

Educational Innovation: CloudClassRoom(CCR) Tournament

1. CCR-Contest:

- Date & Time:
February 11, 2022 at 11:55am-12:00pm (Taiwan Time)
- Rules:
Contestants must login to the CCR system (ccr.tw) as “students” using their own email addresses. Any repeated entry under the same email address will be disqualified for the contest.
- Prize:
 - 1st Prize: \$200 USD
 - 2nd Prize: \$150 USD
 - 3rd Prize: \$100 USD
- Instruction:
 - The contest will be carried out using CCR-GEARS (Gamified Electronic Audience Response System). Please refer to the article on page 3.
 - A total of 10 questions will be asked and each question allows 30 seconds to answer.
 - The top 3 winners who get the most correct answers in the shortest time will receive the prize.
 - In the event of a tie for the winners, the cash prize will be equally shared.
- Topics:

ECEI-related questions

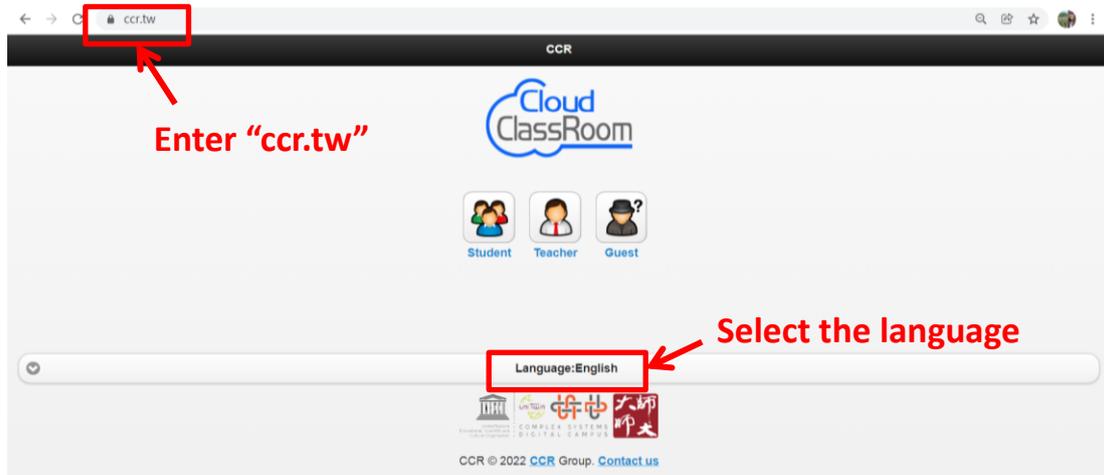
2. CCR-Research Award:

- IEEE ECEI 2023 will issue a special award in CCR-research to promote the use of CCR and stimulate research conducted in related areas.
- Prize:
 - 1st Prize: \$300 USD
 - 2nd Prize: \$250 USD
 - 3rd Prize: \$200 USD
- Details: To Be Announced.

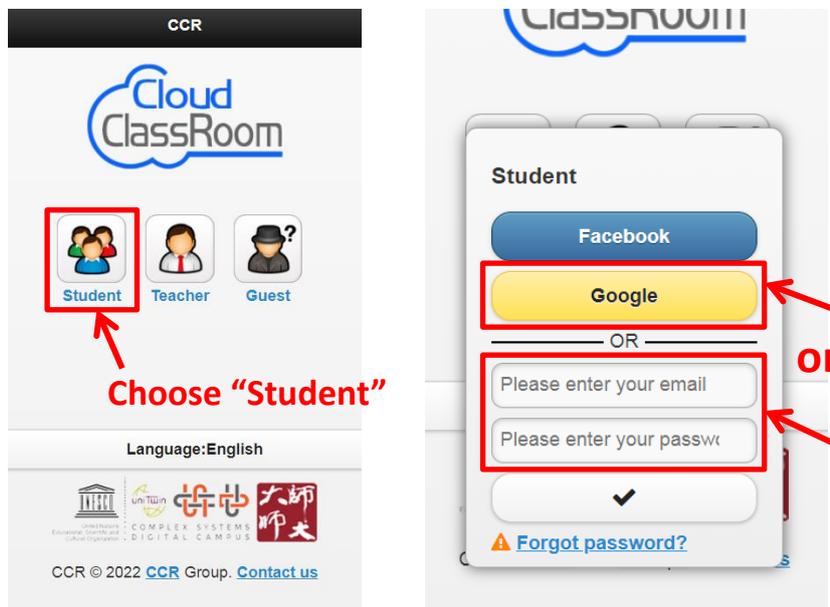
How to Join the Tournament?

CloudClassRoom (CCR) — Student side

Step.1 : Enter “**ccr.tw**”, and select the language.



Step.2 : Log in as “**Student**”, and use **google account** or enter the “**email and password**” to be registered.



Step.3 : Enter the room number: “**99**”.



Step.4 : Start answering!



How Mobile Learning Can Support Global Student Engagement

Authors:

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National Taiwan Normal University's device-agnostic in-class engagement tool was featured as a mobile learning exemplar project in the *EDUCAUSE Horizon Report: 2019 Higher Education Edition*.



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Given the prevalence of smartphones and mobile devices and access to high-speed internet, more K-12 schools are embracing a bring-your-own device (BYOD) policy to make learning more engaging, enjoyable, and effective. In keeping with this trend, a proliferation of edtech offerings have been developed to transform smartphones into powerful interactive tools for classroom learning. My team at National Taiwan Normal University (NTNU) developed one such tool, [CloudClassRoom](#) (CCR), which was featured as a mobile learning exemplar project in the *EDUCAUSE Horizon Report: 2019 Higher Education Edition*.¹

To date, approximately 50,000 teachers and students have registered on CCR, and more than 500,000 classroom activities have been conducted using the technology. The NTNU team designed it to work on every internet-capable device without the need to install software or a plug-in. CCR operates on multiple computing platforms, including Microsoft Windows, Mac OS, iOS, and Android. Once teachers connect their devices, they can easily initiate anonymous quizzes. In addition to the traditional forced-choice answer format, CCR allows students to respond both visually, with short texts, pictures, or emoticons, and verbally. Students' answers are automatically aggregated and analyzed in real time so that teachers have current snapshots of their classes' learning progress.

Incorporating Cultural Context to Encourage Participation

Especially within classrooms in East Asia, where students are customarily silent and reluctant to express their ideas, CCR appears to be a promising tool for increasing interactivity. I am currently leading an international project to investigate the impact of CCR on classroom learning in Taiwan, Thailand, Vietnam, and other Asian countries. In these high-context, predominantly collectivist cultures, students are typically more sensitive about openly disagreeing with others, and decisions are frequently made collaboratively in group settings.

The NTNU CCR team expects that the outcomes of incorporating CCR into classrooms in this region will further inform researchers, teachers, and policymakers regarding how to better leverage the potential of mobile technology in ways that positively impact learning and teaching.

The use of CCR can make conventional classroom teaching easier, but its newly developed gamified electronic audience response system (GEARS) has the potential to make the classroom teaching and learning experience more enjoyable.

GEARS provides teachers with an additional way to post questions to the class, and it gives students an exciting way to respond. With GEARS, teachers can preset the following settings:

1. Shortening or lengthening the permitted response time
2. Providing rewards for students' correct answers
3. Selecting available props to be used in student answers
4. Instant display of student scores and rankings

We have found that incorporating these settings can transform regular questions and answers into contests. A future version of GEARS will allow students to be placed into groups to allow for small group competitions.

GEARS includes the following "game props," each of which grants students a special power:

- **Time extension:** Students can extend the time allotted to provide answers.
- **Answer deletion:** Students can delete one of the answer options in a multiple-choice question.
- **Answer distribution:** Students can access an overview of the answer distribution for the whole class.
- **Designation:** Students can opt to view a particular classmate's answer.

Students earn rewards when they provide correct answers in GEARS. When students accumulate enough rewards, students can redeem the rewards for game props. For example, if students need to provide answers in a 30-second timeframe, they can use their accumulated rewards to redeem a time extension game prop and extend their allotted response time to 60 seconds, thus increasing their chances of answering correctly. Allowing props to be redeemed only through rewards motivates students to respond to questions and increases student engagement with the class. Through the use of props, students may thus increase their chances of having the correct answers. Many teachers offer student contest champions the opportunity to share a few remarks or words of encouragement to the rest of the class. The NTNU CCR team is currently planning to incorporate attacking or defending props to heighten the competitive angle and make the gaming aspect more fun.

With each iteration of this technology, the NTNU CCR team is working to make CCR a more interesting, convenient, and efficient platform to facilitate classroom teaching and learning. The use of CCR is anticipated to lead to more ideas, enhanced classroom interactions, and closer student-teacher relationships.

For more insights about advancing teaching and learning through IT innovation, please visit the *EDUCAUSE Review* [Transforming Higher Ed](#) blog as well as the [EDUCAUSE Learning Initiative](#) page.

Note

1. Bryan Alexander, Kevin Ashford-Rowe, Noreen Barajas-Murphy, Gregory Dobbin, Jessica Knott, Mark McCormack, Jeffery Pomerantz, Ryan Seilhamer, and Nicole Weber, *EDUCAUSE Horizon Report: 2019 Higher Education Edition* (Louisville, CO: EDUCAUSE, 2019).

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