

Brainstorming Session

Date: 20/03/2021

Duration: 1 hour

The brainstorming session took place through google meet. Everyone on the team participated in the session and the brainstorming roles were the following:

Facilitator : Emmanouela Siougkari

Note-taker : Anna Maria Meta, [Thomas Papantoniou](#)

Time-keeper : Elpida Pateromichelaki

The objective of this session was to generate ideas that are related to learning and teaching technologies and end up with 5 of them which in our opinion were the most worthy of further consideration in order to go into the idea screening process.

Idea Generation

1. Online meeting with interaction features.
2. A system that collects grades and feedback from lecturers in order to propose dissertation projects.
3. An online classroom platform that will be provided free by our company and will sell ads related to school products and books through the platform.
4. A system that will act as a badge collection that will automatically give a badge of every lesson for every student that took part in it.
5. An application that will keep track of all marks for every level and everything that got a mark in the school years.
6. A new generation interactive whiteboard for classrooms.

7. A fully automated absence tracking system with card/phone/qrcode reading devices outside of classrooms.

8. A digital classroom network that questions can be anonymously asked.

9. An application that will convert coursework maps into an interactive calendar that students can mark progress and get several warnings about deadlines.

10. A quiz / exam creation software that will help teachers create digital quizzes and students with time management.

11. Software that helps students check for plagiarism before submitting.

12. Software that helps students correct grammatical and vocabulary mistakes that will be free and will make profit through ads and donations.

13. An application that will allow live and anonymous affective feedback from the students to the teachers throughout the semester.

14. An application that will keep track of absences and give a warning to students automatically letting them know when they are running out of them.

15. Software that will help in creating documents with lecturer criteria automatically implemented at the start.

16. AI that will automatically mark a report , essay ,etc.

17. Software that will make early coding days easier with suggestions and auto correct mistakes or pointing them out in a language students can understand and not exceptions like java does.

18. A system that recognizes the face of a student(before s/he enters the classroom) and automatically takes absences.

19. A button that will be placed at every student's desk and can be pressed if the student wants to ask a question.

20. Library application book map.

21. A software which can correct student's exams and quizzes. A barcode with each student's data will be on the quiz so that the student will be able to see the marking of the quiz online using the same barcode.
22. An application that students can create a profile and other students can evaluate them in terms of teamwork and other criteria in order for them to be more sure in team creation.
23. Software that will translate some difficult terms in students' mother languages.
24. A system that will help students decide on their final year project.
25. An application that the lecturer will create a coursework with criteria and checkpoint and the teams or individuals can mark down their progress.
26. An evaluation system about university or school premises where students can report problems or suggest future ideas.
27. An application for the elections between the students that will let them vote and let the candidates create a profile about themselves and share their ideas.
28. A network that will inform students in a more quick way about events that take part in the campus or company visits etc.
29. Integrated huge touchscreen inside the desks(with a button).
30. A smart glove with necessary controls to navigate through slides for the lecturer or whoever else present.
31. An application that students can find help for different units they are not so good at.
32. A platform that will let students keep notes and put them in specific bookmarks based on the lesson or the title of the bookmark.
33. A platform that will have the lessons recorded for students that do not want to read the book but just listen to it.

Idea Reduction

Pruning Ideas - Step 1

After our brainstorming session we discussed the ideas that are NOT worthy of further consideration and we ended up with the following:

1. Online meeting with interaction features.
2. An application that will keep track of all marks for every level and everything that got a mark in the school years.
3. A new generation interactive whiteboard for classrooms.
4. A fully automated absence tracking system with card/phone/qr reading devices outside of classrooms.
5. An application that will convert coursework maps into an interactive calendar that students can mark progress and get several warnings about deadlines.
6. A quiz / exam creation software that will help teachers create digital quizzes and students with time management.
7. Software that helps students check for plagiarism before submitting.
8. Software that helps students correct grammatical and vocabulary mistakes that will be free and will make profit through adds and donations.
9. An application that will keep track of absences and give a warning to students automatically letting them know when they are running out of them.
10. Software that will help in creating documents with lecturer criteria automatically implemented at the start.
11. Software that will make early coding days easier with suggestions and auto correct mistakes or pointing them out in a language students can understand and not exceptions like java does.

12. A button that will be placed at every student's desk and can be pressed if the student wants to ask a question.
13. An application that students can create a profile and other students can evaluate them in terms of teamwork and other criteria in order for them to be more sure in team creation.
14. Software that will translate some difficult terms in students' mother languages.
15. An application that the lecturer will create a coursework with criteria and checkpoint and the teams or individuals can mark down their progress.
16. An application for the elections between the students that will let them vote and let the candidates create a profile about themselves and share their ideas.
17. A network that will inform students in a more quick way about events that take part in the campus or company visits etc.
18. An application that students can find help for different units they are not so good at.
19. A platform that will have the lessons recorded for students that do not want to read the book but just listen to it.

Grouping Ideas - Step 2

Dissertation related systems

- A system that collects grades and feedback from lecturers in order to propose dissertation projects. (ID01)
- A system that will help students decide on their final year project. (ID02)

Marketing and Sales

- An online classroom platform that will be provided free by our company and will sell ads related to school products and books through the platform. (ID03)

Hardware

- Integrated huge touchscreen inside the desks(with a button). (ID04)
- A smart glove with necessary controls to navigate through slides for the lecturer or whoever else present. (ID05)

New features for students

- Library application book map. (ID06)
- A platform that will let students keep notes and put them in specific bookmarks based on the lesson or the title of the bookmark. (ID07)
- A digital classroom network that questions can be anonymously asked. (ID08)

Taking absences

- A system that recognizes the face of a student(before he enters the classroom) and automatically takes absences. (ID09)

Feedback and Marking

- A software which can correct student's exams and quizzes. A barcode with each student's data will be on the quiz so that the student will be able to see the marking of the quiz online using the same barcode. (ID10)
- AI that will automatically mark a report, essay, etc (ID11)
- A system that will act as a badge collection that will automatically give a badge of every lesson for every student that took part in it. (ID12)

Evaluation

- An evaluation system about university or school premises where students can report problems or suggest future ideas. (ID13)
- An application that will allow live and anonymous marking from the students to the teachers throughout the semester. (ID14)

Defining Features - Step 3

ID	Category	Brainstormed Feature	Feature Definition
01	Dissertation related system	Dissertation project selection depending on grades	A system that will propose dissertation projects to students based on their higher grades and their lecturers' feedback.
02	Dissertation related system	Dissertation proposals system	Using a ranking system students will be able to get more information about subjects to choose from.
03	Marketing and Sales	Sell ads related to school products	This idea aims into creating an ecosystem where businessmen can advertise their products in a more targeted group by providing to stakeholders a more organized e- classroom.
04	Hardware	Touchscreen on desks	A huge screen that will act as a computer but everything will be integrated inside a touch screen. Corona inspired feature because it is easier to clean a desk than a keyboard.
05	Hardware	Smart glove	Using gyroscopes and touchpads, the glove will act as a presentation controller easier than the original controller and more fun. A laser pointer can be added too.
06	New Features for students	Library application book map	A book map that will show to the students where the books are digitally in the physical location.
07	New Features for students	Bookmark application for units	An application that will allow the student to make notes for a specific sentence or part of the lecture and keep the notes on different bookmarks.
08	New Features for students	Anonymously asking questions	Live anonymous questions can be asked during the lesson through their phone for students that feel shy about asking them in person.
09	Taking Absences	Face recognition system	A system that will recognize the face of the student before entering the class and automatically marks them as present or gives them an absence if they do not show up.

10	Feedback and Marking	Barcode and tracking progress	Every quiz during an examination will have a barcode with each student's data. There will be a software which will mark every quiz and finally the student will be able to see the marking using the same barcode with their data.
11	Feedback and Marking	AI system	The AI will learn to act as a lecturer with an implemented methodology, will correct mistakes and make decisions about whether a coursework is on subject and assess it. This system is targeting universities with huge amounts of students.
12	Feedback and Marking	Badges collection	Each unit will have a specific badge which is going to go at the student's CV under the section of 'personal skills' and these badges are going to be authorized by every lecturer which is more trustworthy and official.
13	Evaluation	Campus evaluation	A system that will let students report problems about facilities or point out good features.
14	Evaluation	Live evaluation of lecturers	A system that will allow students evaluate the lecturer whenever they have something to report about them.

Prioritizing Ideas - Step 4

ID	Critical / value of 9	Important / value of 3	Useful / value of 1	Total
01	-	3, 3, 3, 3	-	12
02	9	3, 3	1	16
03	9	3,3	1	22
04	9, 9	3	1	22
05	9, 9, 9	3	-	30
06	9	3, 3, 3		18
07	-	-	1, 1, 1, 1	4

08	-	-	1, 1, 1, 1	4
09	-	3	1, 1, 1	6
10	9	3, 3	1	16
11	9,9,9	3	-	30
12	-	3, 3, 3	1	10
13	9	3, 3, 3	-	18
14	9, 9, 9	3	-	30

30 points

- AI that will automatically mark a report, essay, etc (ID11)
- An application that will allow live and anonymous marking from the students to the teachers throughout the semester. (ID14)
- A smart glove with necessary controls to navigate through slides for the lecturer or whoever else present. (ID05)

22 points

- Integrated huge touchscreen inside the desks(with a button). (ID04)
- An online classroom platform that will be provided free by our company and will sell ads related to school products and books through the platform. (ID03)

18 points

- Library application book map. (ID06)
- An evaluation system about university or school premises where students can report problems or suggest future ideas. (ID13)

The ideas that are going to the idea screening process were the ones which gained 30 and 22 points.

Idea Screening

PMI Analysis

ID03

PLUS	MINUS	INTERESTING
Free to use	Google Ads	Complete Classroom
Targeted Ads	GDPR	
Profitable	Annoying for students	

ID04

PLUS	MINUS	INTERESTING
No need for carrying books.	Cost	Fun to use
Easier to clean	Possibility for mistakes	Unique system
User Friendly	Students may get distracted	
Environmental Friendly		

ID05

PLUS	MINUS	INTERESTING
Easy to use	Cost	Fun to use
Time efficient	Hygiene Problems	
Multiple stakeholders		

ID11

PLUS	MINUS	INTERESTING
Time efficiency	AI is not a human - high probability for mistakes	
Not specific hardware required		
Effortless for a lecturer		

ID14

PLUS	MINUS	INTERESTING
Anonymous	Conflicts after evaluation	Freedom of speech
Accessible	Possible liars	Honesty
Useful for introverted people		

In conclusion the two ideas out of the five that the team considered as best were:

- ID03: An online classroom platform that will be provided free by our company and will sell ads related to school products and books through the platform
- ID04: Integrated huge touchscreen inside the desks(with a button).