augment your teaching". A "Follow" button is visible. Below the profile, the "About us" section describes the company as a "Free and open-source authoring tool for teachers so they can create their custom augmented reality activities." A table of company information is provided at the bottom.

| | |
|--------------|---|
| Website | https://mixap-lium.univ-lemans.fr/ |
| Industry | Education |
| Company size | 2-10 employees |
| Type | Nonprofit |



The screenshot shows a LinkedIn update from Mixap Edu, posted 16 hours ago. The update is in French and English. It announces a "Next Week: MIXAP Pioneer Teachers Workshop in Denmark!" on "11 March 2025" at "DTU, Denmark". The text describes the workshop as an opportunity for educators to explore Mixed Reality (MR), create interactive lessons, and connect with a global teaching community. It includes a call to action: "Want to join? DM us!" and a link to "mixap.univ-lemans.fr". The update also features a list of hashtags: #MIXAPedu #EdTech #MixedReality #TeachersOfInstagram #STEMEducation #InnovativeTeaching. A second update below it repeats the information in French: "La semaine prochaine : Atelier des Enseignants Pionniers MIXAP !" and "Ça arrive ! Notre premier atelier MIXAP au Danemark réunira des enseignants pour explorer la Réalité Mixte (RM), créer des leçons interactives et bâtir une communauté éducative mondiale." It also includes the same call to action and link.



You can scan QR code

Social Media (Instagram)



You can scan QR code

mixapedu Follow Message ...

5 posts 35 followers 13 following

mixap.edu
MIXed reality authoring APplications for and by teachers in EUrope
#mixapedu #augmentedpedogogy
mixap.univ-lemans.fr

POSTS TAGGED

MIXAP AUGMENTED PEDAGOGY

MIXAP Denmark Workshop for teachers

How to easily augment your lessons with the free MIXAP web app

MIXAP is an international research project with teachers and researchers for Le Mans University (France), Technical University of Denmark (Denmark) and Bahçeşehir University (Turkey).

DTU

BAU Bahçeşehir University

MIXAP: Empowering teachers with easy, interactive Mixed Reality lessons—no downloads, just creativity!

the project has support from Erasmus+ and is b

Instagram Log In Sign Up

mixapedu and 3 others

mixapedu 🇬🇧 Next Week: MIXAP Pioneer Teachers Workshop in Denmark! 🚀

11 March 2025 | DTU, Denmark

Get ready! Our first MIXAP Pioneer Teachers Workshop is coming to Denmark! Educators will explore Mixed Reality (MR), create interactive lessons, and connect with a global teaching community.

Want to join? DM us!
Learn more: mixap.univ-lemans.fr

Tag a teacher who should be part of this!

#MIXAPDenmark #EdTech #MixedReality

9 likes 19 hours ago

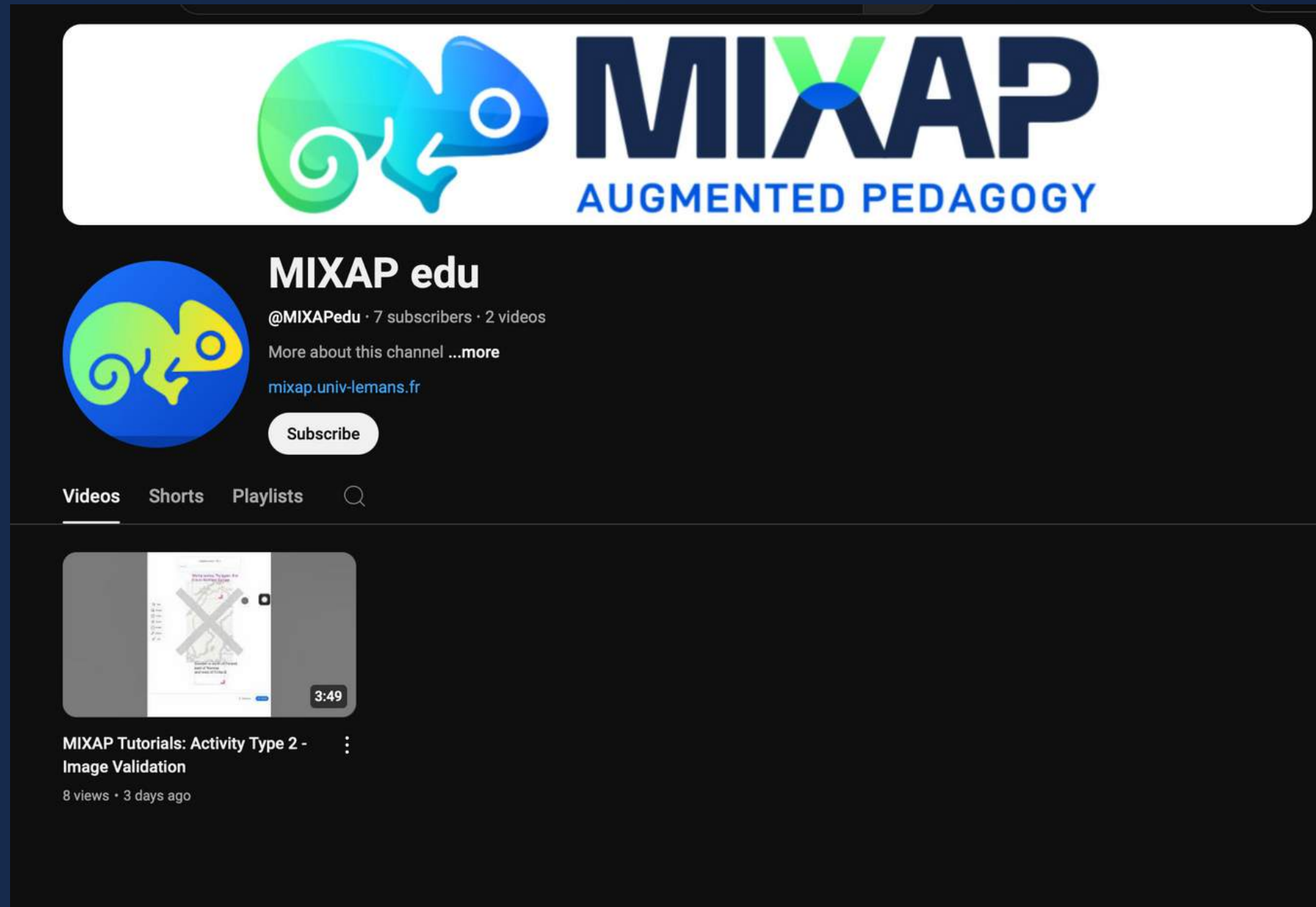
Log in to like or comment.

MIXAP AUGMENTED PEDAGOGY

MIXAP Denmark Workshop for teachers

How to easily augment your lessons with the free MIXAP web app

Social Media (YouTube)



The screenshot shows the YouTube channel page for MIXAP edu. At the top, there is a banner with the MIXAP logo (a stylized blue and green chameleon) and the text "MIXAP AUGMENTED PEDAGOGY". Below the banner, the channel name "MIXAP edu" is displayed, along with the handle "@MIXAPedu", 7 subscribers, and 2 videos. A "Subscribe" button is visible. The channel's website "mixap.univ-lemans.fr" is also listed. Below the channel information, there are tabs for "Videos", "Shorts", and "Playlists". A video thumbnail is shown with the title "MIXAP Tutorials: Activity Type 2 - Image Validation" and a duration of 3:49. The video has 8 views and was uploaded 3 days ago.



You can scan
QR code

Social Media - Bluesky



You can scan
QR code

A screenshot of the Bluesky profile for MIXAP Edu. The profile picture is a blue circle with a yellow and green chameleon. The name is 'MIXAP Edu' and the handle is '@mixapedu.bsky.social'. The bio states: 'MIXed reality authoring APplications for and by teachers in EUrope #mixapedu #augmentedpedogogy mixap.univ-lemans.fr'. Below the bio are navigation tabs for 'Gönderiler', 'Yanıtlar', 'Medya', 'Videolar', and 'Be'. A post from 5 days ago is visible, announcing a 'Next MIXAP Teacher Workshop Tomorrow, May 7th, 2025 at Atelier Canopé Laval!'. The post text includes: 'Following the workshop we held in Denmark in March, we will now hold the MIXAP teacher workshop in France. Explore Mixed Reality (MR), create interactive lessons & connect! Info: mixap.univ-lemans.fr #mixapedu #teachers'. At the bottom of the post, there is a blue banner for 'MIXAP France Workshop' and a small profile picture icon.

Website



You can scan QR code

Work in progress : <https://zr9vpbngyp.preview.infomaniak.website/>

The screenshot shows the top navigation bar with the MIXAP logo on the left and a green button labeled "Open the app" with an external link icon on the right. The main content area has a blue background. On the left, there is a text block: "A free, simple tool to **improve your existing lessons** with augmented reality." Below this is a green button that says "Give it a try!". On the right, there is a white card titled "Ancient Roman Empire - Part B" which features an image of the Colosseum and a 3D model of it. A green button with a play icon and the text "Explore the current-day building" is overlaid on the 3D model.

The screenshot shows the "Educational resources" page. The top navigation bar is identical to the home page. Below the header, the text reads "Find useful resources and ideas to make the most out of MIXAP!". Under the heading "Lesson plans", there is a sub-heading "Get started with MIXAP" followed by the text "using these lesson examples, or use them as a basis for your next activity.". Below this is a grid of subject categories, each in a white box with a corresponding icon: "Math" (calculator icon), "Sciences" (atom icon), "Arts" (pencil icon), and "Languages" (text icon).

Badges and Certificates



7. Feedback

How can we improve the workshop?



MIXAP

AUGMENTED PEDAGOGY

mixap-lium.univ-lemans.fr

#mixapedu



mixap.edu@gmail.com



Erasmus+



Co-funded by
the European Union



Le Mans
Université



BAU
Bahçeşehir University



@mixapedu



MIXAP Edu



@MIXAPedu



@mixapedu.bsky.social