

# Collaboration and co-creation with ICT

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Center for the use of ICT  
in pedagogical process

# What is collaborative learning?

- Collaborative learning is an **educational approach** to teaching and learning that involves groups of students working **together** to **solve a problem, complete a task, or create a product**.
- According to Gerlach, "Collaborative learning is based on the idea that learning is a naturally **social act** in which the participants talk among themselves (Gerlach, 1994). It is through the talk that learning occurs."

# Educational value of collaborative learning

Join me on Padlet:

[https://padlet.com/sanja\\_jedrinovic3/collaborative\\_learning](https://padlet.com/sanja_jedrinovic3/collaborative_learning)



# Why to use collaborative learning?

The benefits of collaborative learning include:

- Development of **higher-level thinking** skills, oral **communication**, **self-management**, and **leadership skills**.
- Promotion of student-faculty **interaction**.
- Increase in student **retention**, **self-esteem**, and **responsibility**.
- Exposure to and an increase in **understanding of diverse perspectives**.
- Preparation for **real life** social and employment **situations**.

# Collaborative learning with ICT

Information and Communication Technologies (ICT) could support collaborative learning in three main ways:

1. As an **interpersonal communication tool** to support collaborative learning strategies that are used in face-to-face settings;
2. **computer-supported collaborative work** where the learners work on a common document/product; and
3. **computer-supported collaborative learning** where the focus is to support negotiation of meaning among a group of learners

## ICT to support interpersonal communication

- Enables many-to-many **interaction**
- Gives more students opportunities to **participate** in the discussion
- Allows the learners **to review and reflect** on their past discussion
- It is possible to implement several collaborative learning strategies that were designed for face-to-face settings (Student Teams-Achievement Divisions, Teams-Games-Tournaments, Jigsaw I and Jigsaw II, Team Accelerated Instruction, Cooperative Integrated Reading and Composition, Group Investigation and Learning Together)
- **The flipside: the students cannot rely on non-verbal cues in their communication**

# Examples of ICT (IPC)

- synchronous tools like chats, short messages, and video conferencing
- asynchronous tools like email and discussion boards.

**NEARPOD**

Buttons: Add Content, Add Web content, Add Activity, Open ended question, Poll, Quiz, Draw It, Collaborate!

**PADLET, TRELLO**

Discussion topic: How do people acclimate in a new culture/society after relocating?

Content includes: Videos I'd like to share, Questions I have, Comments I have, Articles to share, Photos to share.

**MOODLE CHAT**

Chat messages:  
14:33 Brian Franklin: Mary said to Brian Franklin: yes -they are for individual use only.  
14:34 Mary Cooch: Brian said to Mary Cooch: I am testing the compact theme 😊  
14:35 Brian Franklin: Mary said to Brian Franklin: I am

**MOODLE BIG BLUE BUTTON, ZOOM, MS TEAMS, WEBEX**

**MOODLE FORUM**

Course discussion

In this space we'll discuss aspects of the course. Feel free to add new discussions and contribute if you think you have something of value to say!

Add a new discussion topic

Discussion	Started by	Replies	Last post
Comparing and Contrasting	Heather Reyes	11	Tue, 7 Oct 2014, 4:...
Background music - good examples	Jeffrey Sanders	0	Tue, 7 Oct 2014, 4:...

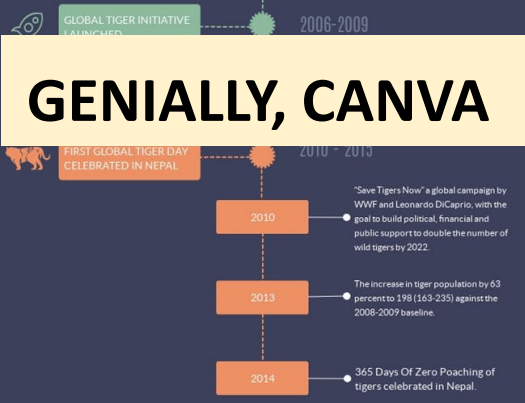
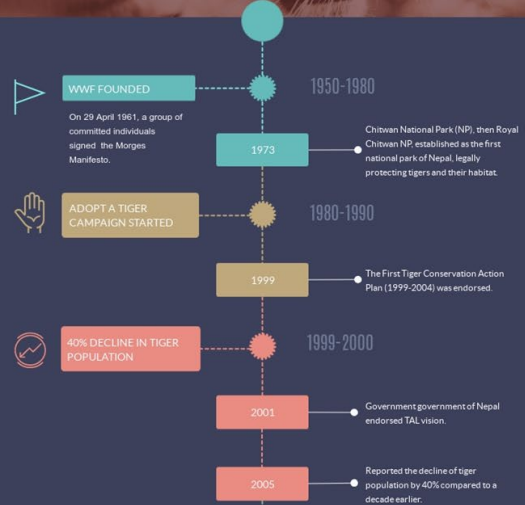
Not subscribed. Click here to subscribe.

# Computer-Supported Collaborative work (CSCW)

- Shared workspace or groupware
- Students work on a common document/product mediated by ICT
- There is a concrete product at the end of the collaborative session
- The technology plays the role of
  - capturing the information,
  - tracking the development of the collaborative work, and
  - displaying the work in progress.



# Examples of ICT (CSCW)



A wiki for use by everyone to record reflections, further reading, ask questions, resolve issues etc after each weekly lecture

View Edit Comments History Map Files Administration

## Introduction

Editing this page 'Introduction'

# MOODLE WIKI

Welcome to the wiki |

Please add your comments in as structured a form as you need to e.g. use headings if section on the same page. Don't delete other people's entries unless you have good reason to correct information, however.

To add a new page

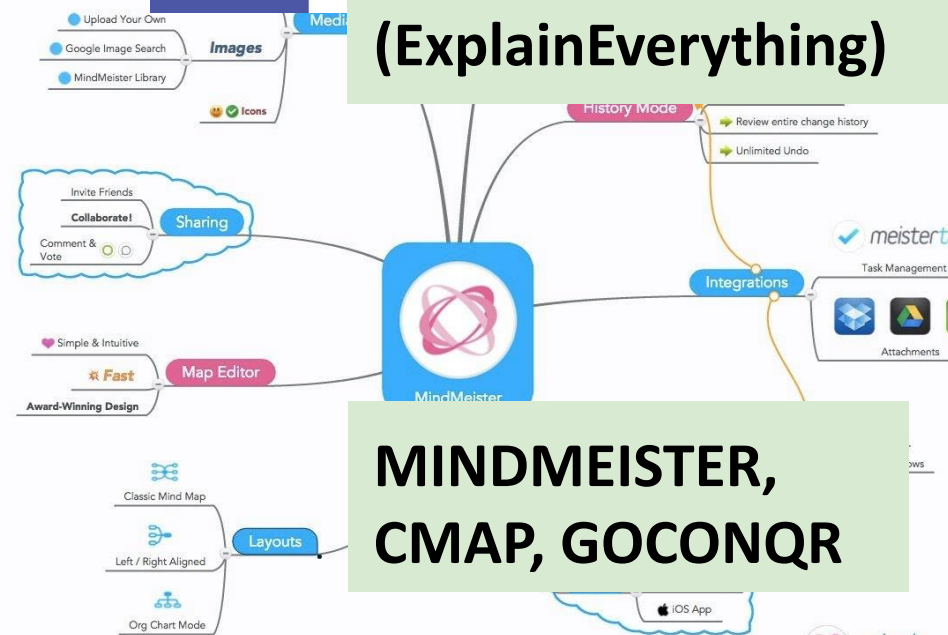
Project Based Learning

- Brainstorm & Research**
  1. Watch Dr. Fischell discuss the invention of the Svelte Stent.
  2. Identify the criteria that your product must meet.
  3. Write a design brief for your product.
  4. Brainstorm with your partners different design ideas.
  5. Evaluate all of the ideas and as a team decide which approach is the best.
  6. Gain teacher approval for your design idea.
- Design**
  7. Work with your group to develop design sketches.
- Development**
  10. Collect the necessary materials, tools, and equipment necessary to create a prototype.
- Testing & Evaluation**
  12. Obtain a Product Testing Guidelines resource sheet.
  13. Work with your partner to complete steps 1-4 on the Product Testing Guidelines.
- Branding**
  14. Create a fictional company to produce and sell your product.

## TRELLO, PADLET, MIRO



## INTERACTIVE WHITEBOARDS (ExplainEverything)



## MINDMEISTER, CMAP, GOCONQR

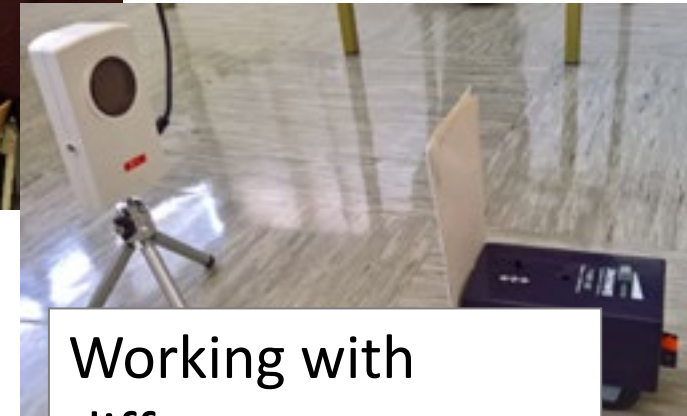
Source: wwfnepal.org

# Computer-Supported Collaborative Learning (CSCL)

- CSCL focuses on meaning making among students
- Examples of the use of ICT:
  - knowledge Forum, a web-based discussion forum, to support the knowledge building process
  - problem solving, which demands the learners to exercise metacognitive control of their thinking processes and may help to foster important group skills and perhaps in-depth learning of materials
- ICT examples:
  - Moodle Forum, Moodle Workshop, Moodle database, Moodle glossary, Moodle wiki.



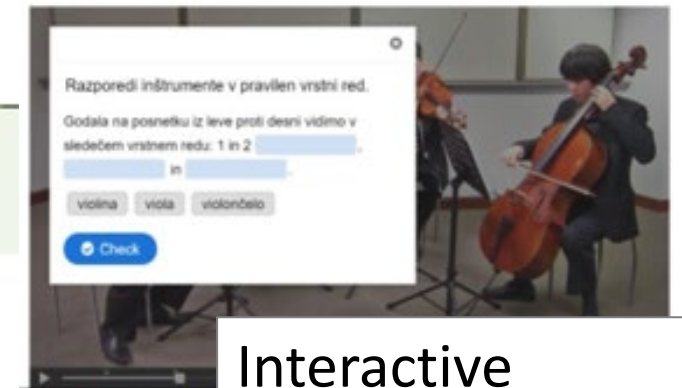
ICT supported microscopy



Working with different sensors



E-porfolios



Interactive videos

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# Thank you for attention!

## Any questions?

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