

ZOOM- 提问功能改进 ZOOM - Asking Questions

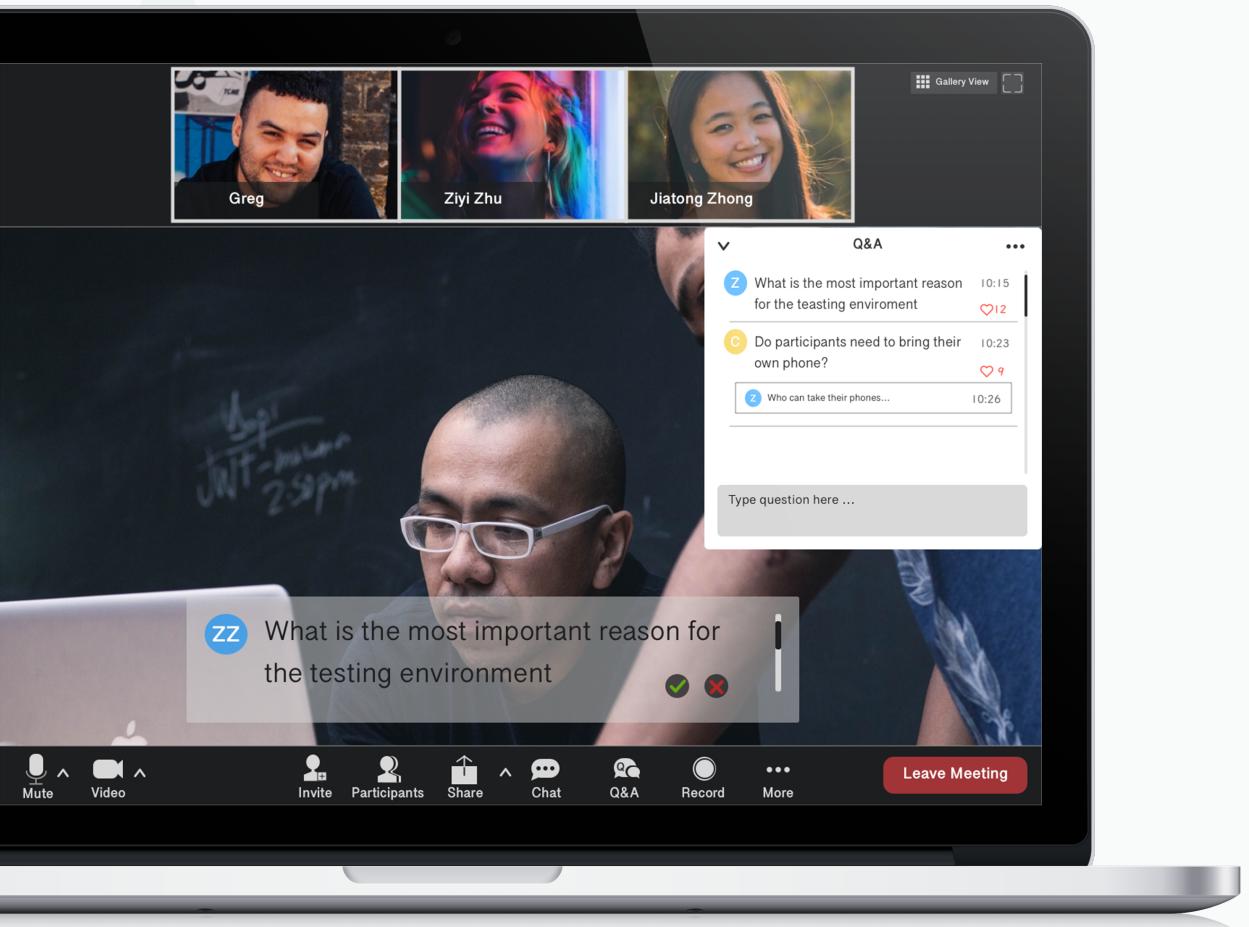
Ziyi Zhu (Design Leader)

Jiatong Zhong (Design Implementer, Finisher)

Grigorios Georgakis (Resource Investigator)

ZOOM - Asking Questions

简介



背景：疫情开始，远程教育成为主流，学生提问和学习遇到困难。

设计目标：解决学生远程上课不愿意提问影响学习质量的痛点。

目标用户：远程上课时有向老师提问需求的学生

设计挑战：ZOOM提问改进针对学生提问混乱、重复、被老师忽略的问题进行重新设计。

ZOOM - Asking Questions

设计流程



Discover

Brainstorming
Interviews
Contextual Inquiry



Define

Nine Dimensions
Affinity Diagrams
Personas
The 5 Whys



Develop

Bodystorming
Worst Possible Ideas
Prototype
User Test

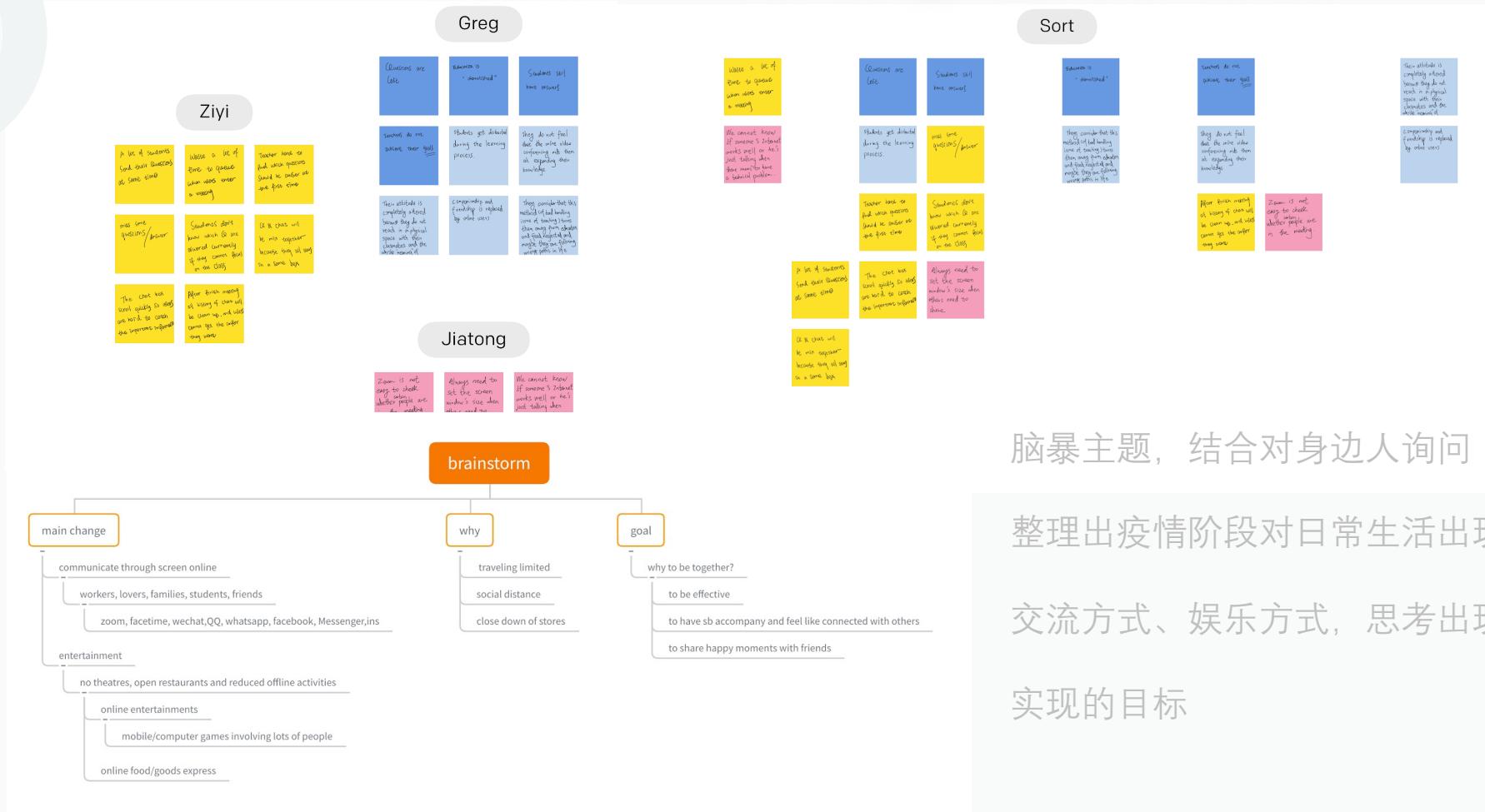


Deliver

Finalize
Present
Make Workbook

ZOOM - Asking Questions

探索阶段



ZOOM - Asking Questions

探索阶段



确定访谈计划，分别进行用户访谈

访谈目标：了解疫情对学生学习的影响

访谈对象：20名KTH学生

访谈提纲问题：

【需求】作为学生，疫情时遇到哪些问题？

【行为】哪些学习应用是你疫情特殊时期最常用的？

【需求】你觉得这些应用用起来怎么样？

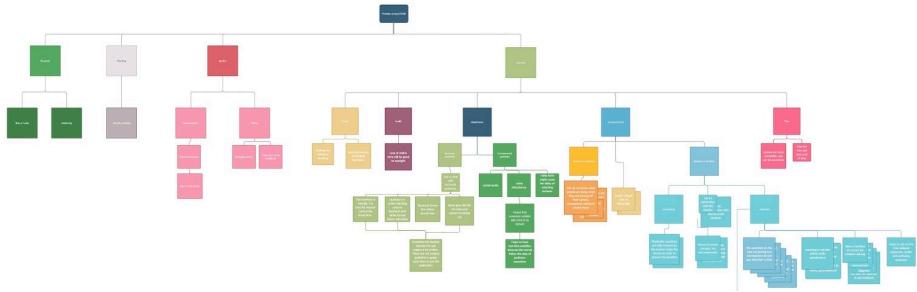
【愿景】你觉得哪些功能可以改进？

【背景】专业、年龄

访谈结果：https://docs.google.com/presentation/d/1A3i8qQXW_U5LMGD1-bDz9VYTMi82GmgtEByRWNiXPrE/edit?usp=sharing

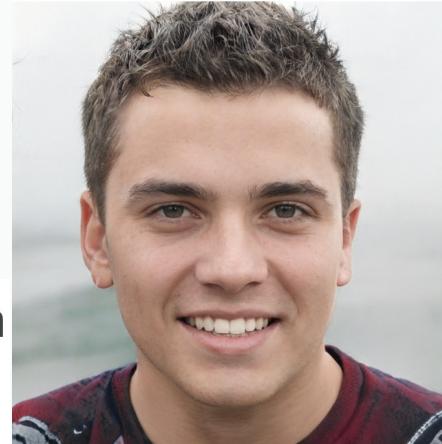
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定义阶段



Data analysis(contextual inquiry)—Nine dimension

Actors	Student A	Student B	Student C
Space	Own dorm	Own dorm	Library
Activities	Taking lecture	Reading course book Taking lecture	Taking lecture
Relevant objects	Laptop, iPad, breakfast bowl	Laptop, fika cup, ipad	Laptop, phone, a pile of text books
Actions	Turned on iPad to watch lectures. Took a nap. Woke up from nap and enter Zoom room. Listened to lectures carefully. Asked questions. Raise hands. Waited and left the lecture after finished.	Turned on iPad to read and take notes Turned on laptop to take class Waited for the professor to adjust the sound. Had fika. Entered breakout room. Keeper silent. Left the lecture halfway.	Turned on laptop and open zoom. Saw interesting posts from his friends on Facebook. Replied to some messages from girlfriend. Entered zoom. Send a question in the chat box.
Particular occasions	A lot of students were asking questions at the same time.	Only one guy in the breakout room	Professor forgot to check the chat window.
Sequence of events	1.Took a nap during watching video recordings. 2.Missed the conferencing lecture for half an hour. 3.Questions and raise hand neglected by professor.	1.Sound problem occurred 2.She had fika 3.Time to group discuss 4.Have no idea and keep silent 5.She left the room	1.Distracted from Social Media 2.Was late for lecture for 15minutes. 3.Felt could not keep up with the class.
Goals	Ask questions and answered by the professor to clarify uncertain points.	Discussing with others in group more efficiently and indeed learn something	Ask questions to keep up with the class.
Feeling	Confused, time-wasting,neglected	Ineffective, time-wasting	Disappointed , Afraid to ask questions



Alex

Age: 23
Male
Location: KTH campus

Background:

- EECS student

Goals:

- To ask questions easier online and not to miss important information

Frustration:

- His questions on the chat window are ignored by other students and lecturer
- A lot of similar and confusing questions are raised and he feels submerged
- Chat messages are mixed with questions

Pain points:

- He wants to understand the confusing part and get the teacher's answers clearly
- He does not want the questions be disturbed by chats

亲和图、九维表格整理访谈结果，输出典型用户画像

根据提及频次优先级，得出设计方向：改进提问功能

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概念产出

得出设计挑战：

我们如何改进zoom提问功能，让用户更有序地看到发送的消息，因而他们可以

- 区分聊天和问题
- 注意到所有问题
- 减少重复的问题

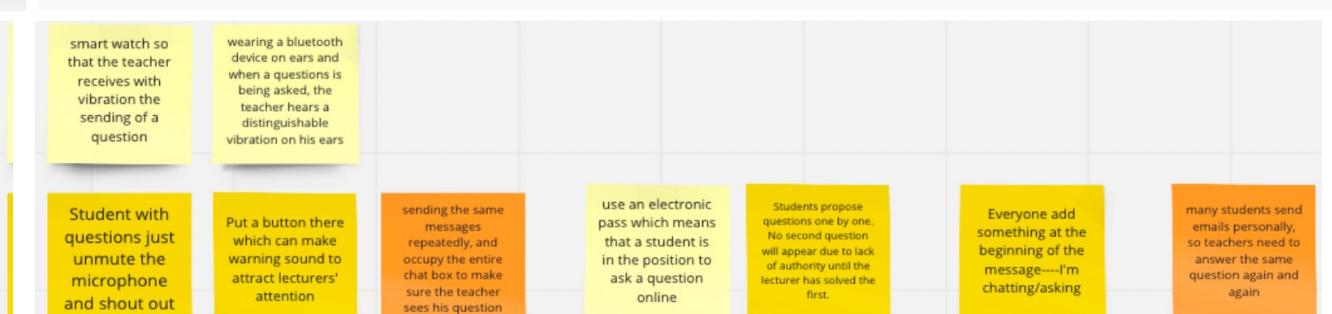
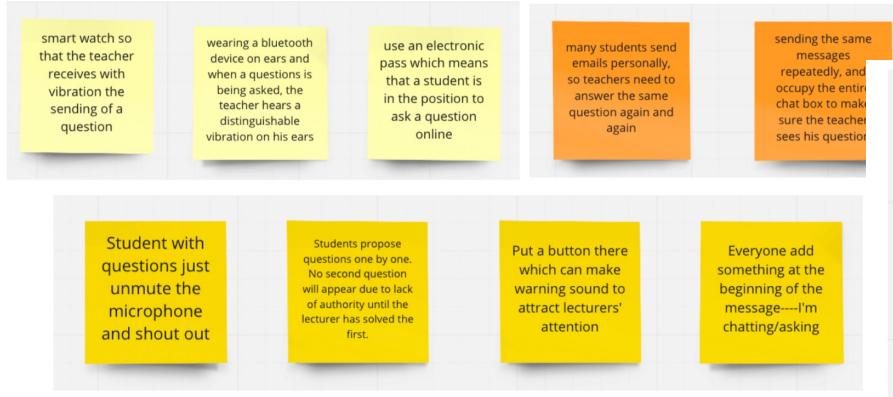
The 5 whys

Whys	answers
Why is the question asking function online ineffective now?	Students are confused with the logical flow of the course.
Why do students confused with the logical flow of the courses?	Teachers could neglect some questions on the chat box, without answering them in time. The students could hold their questions in the rest of the class and cannot concentrate on it. Users cannot review the chat history after class.
Why do teachers neglect the questions?	The chat window is full of various kinds of info, mixed with chat messages and questions. And the notification of new messages is not evident enough to catch attention.
Why is the chat window a chaos?	Everyone can send their messages on the chat box, and there is no difference between different types messages.
Why there's no difference between different type of messages?	The users only have one function can communicate with each others, so all text information and files will be send on it.

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概念产出

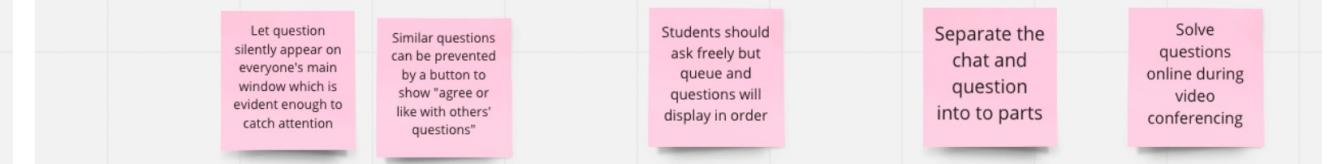
Worst possible ideas



Why they are bad?



Change them into good ones



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概念产出

Solutions from bodystorming



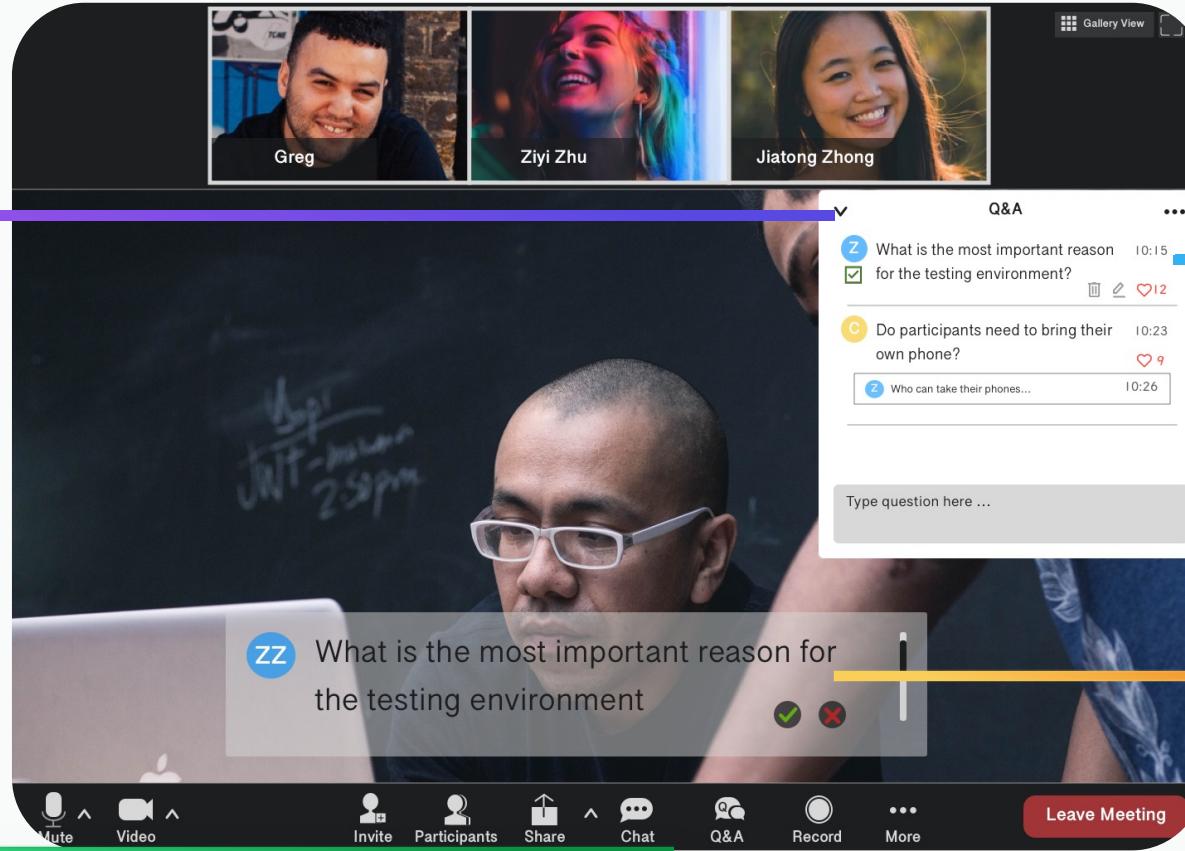
teacher	student	teacher	student
speaking	listening		
see the question appear on the screen	have question		
wait to finish his topic and answer	send in the question box and appear on everyone's screen		
Teachers start to answer questions in order	queue and wait for own question to be answered	The teacher click the question to answer and then automatically start speech recording	student can confirm if the question is covered
If the student did not noticed a teacher only will have the option to waive a question if he thinks that is similar to a previous one	If the student noticed a teacher can combine them as a united question		class is over
	a student is gonna have the option down on the app to cancel his question and it is deleted automatically		history window above which enable a student to select questions to download with the speech recording

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方案呈现

最小化提问窗口

为避免提问窗口遮挡视线，提问窗口可以被最小化



区分聊天和问题

聊天框和问题框被分开，学生提问可以被老师给予更多关注

提问框

提问单独作为一个对话框，问题按照时间顺序进行显示，相同的问题老师和提问者都可以进行合并联系、点赞，主持人、发送者鼠标移入可以删除修改重复的提问

当前回答中

该部分展示了老师当前正在回答的问题，主持人选中即为开始回答，可出现在参会者屏幕并自动录制（可关闭），学生可以对老师的回答做出反馈

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方案呈现

选择有帮助的提问导出

The image displays three side-by-side screenshots of the Zoom Q&A interface, illustrating the process of exporting recorded questions and their answers.

- Screenshot 1:** Shows the standard Q&A screen with three questions listed:
 - Q: What is the most important reason for the testing environment? (10:15)
 - C: Do participants need to bring their own phone? (10:23)
 - Q: Who can take their phones... (10:26)A "Type question here ..." input field is at the bottom.
- Screenshot 2:** Shows the Q&A screen with the "Export" button highlighted. The same three questions are listed, with the second question (C) now having a green checkmark next to it, indicating it has been selected for export.
- Screenshot 3:** Shows the export confirmation dialog. It lists the selected question (C) and its timestamp (10:23). Below the list is a video thumbnail showing two people. A "Transtext" button is visible, and at the bottom are "Cancel" and "Export" buttons.

导出页包含录制的视频片段，可转成文字

THANK YOU