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What are the difficulties for a content teacher in adapting CLIL, and how to overcome them?

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CLIL-ite seminar
11 November 2025

Content

1. Self-introduction
2. Why team-teaching matters
3. Content instructors working alone
    1. Mindset – and its required changes
    2. Lecture approach – and its required changes
    3. Asking students
    4. Asking for help

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• 01

Self introduction

Head of Integrated International Education Center
Institute of Liberal Arts and Sciences
Nagoya University

Currently developing CLIL program at Nagoya University

Self introduction

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- Masters in Veterinary Medicine
  Trakia University, Bulgaria
- PhD in Medicine
  Nagoya University, School of Medicine
- Postdoc in Engineering lab
  Kobe University, School of Agriculture
- Teaching Biology
  Nagoya University G30 international program

Languages?

Native bilingual
First foreign language French

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• 02

Why team-teaching matters

My journey into CLIL

- Teaching biology courses for international students since 2013
- Started a biology course for Japanese students in 2019
- Expected students to “catch up” with content in “immersion format”
- Surprised over 60% drop out ration

Biology in English
Specialized introductory courses for Japanese students

Course instructor: G30 Assoc. Prof. Vassileva
Office: E202; Mail: mnvassileva@bio.nagoya-u.ac.jp

In these courses students will have a chance to:
- participate in interactive lectures in English
- read textbooks in English
- learn Biology terminology in English

- prepare posters in English
- prepare presentations in English
- practice discussion skills
- practice teamwork skills

If you want to join this course, register with the course instructor directly here:
https://bit.ly/3dSnAKn

ALL COURSES ARE OPEN TO BIOLOGY AND NON-BIOLOGY STUDENTS
ALL COURSES CAN BE JOINED WITHOUT CREDIT

term	SPRING 2020		FALL 2020	
course name	Special Lectures in Biology 17	Special Lectures in Biology 18	Special Lectures in Biology 5	Special Lectures in Biology 6
course content	Introduction to Molecular Biology	Introduction to Human Physiology	Introduction to Cell Biology	Introduction to Plant Biology
how to participate	**ONLINE (NUCT)**	(?) ONLINE / IN PERSON	(?) IN PERSON	(?) IN PERSON
student tasks (course content)	1. listen to lecture 2. answer quiz to the lecture content 3. (optional) read textbook	1. listen to lecture and discuss 2. answer quiz to the lecture content 3. (optional) read textbook	1. read textbook in advance 2. answer team quiz on textbook content 3. THEN listen to lecture and discuss	1. read textbook in advance 2. answer team quiz to the textbook content 3. THEN listen to lecture and discuss
student tasks (course activities)	1. read on researcher’s biography 2. make a poster about them	1. cook with vegetables 2. make cooking tutorial (video or presentation)	1. read scientific news in popular magazines 2. make a team presentation on scientific news	1. read research article 2. make a team presentation on research article

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CONTENT AND LANGUAGE INTEGRATED LEARNING

CONTENT instructors	LANGUAGE instructors
Skills in teaching content	Skills in teaching language
Language is an obstacle	Content is an obstacle

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• 03

Content instructors working alone

A few suggestions for content instructors to make the transition to CLIL easier

OR – a few ideas for CLIL language instructors to keep in mind when working with content instructors

Mindset - and its required changes

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- Content instructors are in love with their content, this is ALL we focus on
- There is always more content we want our students to know – more details, more perspectives, more research questions
- It is common to see students through the prism of content knowledge/ interest: students motivation is considered THEIR (the students') problem
- Major mindset change is to see students as PRODUCTS of our teaching strategies

Lecture approach - and its required changes

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- Many content instructors think that the best way to provide more content is monolog style lectures. It is. For content delivery. But not for content integration.
- Input-only approach – in a foreign language - is EXTREMELY overwhelming for students
- It is essential to reorient lectures from “teacher talking” to “students doing”
- Major issue: Inserting interactive activities and language-focused learning INEVITABLY leads to reduction of content goals.

Lecture approach – and its required changes

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- Foreign language pedagogy is an academic field.

- Reading textbooks for CLIL in similar field (or Content-based language learning) is very helpful - using concepts in language practice organization, identifying types of language exercises etc.

- Scaffolding any student planned activity – word lists, phrase samples, dialog templates, etc.

- Prepare in advance, but jump at any opportunity to add more language practice in class

Scaffolding everything

LET'S REVIEW

Close computers and other sources of information.

Share with your partner(s) what do you know about **protein structure**.

List all words connected with the topic

Draw a diagram to explain the levels of structure.

Example sentences:

What are ……(proteins) made of?
Tell me what do you know about ……..(protein structure)?
I don't remember what this …….(primary structure) is.
Do you know what this……(secondary structure) is?

Presentation project template

Reminder:
project topic has be RELATED to this course content (not anything in biology)

Your science news article has to be originally in English

Presentation project template

YOUR project title (main topic)

Your names, affiliation (Nagoya University School of …)

News source actual title

News publication name, year of publication

Slide N1

Introduction

Project-based learning

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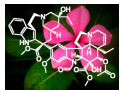
Asima Chatterjee(1917–2006)

- Pioneer of Phytochemistry & Medicinal Chemistry
- Born in Kolkata, India
- First Indian woman to receive Doctorate of Science
- Professor at University of Calcutta

Her researches

- Her main research is Vinca Alkaloids
- Vinca alkaloids interfere with microtubules and are used to treat cancer.
- Vinca alkaloids is derived from derived from the Madagascar plant *Catharanthus roseus*



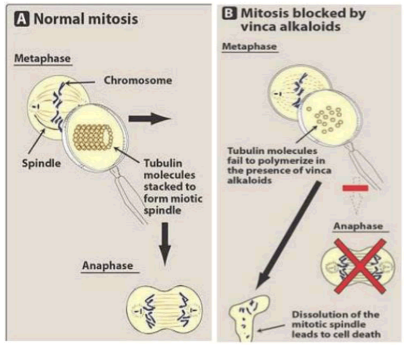


Figure 2. A) Normal mitosis; B) Mitosis blocked by vinca alkaloids.

Other researches

・the Ayurvedic antiepileptic drug "Ayush-56" from *Marsilea minuta*(a water fern used in traditional Indian medicine) and *Nardostachys jatamansi*

・Ayurveda is Indian traditional medicine

Her impact points

・She progressed her research with limited resources

・First female General President of Indian Science Congress

・Published 400+ papers

・She blended traditional knowledge and modern medicine

Link to main source: Asima Chatterjee – Pioneer of Her Time - ChemistryViews

Unlocking the Secrets of Life's First Cell

The Work of Maria-Elena Torres-Padilla

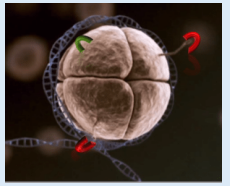
Group32 [redacted]

Who is she?

- From Mexico City
- Studied Biology at UNAM
- Ph.D. at Institut Pasteur (France)
- Postdoc at Cambridge (UK)
- Now Director at Helmholtz Stem Cell Center (Germany)

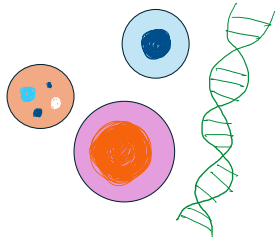
Research Focus

How can one fertilized egg become a complex organism?



Challenges

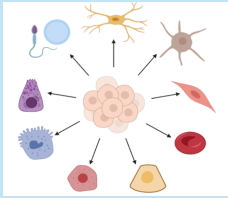
- Few female role models in science
- Limited funding in early career
- Chromatin structure and nuclear architecture
- Role of transposable elements



Why it matters

- Understanding IVF and stem cell programming
- Future of "cell design" – cell à la carte

"We are trying to understand how a single cell becomes an entire ."



Rita Levi-Montalcini

~The female neurologist who never gave up~

HER WORDS

"I should thank Mussolini for having declared me to be of an inferior race. This led me to the joy of working, not any more unfortunately in university institutes, but in a bedroom."

"If I had not been discriminated against or had not suffered persecution, I would never have received the Nobel Prize."

"I am not the body: I am the mind."

As a Jew, she had a hard time in her career. However, she did not stop her steps. As she said, she turned even adversity into strength. She was not only great neuroscientist, but also brave fighter against absurdity.

Rita Levi Montalcini: la scienziata del Nerve Growht Factor (NGF)

HER STEPS

In 1909
Rita was born in a wealthy Jewish family in Italy

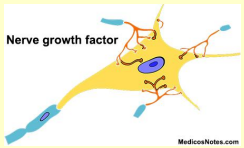
In 1930
Rita entered University of Turin
Her father thought "education will get in the way of being a wife and mother", but she never gave up to learn.

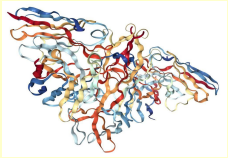
In 1938
Mussolini's racial policies during World War II led to the expulsion of Jews from academic careers

In 1947
Rita moved to the United States to study at Washington University in St. Louis.

In 1986
She got Nobel Prize in Physiology or Medicine for her research of Nerve Growth Factor with her coworker

In 2012
She died when she was 103 years old. She was eldest of living Nobel Prize winners. She continued her research until her death.





HER RESEARCH

One of her biggest achievement is discovery of Nerve Growth Factor (NGF). NGF is mainly involved in the growth, maintenance, proliferation, and survival of nerve cells. Without NGF, apoptosis (a form of programmed cell death) will be caused. She found it with her coworker, Stanley Cohen and received Novel Prize in Physiology or Medicine in 1986.

HER STRUGGLE

After the law prohibited Jewish people from engaging in medicine in 1938, she established a laboratory in her bedroom at home! She never gave up to pursue the truth. She dedicated her life to reveal the secret of nerves. She never married and had no children. In a 2006 interview, she said, "I never had any hesitation or regrets in this sense… My life has been enriched by excellent human relations, work and interests. I have never felt lonely." Her brave and discovery-filled life is etched in the memories of many people.

References
Women in science: 50 fearless pioneers who changed the world , Rachel Ignotofsky, 12 February 2019
THE NOBEL PRIZE RITA LEVI-MONTALCINI - NobelPrize.org, 11 July 2025
ROYAL SOCIETY OF CHEMISTRY Chemistry news, research and opinions | Chemistry World, 11 July 2025

Lecture approach – and its required changes

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- CLIL approach requires adding language goals into the course evaluation
- Evaluating language is especially difficult for content instructors

- Add language output evaluation criteria to content criteria in all assignments and projects
- Clarify language expectations for all assignments to students – write them in syllabus, explain in class

Presentation evaluation

Questions | Responses 86 | Settings

Presentation evaluation

for graders

evaluator name (nickname is enough)

Short answer text

presenting student name (full name)

Short answer text

project number (should be on the title slide)

Short answer text

presentation length

- under 10 min
- over 10 min
- Other...

explanation flow

- logical connected explanation
- jumps in logic, was hard to follow the explanation
- Other...

Presentation evaluation

Questions | Responses 86 | Settings

presentation delivery

- speaks up in own words without reading
- speaks up memorized script
- speaks up memorized script most of the time, but looks at script periodically
- mostly reads a script, but tries to speak up sometimes
- only reads a written script
- Other...

language usage

- (almost) fluent delivery
- speech is not fluent, but understandable
- speech is limited in vocabulary, but understandable
- speech is hard to comprehend
- Other...

authenticity of slides text

- slides text style/complexity and student speech level match
- slides text seems more complex than student speech level
- slides text style/complexity is significantly higher than student speech level

additional comments (optional)

Long answer text

Asking students

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- Content instructors often assume what students need.

- Implementing interactive activities gives students a chance to provide output, which is a major feedback on what students struggle with

- Projects of any size are a great way to give students voice and see what they can do

- Asking students directly – in class or through reflection assignments – gives us a way to meet students where they are, and adjust our teaching

Asking for help

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- Collaboration saves us time and brings better results for our students!

- Proactively look for language instructor on campus or at another university with CLIL experience

- The simplest way to start:

  Prepare lecture slides and have colleagues insert language scaffolding/ exercises into them

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Thank you

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