

Rubric for assessing the implementation of CLIL didactics units

SUBSCALES

1. Didactic strategies
2. Verbal language
3. Paraverbal language
4. Non-verbal language
5. Science
6. Pupils
 - 6.1. Attitude and motivation
 - 6.2. Verbal language
 - 6.3. Non-verbal language
 - 6.4. Understanding

	Frequency	Level
1	Never	Very low
2	Rarely	Low
3	Often	Medium
4	Very often	High
5	Always	Very high
* terms marked with an asterisk indicate that the measurement is inverse (5 very low-1 very high)		

Subscale	ITEMS	1	2	3	4	5
1	The teacher gives feedback in English when the pupil speaks in Spanish.					
1	The teacher uses specific, clear and well-defined questions that the pupil can answer.					
1	The teacher adapts according to the responses from the pupils.					
1	The teacher is able to offer different explanations for the same concept.					
1	Key vocabulary/ideas are taught.					
1	Resources written in English are used to support explanation.					
1	The teacher reinforces the pupil when The teacher speaks in English.					
1	The teacher asks questions to check pupil comprehension.					
1	The teacher makes us of group control techniques.					
1	The materials are carefully prepared, focused on the topic to be covered and adapted to children.					
1	The teacher implements strategies so that no pupil is inactive.					
1	Roles are distributed when working in groups.					
1	The methodological principles of an inquiry are followed (when applicable).					
2	English level.					
2	The teacher communicates in English.					
2*	The teacher constantly translates the message to be conveyed.					
2	The teacher feels comfortable and safe using this language.					
2	The teacher uses vocabulary and expressions adapted to the level of the pupils.					
2	The teacher uses a vocabulary and expressions adapted to the level of the pupils.					
2*	The teacher uses filler words.					
2*	The teacher confuses the main terms in English.					
3	Rhythm and slow speed, adapted to the needs of pupils.					
3	The voice is modulated emphasizing those most important aspects.					
3	The teacher takes breaks at the necessary times.					

Supplementary Material

3	Speech is fluent.					
4	Proximity: moves through the classroom, approaching pupils and controlling the entire space.					
4	Body posture: safe, upright, leaning forward.					
4	The gestures serve as support, accompanying and complementing the explanations.					
4	The teacher maintains a constant and balanced regular eye contact among all pupils in the classroom.					
4*	The teacher is nervous and performs repetitive movements.					
5	The steps of scientific research are explained.					
5	They are clear about the scientific concepts involved in the experiments.					
5	The question of the inquiry is defined, it is clear and it really presents a problem to solve.					
5	There is an integration of the language (CLIL).					
5	The activities have been designed to develop all pupil skills (comprehension, and oral and written expression).					
5	There is a balance between oral comprehension and oral expression activities.					
5	There is a balance between the activities of oral expression and written expression.					
5	The teacher encourages the involvement of the pupils in the explanations of the projects.					
5	The activities have been carefully explained and concerns that may arise					
5	The teacher values pupil interventions.					
5	If the pupils' explanations (output) are wrong, the teacher directs the pupils to find the right solution.					
6.1	Pupils are predisposed to completion of the activity.					
6.1	Pupils actively participate in class.					
6.1	The pupils have fun and enjoy the activities.					
6.1	.Pupils show interest in the problem/issue under investigation.					
6.1	When working in a small group, there is no pupil who is doing nothing.					
6.1	Pupils respect the rules of coexistence and take care of the materials.					
6.2	Pupils strive to communicate in English at previously established situations.					
6.2	Children use the key vocabulary worked.					
6.2*	.Pupils are afraid to communicate in English.					
6.2*	Pupils only use Spanish.					
6.3	Pupils are relaxed					
6.3	Pupils pay attention to the explanations					
6.3*	Pupils are bored: yawning, sighing, gazing elsewhere...					
6.4*	English implies an obstacle to understanding.					
6.4	They understand the essential concepts at work in the inquiry					
6.4	They are able to formulate hypotheses.					
6.4	They are able to perform the experiments autonomously following the established guidelines.					
6.4	They are able to analyse the results.					
6.4	They are able to draw simple conclusions.					
6.4	They are able to present the conclusions to their colleagues.					

Subscales	1	2	3	4	5	6				Final score
						6.1	6.2	6.3	6.4	
Score										

Example of the pupils' survey

Workshop name: _____

We would like to know what you think about science. To do so, we ask you to answer the following questions. Your answer is anonymous, so please be as honest as possible. Thank you very much for your cooperation. 😊

I am: Girl ☐ Boy ☐

How old are you? _____

Is this the first time you have participated in Science Saturdays? Yes ☐ No ☐

Please mark your answer with an X.

	Not at all	A little	Quite a lot	A lot
Did you enjoy the workshop?				
Working as you did in this workshop, were you more interested in natural sciences?				
Did you enjoy working in a group?				
Did you like the theme of the workshop?				

Volcanoes. Physical and chemical changes

What type of change does the matter undergo in the following situations? Select the answer that you think is correct :

- The mixture of vinegar and bicarbonate produces a physical / chemical change.
- The evaporation of water produces a physical / chemical change.
- The mixture of water and sand produces a physical / chemical change.

Questions of the semi-structured interview

1. What has been your experience of learning science throughout your academic career? And about English?
2. Do you think science is important at school? Why?
3. How do you feel about scientific inquiry?
4. What is your opinion about bilingualism in schools?
5. What do you think about teaching science in English?
6. What do you think about Saturdays of Science?
7. How did you feel during the workshops, and would you have preferred to do them in Spanish?
8. Has your view on teaching science in English changed after Saturdays of Science?
9. Do you now consider yourself better able to develop the teaching of natural science in English? Do you think you are now more prepared to develop the teaching of natural science in English?
10. Would you develop sessions in a school where you work on an inquiry-based teaching sequence in English?
11. What do you consider to be the most effective strategies for the learning of natural science in English?