

Implementation of a CLIL project in a VET centre

Much more than Lab procedures

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My dream

To perform most of our laboratory practices in English

Context

- High complexity centre in Badalona (Barcelona)
- Middle Level Training : Pharmacy and Parapharmacy Technicians
- Subject: Laboratory Procedures
- About 15 students

Context

- Age and characteristics: 16 years old and up
- Previous knowledge. Most of them:
 - Weak at science
 - Weak at English language (with happy exceptions)
 - But... they have already performed several labs in this module (some lab skills)

My dream

To perform most of our laboratory practices in English...

How?

... By translating

Did it work? Please participate in the chat

- Yes, because....
- No, because...



Students initial reaction



Did it work?

Reformulating my dream

- To perform most of our laboratory practices in English...

... by:

- Helping my students understand the procedures
- Fostering T-ST and ST-ST interaction
- Helping my students write their conclusions

My plan

- 12 laboratory practices in English
- From December to May, weekly
- 2 hours sessions

Objectives of each lab

- 1st session: related to understand the written procedure. Students should be able to:
 - analyze the problem
 - describe materials and explain the functions
 - explain the steps to perform the lab.
- 2nd session: Students should be able to...
 - perform the lab practice
 - interact in English while performing the lab

An example: Adsorption of the components of a Coke

- Highly scaffolded
- Great students' understanding and interaction
- Objective: to remove some of the components of the coke by using charcoal (*carbon*)



Materials

- Lab procedure (4 pages).
- Lab notebook
- Flash cards
- Lab tools and reactants.
- Lab coat

CLIL approach keys

- Predict vocabulary and expressions that the students will need to
 - Understand
 - Communicate

and offer it as language support

Help students at all the steps:

- **Before reading the lab procedure**, to retrieve previous ideas and help with vocabulary
- **While reading it**
 - Non verbal language
 - Drawings, layouts
 - Fostering T-S interaction
- **While they are performing the lab**, offering “speaking frames”
- **While they are writing their results and conclusions**, offering “speaking frames”

“Guess what...” a good HOOK

At the beginning of the session, to motivate, to create expectation... Guess what????

Examples

- Hypothesize about what will happen when....
- You can use the prediction before and after reading a text. Example:
 - c) Coca-cola is an homogeneous mixture (a solution)
 - d) In our lab, the adsorbent will be the activated charcoal.
 - e) In our lab, the activated charcoal will adsorb one of the components of charcoal

(if you say True, which component ?.....)

Before reading the procedure

Teacher's preparation

In advance, predict the words that will be difficult or that they will need to be able to speak.

Prepare 2 sets of
Flashcards

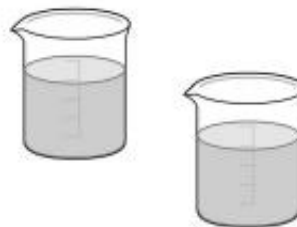


1- Laboratory materials

2- Other Key words related to the adsorption process

Laboratory tools flashcards

2 beakers (about 100mL)



Scales

Spatula



Funnel



Activated Charcoal
(powder with adsorbent
properties)

1 graduated cylinder
(100 mL)



Also called activated carbon



Before reading the procedure

Lab tools flashcards (4 min)

In pairs, ask to each other (language support on the board):

- What's this ...? - This is a - I think it's a
- What do we use it for? - We use it for containing / stirring/ weighing....
- What's the name of this tool? - This is a

Processes and others....flashcards

ADSORPTION	Process in which one component is adhered to a surface	FLAVOR
TO FIND OUT	To discover	The distinctive taste of something in the mouth
SURFACE	The outer face of something	DIFFUSIONAL SEPARATION
MECHANICAL SEPARATION	That separates compounds from an <u>heterogeneous</u> mixture	That separates compounds from an <u>homogeneous</u> mixture

Before reading the procedure

Key words flashcards (4 min)

In pairs, ask to each other (language support on the board):

- What do you call the process in which? - We call it
- What does xxxxxx mean? It means....

While Reading the lab procedure

- The written procedure:
 - Must be easy to follow (written with basic vocabulary)
 - Must contain simple activities so that students fill in the gaps, relate columns and finally write conclusions

While we are reading...

- Use body language
- Show realia (for instance, actual lab tools)
- Show difficult words, labelled images, etc...
- Varied resources for language support

• **PREPARE**

• **WEIGHT**



• **MEASURE**

• **ENSEMBLE** (put together)

• **PLACE**

• **POUR** (transfer from one re

• **STIR**

• **COLLECT**

• **REPEAT**



2nd Session. Students...

- perform the lab. The teacher fosters interaction by using the provided speaking frames

Do we have the filter paper?

Which is the first/next step?

Next step is number.....

I don't understand step

Miss, could you explain me step....., please

Miss, I can't find this material... Where is this tool?

What does "pour" mean?

- write results and conclusions (writing frames)



Results of my CLIL experience (through a survey)

How to extend my experience in my centre

Next year

- Experiencing CLIL skills course
- Innovation group

in order to spread the CLIL approach to other teachers



Watch this video excerpt(5 minutes long)

<https://youtu.be/xlZnhtWl47w>



**THANK YOU
FOR YOUR ATENTION**