

2301350

Video Conferencing Technology

USER INTERFACE DESIGN



Member

- | | |
|------------------------|------------|
| 1. ธนาวน อากาจรัส | 6033627723 |
| 2. พิรพล อยู่ไฟศาล | 6033643723 |
| 3. ดำรงค์ ตงศ์ศรี | 6033623123 |
| 4. ศิรป์วนิ กันยาพรกุล | 6033662623 |
| 5. วรนันท์ จันทะรี | 6033654623 |
| 6. วุฒิภัทร คำนวนสินธุ | 6033657523 |
| 7. ณัฐพล พาสุขกรรม | 6033621923 |

Blackboard collaborate™



Overview



Semantic Analyzers and Type Checking

Jidapa Dilokpaphaphat joined the session

Attribute Grammar for Declarations

Grammar Rule	Semantic Rule
dec → type varList	varList.dtype = type.dtype
type → int	type.dtype = int
type → float	type.dtype = real
varList ₁ → id , varList ₂	id.dtype = varList ₁ .dtype varList ₂ .dtype = varList ₁ .dtype
varList → id	id.dtype = varList.dtype

```

graph TD
    dec --- type
    type --- float
    type --- id1["id , varList"]
    type --- id2["id"]
    id1 --- id1
    id1 --- id2
    id1 --- varList
    varList --- id3["id"]
    id3 --- id3
    
```

6.semAna_txt.pdf (12/35)

Ananya Pras...

Design Thinking 2301350.pdf - Adobe Acrobat Reader DC

You are viewing Nagul C's screen

Everyone

- Jaruloj Chongstitvattana 08:02 Hello
- Phattharaphon Khammun 08:02 សេរីតិកប៊ា
- Damrong Tongsiri 08:02 😊
- Woranon Chantaree 08:02 😊
- Napat Pipatrojanakamol 08:02 គោរព
- Neo Seebunrueng 08:03 សេរីតិកទោរាជន៍
- Jaruloj Chongstitvattana 08:03 Reconnect

Damrong Tongsiri is typing...

Say something! 😊

Unmute Start Video

Participants: 32 Share Screen Chat Record Reactions

How might we ?

- ▶ ប្រាស់គឺខ្សោយកូកខ្លួនដំរាបីដើម្បី តែងការ ផ្តល់ការងារនៃការប្រើប្រាស់បច្ចាស់បាយការណ៍ប្រចាំថ្ងៃ
- ▶ ពេរវា ប្រាស់យុទ្ធមូលដែនទីទៅខេះអីដែនជាតម្លៃយុទ្ធមូលដែនទីទៅខេះប្រចាំថ្ងៃ
- ▶ ត្រូវបានដោះស្រាយការងារនៃការប្រើប្រាស់បច្ចាស់បាយការណ៍ប្រចាំថ្ងៃ
- ▶ ត្រូវបានដោះស្រាយការងារនៃការប្រើប្រាស់បច្ចាស់បាយការណ៍ប្រចាំថ្ងៃ
- ▶ ត្រូវបានដោះស្រាយការងារនៃការប្រើប្រាស់បច្ចាស់បាយការណ៍ប្រចាំថ្ងៃ

Thanawin Arph...

Nagul C

Damrong Tongsiri

warattaya lertw...

Pranwas Srianan

Leave Meeting

Blackboard Collaborate Classroom Session

Zoom Meeting Session

Screen View



The screenshot shows a presentation slide titled "Attribute Grammar for Declarations". It contains a table comparing "Grammar Rule" and "Semantic Rule" for declarations. Below the table is a parse tree diagram for the declaration "dec → type varList". The tree shows "dec" branching into "type" and "varList". "type" further branches into "float". "varList" branches into "id" and "varList". Both "id" and the second "varList" branch into "dtype=real". A red circle highlights the "View Options" icon in the top right corner of the slide.



View Controls

- Hide/Show Controls
- Zoom In
- Zoom Out
- Best Fit
- 1:1 (True Scale)

The screenshot shows a Zoom meeting interface where a user is viewing another participant's screen. The slide title is "A quick intro to User Experience". A red arrow points from the "View Options" button in the top right corner to a dropdown menu. The menu includes "Zoom Ratio", "Request Remote Control", "Annotate", "Exit Full Screen", and "Side-by-side mode".

- Video view is adjustable using view options on the top of screen
- A drop down view menu is shown with its description

Audio & Video



Click on the lower-right button to use the sidebar and select option icon

The screenshot shows the Blackboard Collaborate interface. At the top, there's a navigation bar with icons for messaging, users, and settings. Below it is a search bar with placeholder text "Say something" and an emoji dropdown. On the right side, there are three small circular icons. A red arrow points from the text "Click on the lower-right button to use the sidebar and select option icon" to the third icon, which is a gear symbol representing settings. The main area is titled "My Settings" and shows "Damrong Tongsiri". It has two sections: "Audio and Video Settings" (with options like "Set up your camera and microphone", "Speaker Volume" at 100%, and "Display Closed Captions"), and "Notification Settings" (with "Report an issue").

Then you can configure:

- Speaker volume
- Camera
- Microphone volume

The screenshot shows the Zoom interface during a video call. The main video feed on the left shows a participant named "Zetadin" with the caption "Zetadin raised hand". The main video feed on the right shows a participant named "Nattaphon Phas..." with the caption "Naratip Kawsaard". A yellow box highlights the video feed of "Naratip Kawsaard". At the bottom of the screen, a dark overlay displays "Select a Microphone" and "Select a Speaker" menus. The "Select a Microphone" menu lists "Microphone Array (Realtek(R) Audio)" (checked) and "Same as System". The "Select a Speaker" menu lists "Speakers (Realtek(R) Audio)" (checked) and "Same as System". Other options include "Test Speaker & Microphone...", "Switch to Phone Audio...", "Leave Computer Audio", and "Audio Settings...". To the right of these menus, there are "Select a Camera" and "Video Settings..." options, along with a "Choose Virtual Background" button.

Users can quickly set their audio and video configurations from the drop-down menu at the bottom left.

Participants



16 Attendees

Attendee	Role
Jittanan Jackthreemongkol	Moderator (1)
Jaruloj Chongstitvatana	Participants (14)
Anchabon Laothakunvanich	
Anunya Prasongkiat	
Damrong Tongsiri	
Kanokwan Chasuwarn	
Kantapat Chankasem	
Napat Pipatjanakanomol	
Neo Seebunrueng	
Phattharaphon Khammun	
Salisa Chuchuenprueksaphan	
Teerapon Pansaichau	
Thanawat Thanaponpaiboon	
Thanawinn Arphacharas	
Thotsaphon Chirojchaturon	
Woranon Chantaree	

Attendee window show numbers and name of attendees

Also, quality of their internet connection.

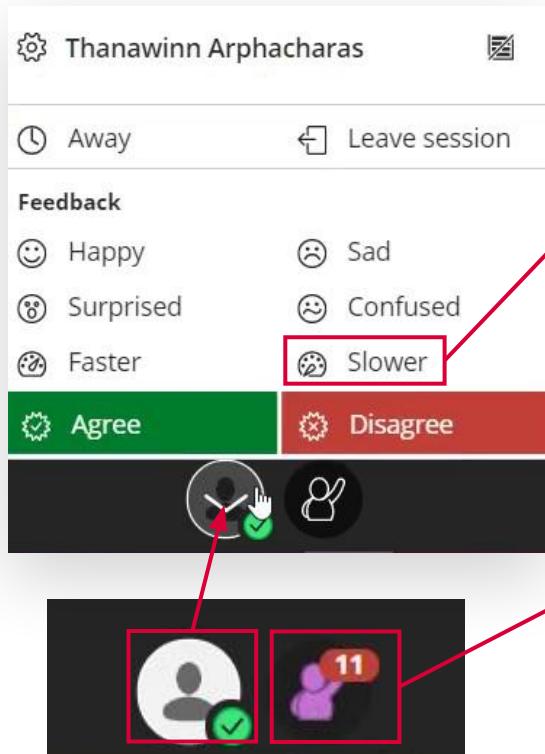
Participants (19)

Invite Participants Share Screen Chat Record Reactions

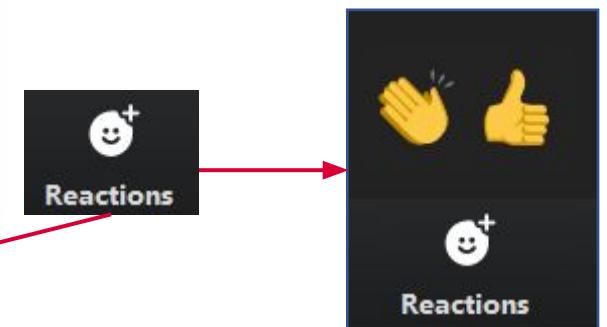
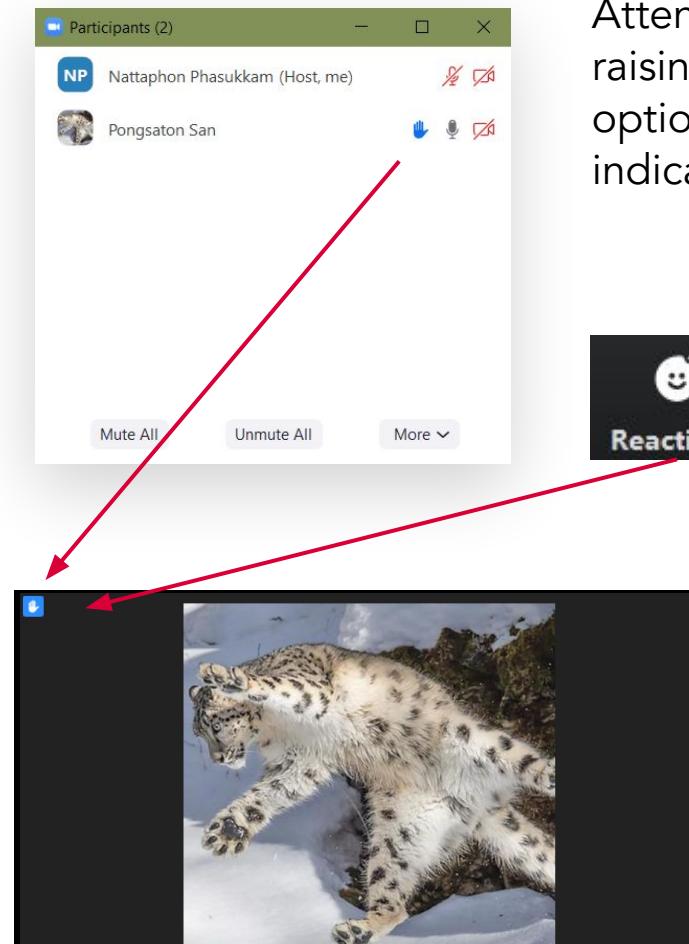
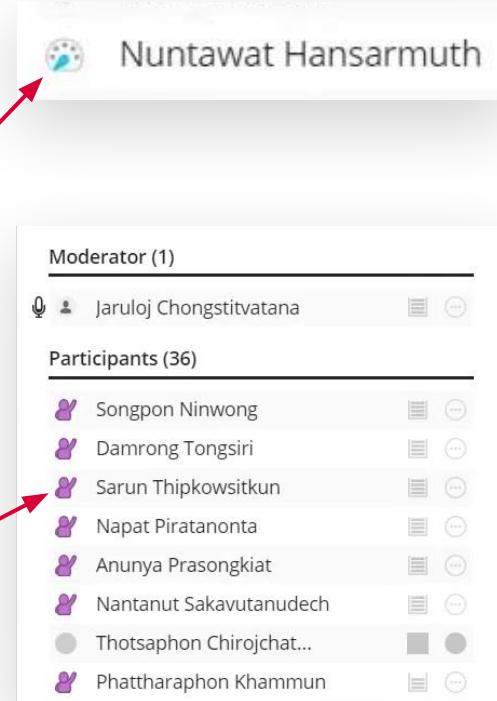
Participant icon show numbers of participants

Pop-up windows of participants show about numbers, name, status of camera and mic of participants and status of screen sharing on conversation

Feedback



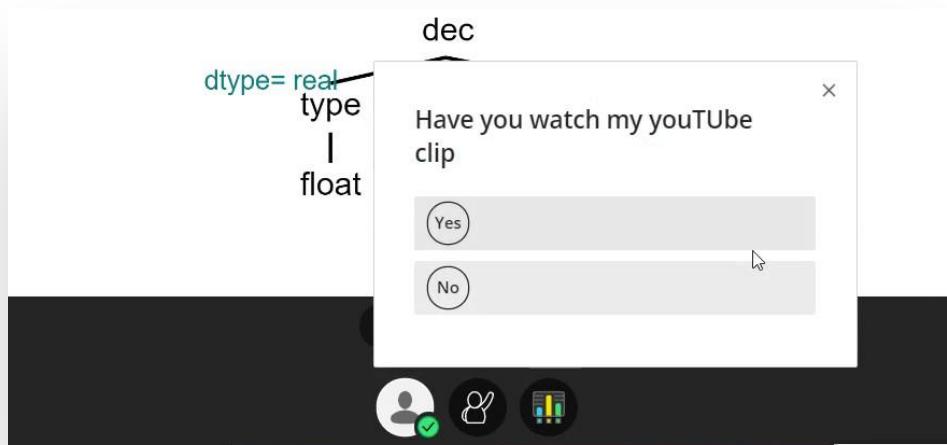
Attendee can express themselves by raising hand or clicking other feedback options



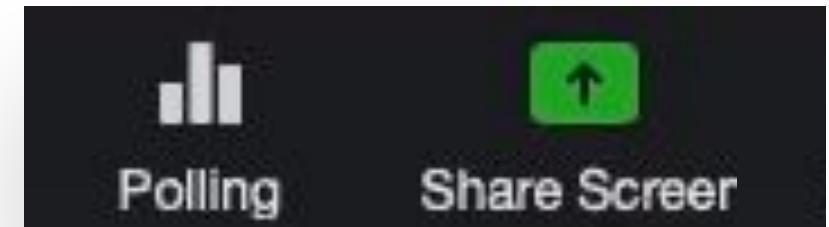
Attendee's can express by use raising hand or use reaction options but reaction is less indicator than Blackboard

Attendee's expression will show on top left of attendee's display

Collaboration



Moderator can create a poll to receive anonymous feedback (user can not see the result).



Everyone can participate in polling and can share their screen if host allowed.

Chat

The screenshot shows the Blackboard Collaborate interface. On the left, there's a search bar labeled "Find someone to chat with". Below it, a list of participants in a public chat: "Everyone" (with a dropdown arrow) and "ok គុប្បន្ន" (with a hand cursor icon). A red arrow points from the "ok គុប្បន្ន" entry to a private message window on the right. The private message window shows a message from "Damrong Tongsiri" at 09:37: "រាយការណ៍ នៅក្នុងកម្មសារ AI នេះ". The main chat area shows messages from "Damrong Tongsiri" and "Neo Seebunrueng" at 08:09. At the bottom are standard messaging controls: a text input field with a Thai emoji, a microphone icon, a group icon with "25", and other icons for file sharing and settings.

User can chat in public or in private by shifting to chat window

- Chat box supported both Thai, English and Emoji.
- Voice chat is also supported.

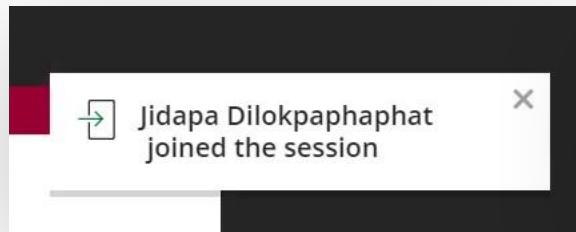
The screenshot shows the Zoom Group Chat interface. It displays a message from "Naratip Kawsaard" to the user: "(Privately)" at 08:09. The message content is partially visible as "...". Below the message, there's a "Type message here..." input field. A red arrow points from the "Type message here..." field to the "To:" dropdown menu on the right.

The screenshot shows the Zoom Group Chat interface with a dropdown menu open under the "To:" label. The menu includes "Everyone (in Meeting)", "645 ឈាមទីផ្សារបុរិយុទ្ធន័យ", "Naratip Kawsaard", and "Zetadin". Below the menu, the "To:" dropdown is set to "Everyone" and the "Type message" input field contains "Everyone".

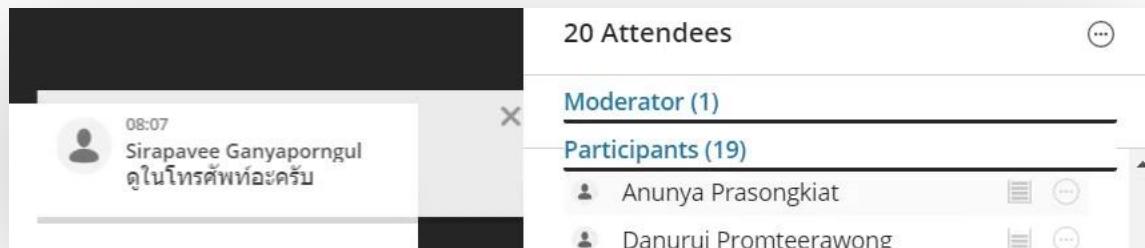
- User can chat in public or in private by select a person to chat in a drop down window.
- Chatbox supported Unicode chatting (Thai, English and Emoji also included)
- File Sharing in the Chat is also supported.



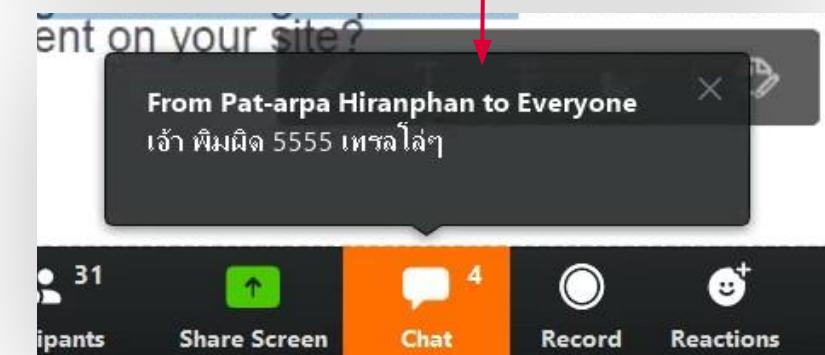
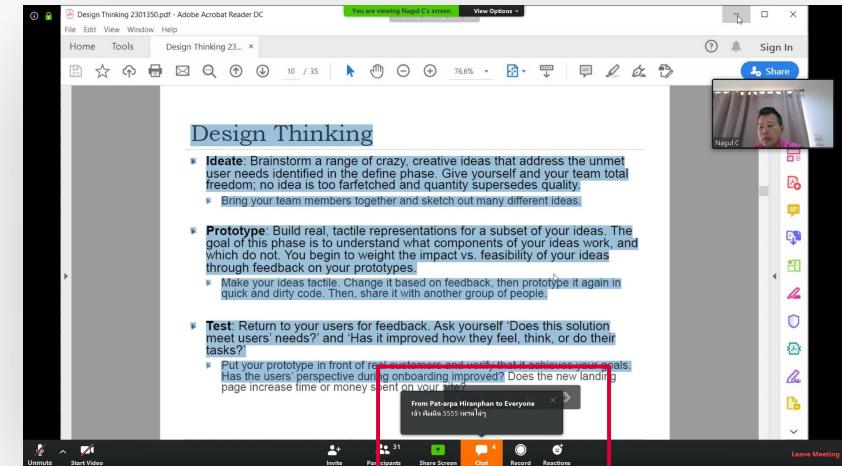
Notification



User will be notified when someone joined or left the class



And when user are not at chat window, chat will be notified.



Chat are notified above chat icon.

Recording



Moderator can record the session, including public chat, which can be watch later via Blackboard.

The image shows a Blackboard Collaborate interface. On the left, there's a slide titled "Order of Evaluation for Inherited Attributes" with some text and a diagram. A red arrow points from the top-left corner of this slide to a zoomed-in view of the "Everyone" public chat window on the right. The chat window has a red border around its title bar and a red arrow pointing to the "Recording messages in this chat." message.

Users in session can record live video for watch later into users device

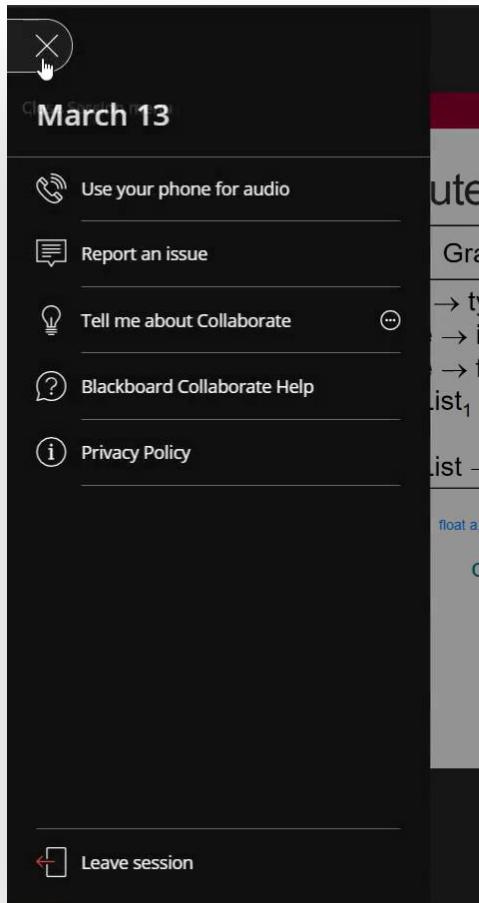
The image shows a Zoom meeting interface. At the top, there's a "Record" button with a red box around it. Below the video feed, there's a toolbar with a "Record" button (also with a red box) and other controls like "Unmute", "Start Video", "Manage Participants", "Share Screen", "Chat", and "End Meeting". At the bottom, there's a green bar with the ID "ID: 667-566-586" and a "Stop Share" button. Below the video feed, there's a "Convert Meeting Recording" progress bar at 62% completion with a "Stop Converting" button.

Recorded video was converted automatic after end of each meeting and Zoom will pop-up folder of recorded video for users after finish convert video

Menu



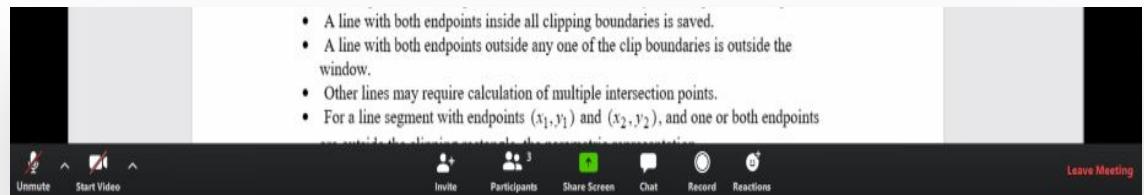
Sidebar menu is located at top left corner



From top to bottom:

- Session name
- Use phone for audio
- More info
- Help
- Privacy Policy
- Leave session

Menu bar is located at bottom of screen and default state of menu bar is hide itself from screen

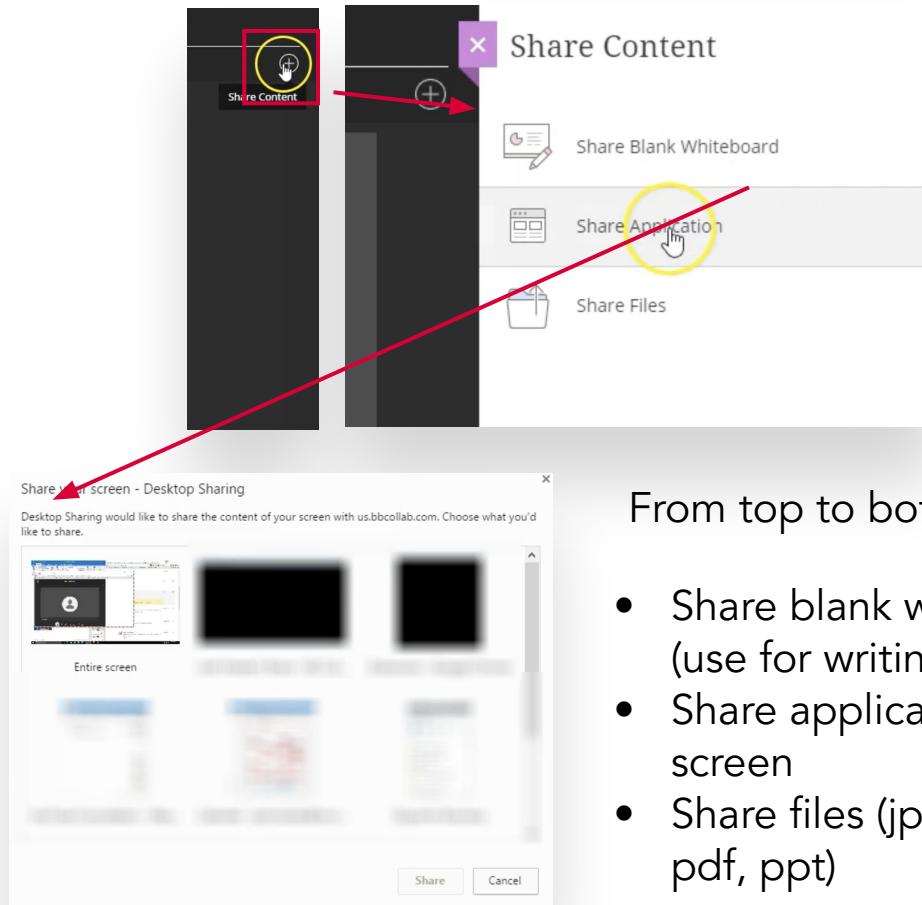


From left to right:

- Audio and video settings
- Invite users
- Participant
- Screen sharing
- Chat
- Record
- Reaction
- Leave session



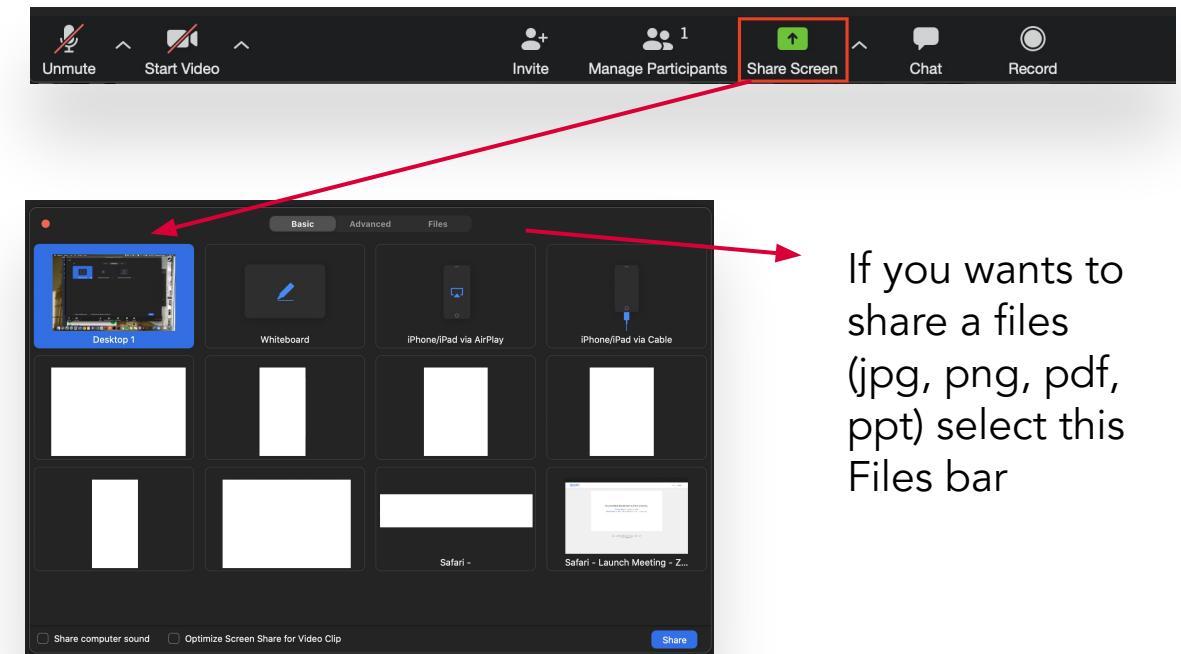
Screen Sharing



From top to bottom

- Share blank whiteboard (use for writing)
- Share application screen
- Share files (jpg, png, pdf, ppt)

Select share application then select the application screen that you want to share



Select a screen which you wants to share

If you wants to share a files (jpg, png, pdf, ppt) select this Files bar

File Sharing



Share Content

Primary Content

Share Files
Sharing 6_semAna_txt.pdf

A screenshot of the Blackboard Collaborate interface. On the left, there's a sidebar with 'Share Content' and 'Primary Content'. Under 'Primary Content', there's a 'Share Files' section with a PDF file named 'Sharing 6_semAna_txt.pdf'. At the bottom of the sidebar, there are several icons: a speech bubble, a user icon with '36', a refresh icon (highlighted with a red box), a gear, and a close button.

Share Files

Add Files Here

Drag Images, PowerPoint, or PDF files here, or click to add

A screenshot of the 'Share Files' interface. It shows a large dashed box labeled 'Add Files Here' with the sub-instruction 'Drag Images, PowerPoint, or PDF files here, or click to add'. There's also a small red arrow pointing towards the 'Add Files Here' area.

- Drag and drop image, ppt or pdf file from local device
- Showing what moderator are sharing on screen
- Participant can download showing document from Share tab

You are viewing Meen Warat's screen

View Options ▾

Zoom Group Chat

From Me to Everyone:

pythonTokensAndItsRegularExpression.pdf 66.28 KB

File (pythonTokensAndItsRegularExpression.pdf) sent successfully.

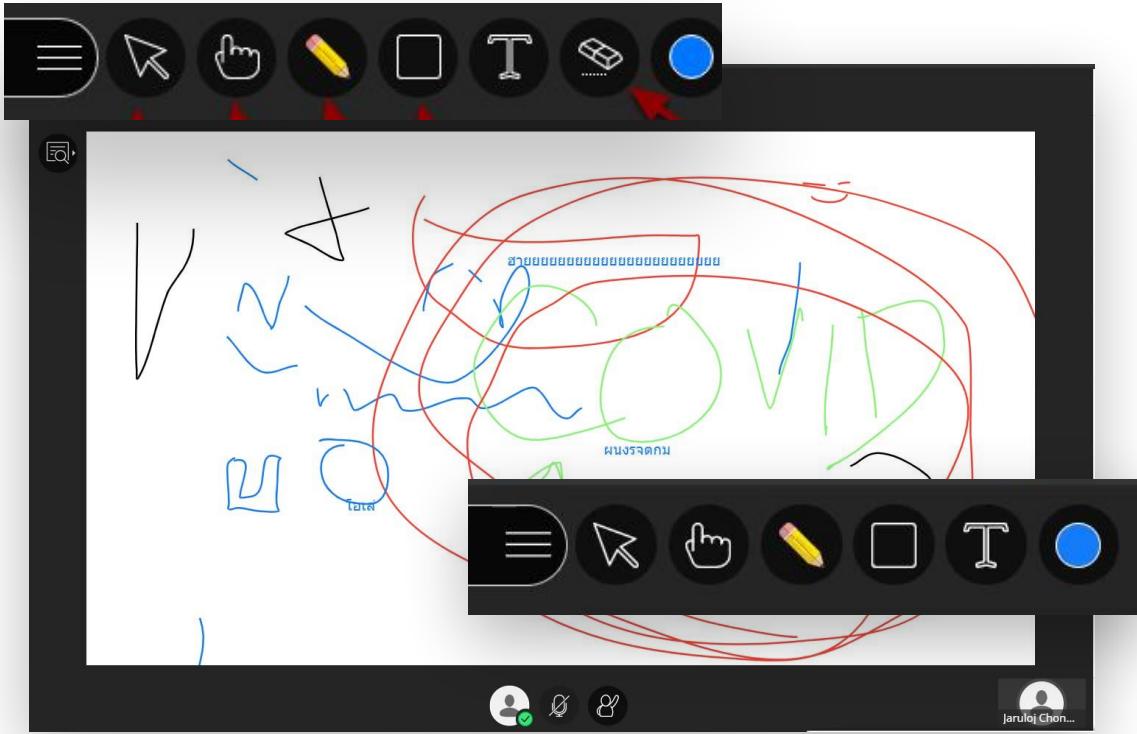
To: Everyone Type message here...

Dropbox Microsoft OneDrive Google Drive Box Your Computer

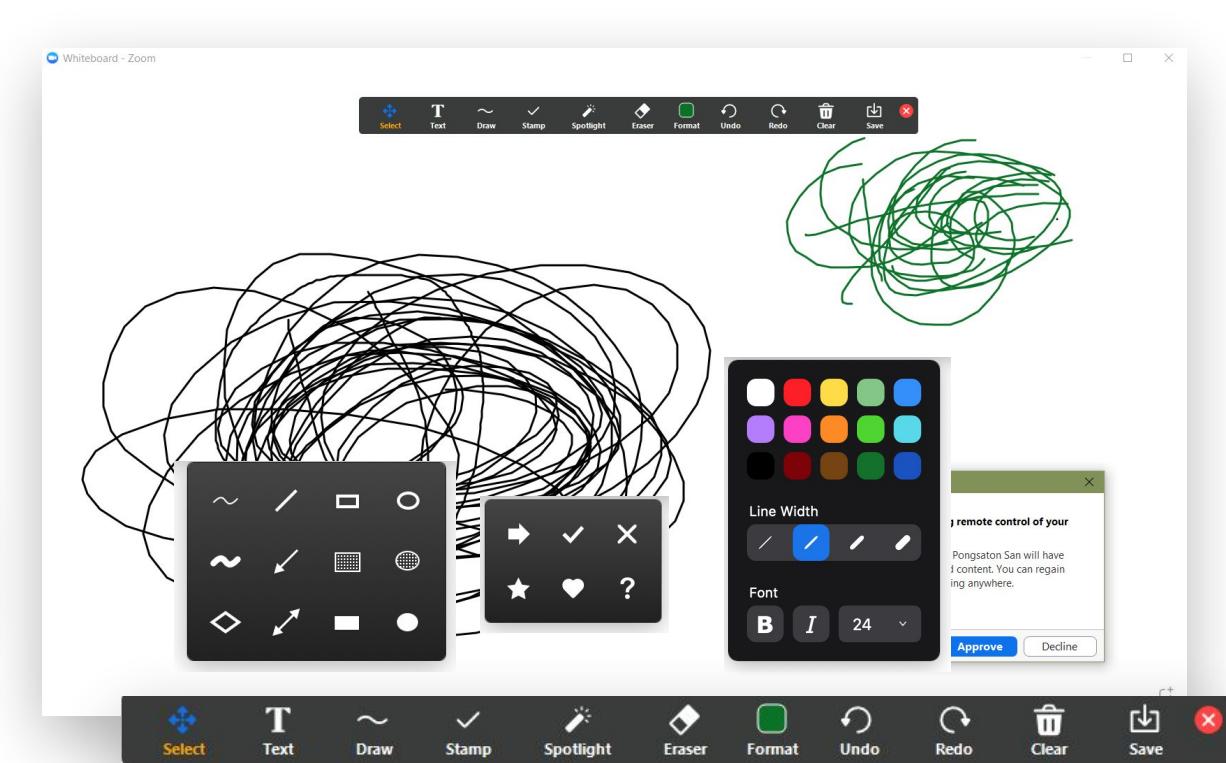
A screenshot of the Zoom Group Chat interface. It shows a message from the user 'Meen Warat' stating 'You are viewing Meen Warat's screen' and 'View Options'. Below this, it says 'From Me to Everyone:' and shows a file named 'pythonTokensAndItsRegularExpression.pdf' (66.28 KB) with a checkmark. A message below says 'File (pythonTokensAndItsRegularExpression.pdf) sent successfully.' A dropdown menu is open under 'To:', with 'Everyone' selected. Other options in the dropdown include 'Dropbox', 'Microsoft OneDrive', 'Google Drive', 'Box', and 'Your Computer'. A red box highlights the 'Everyone' dropdown option.

- Files and documents can be shared into chat
- Upload files from Dropbox, OneDrive, Google Drive, Box and Local device in any format
- Uploader can control the visibility of the file (to everyone, or specific person)

Whiteboard



Moderator can allow all user to write, type or draw on session's blank whiteboard simultaneously



Moderator can allow all user to write, type or draw on session's shared application screen or blank whiteboard simultaneously

Key Feature



The screenshot shows the Blackboard Chula login interface. At the top, there's a banner with "WELCOME TO Chula CHULALONGKORN UNIVERSITY". Below it, there's a large image of the university's campus. The main area has two sections: "LOG IN TO BLACKBOARD" with fields for "Username" (60336277) and "Password", and a "SYSTEM ANNOUNCEMENT" box containing a notice about the application form for creating courses in Blackboard. To the right, there's a "FORMS" section with four items: "Application Form for Create Course for Blackboard (For Instructor)", "Create Course for Blackboard Ultra form (For Instructor)", "Service Support Form or Report a Problem Blackboard & Echo 360", and "Echo Active Learning Platform (ALP) สำหรับอาจารย์". A "Sign In" button is at the bottom.

Integration: Account connected to Blackboard Chula, which mean you can not change your name. Therefore, attendees can be easy to identified and graded.



Virtual background: User can select still or moving image as their background
(working fine even without green screen*)

*depends on your webcam quality and light situation



Summary



The screenshot shows the Zoom website's "Meeting Plans" section. It highlights four main plans: Basic, Pro, Business, and Enterprise. Each plan includes a price, a "Buy Now" button, and a detailed feature list.

Plan	Price	Participants	Meetings	Storage	Support	Features
Basic	Free	Up to 100 participants	Unlimited 1 to 1 meetings	40 mins limit on group meetings	Online support	Video Conferencing Features, Web Conferencing Features, Group Collaboration Features, Security
Pro	\$14.99/mo/host	100 participants	300 participants	24 hrs	Dedicated phone support	All Basic features + Includes 100 participants, Need more participants?, Meeting duration limit is 24 hrs, User management, Admin feature controls, Reporting, Custom Personal Meeting ID, Assign scheduler, 1GB of MP4 or M4A cloud recording, REST API, Skype for Business (Lync) interoperability, Optional Add-on Plans
Business	\$19.99/mo/host	Small & Med Businesses	Large Businesses	Unlimited	Admin dashboard, Vanity URL, Option for on-premise deployment, Managed domains, Single sign-on, Company branding, Custom emails, LTI integration, Cloud Recording Transcripts, Optional Add-on Plans	All Pro features + Includes 300 participants, Need more participants?, Dedicated phone support, Admin dashboard, Vanity URL, Option for on-premise deployment, Managed domains, Single sign-on, Company branding, Custom emails, LTI integration, Cloud Recording Transcripts, Optional Add-on Plans
Enterprise	\$19.99/mo/host	Starting at 100 hosts	Large Enterprise-Ready	Unlimited	Dedicated Customer Success Manager, Executive Business Reviews, Bundle discounts on Webinars and Zoom Rooms	All Business features + Enterprise includes 500 participants, Enterprise Plus includes 1,000 participants, Unlimited Cloud Storage, Dedicated Customer Success Manager, Executive Business Reviews, Bundle discounts on Webinars and Zoom Rooms

Pros:

- Completely free for Chulalongkorn University student and teacher.
- Attendees are easy to identified.
- Attendees are easy to graded.

Cons:

- User must have Chula account to use this service.

Pros:

- Virtual background.
- Everyone can access for free.
- Available across multiple platforms.

Cons:

- Can't host meeting longer than 40 minutes in free version.

Thank You.

