Pedagogical Cluster- Journal of Pedagogical Developments
PCJPD: Volume 2 Issue 3, March 2024, online: ISSN 2956-896X

PEDAGOGICAL CLUSTER
JOURNAL OF PEDAGOGICAL DEVELOPMENTS

Website: https://euroasianjournals.org/index.php/pc/index

Using Clil Technology in Mathematics Lessons

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Abstract: Mathematical CLIL – adaptation of CLIL to mathematics. Mathematics is often described as a subject with its own language. Therefore, "CLIL" mathematics teachers teach not only the subject itself, but also two languages - the language of mathematics and a second or foreign language.
Key words: Mathematics, symbols, visual aids, text, reasoning, mathematical problem, mathematical vocabulary

Matematika Darslarida Clil Texnologiyasidan Foydalanish

Matupayeva Shohsanam Zaripboy qizi
Chirchiq davlat pedagogika universiteti
“Boshlang‘ich ta‘lim metodikasi” kafedrasi katta o’qituvchisi,
Pedagogika fanlari bo‘yicha falsafa doktori, (PhD)

Annotatsiya: Matematik CLIL – CLILning matematikaga moslashuvi. Matematika ko'pincha o'z tiliga ega bo'lgan fan sifatida tasvirlanadi. Shu sababli, “CLIL”chi matematika o'qituvchilari nafaqat fanning o'zini, balki ikkita tilni - matematika tilini va ikkinchi yoki chet tilini ham o'rgatishadi.
Kalit so’zlar: matematika, belgilar, ko’rgazmali qurollar, matn, fikrlash, matematik masala, matematik lug’at.

Использование Технологии Clil На Уроках Математики

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Аннотация: Математический CLIL – адаптация CLIL к математике. Математику часто описывают как предмет со своим собственным языком. Поэтому преподаватели математики «CLIL» преподают не только сам предмет, но и два языка – язык математики и второй или иностранный язык.

Ключевые слова: математика, знаки, наглядные пособия, текст, рассуждения, математическая задача, математический словарь.

In the Decree of the President of the Republic of Uzbekistan dated January 28, 2022 No. PF-60 "On the Development Strategy of the New Uzbekistan for 2022-2026" on the basis of full revision and implementation" issue is defined, in this regard it is important to carry out research aimed at improving the quality management system of English language teaching in pedagogical higher education institutions.

The language of mathematics consists of symbols, visual aids and technical terms. In mathematics, less information is introduced through texts than in other subjects. During class, students typically solve problems or listen to a teacher explain mathematical concepts. From the point of view of mathematics, it is necessary to form the ability and desire to apply mathematical knowledge and skills in everyday practical life, using different approaches that require thinking and intuition.

A special feature of foreign language as a school subject is its interdisciplinarity. Reading skills developed in foreign language classes help to understand the text and text assignments in mathematics. Therefore, the knowledge of numbers is an important element for the acquisition of mathematical literacy, and good control of oral and written speech helps to correctly understand and correctly structure mathematical texts.

The difficulties of mathematics teachers are that they have to introduce students not only to the language of mathematics, but also to create opportunities for students to use this language together with a second or foreign language in the lesson.

In math lessons, teachers can ask students to verbalize what they have learned, talk about solving a problem, predict possible solutions, and justify their

answers. Another challenge is that CLIL mathematics teachers need to develop their writing skills. Therefore, in addition to teaching science, teachers can also teach students to think, speak, and write like mathematicians.

Examples of incorporating oral, visual, and written information in math lessons include:

• The teacher explains the solution of mathematics, gives instructions and shows tasks;

• Written texts: everyday situations, tasks, facts, numbers, figures, numbers, described as task conditions

• Video and audio materials: online interactive games, video clips about how mathematics is used in everyday life

• Objects and models: 3D objects, protractor, compass.

• Practical work: measuring things inside and outside the classroom

• Visual aids; visual information and symbols (numbers, graphs, tables, diagrams, formulas (for example: S=V*T), photographs).

In mathematics, language is used for many functions and genres, and different types of texts are used. For example:

• Describes and informs: that is, the characteristics are described: factual and informative, technical language is used without a story line; definitions are given (in a parallelogram, opposite sides are parallel and equal),

- numbers are used (a triangle has three sides),
- simple present tense (6 plus 4 equals),
- passive voice (y minus x 13) ,
- degrees of comparison (greater) and words- (therefore);

Information is presented in the form of various graphics or using symbols instead of words (0.75%), and prepositions are used. (into, by).

• Gives instructions - for example, how to solve a math problem: using the indefinite form of a verb, as well as imperative verbs (multiplying the length by the width to calculate the area of a square), as well as linking. words to list the steps in solving a problem (before, then, finally).

• Explains - eg: how and why math problems work: use present tense to explain symbols, visual aids and other information, show the order of linking words (second order) and linking question is used to indicate (if).

• Guesses and predicts: using the future tense (Answer will be less than 4), conditional will (if... then), modal verbs expressing the future tense (will), modal verbs expressing recommendation (before he you need to calculate) .

- Algebraic and graphical sentences are expressed without words or with a few words.
- Different cultures use different mathematical symbols (for example, in the UK and US, a period separates a whole number from tenths or hundredths, whereas in Europe, a comma is used).
- Culture-specific symbols are used (€20, £20.00, $20).
- Special vocabulary specific to mathematics (vector, section, highest common denominator), everyday words with special meaning in mathematics (table, volume, root, factor, root, symbol, similar, mean, mean, plane).
- words with Greek and Latin roots (polygon, hexagon, kilometer), homonyms (solution in science, chord in music), everyday words in word combinations unique to mathematics (square root, square) is used. the meaning changes when used in a mathematical context (subtract, subtract, minus, reduce, remove, discount).
- Compound nouns (highest common factor) are used.
- Short and clear language is used, meaning very few words are used to inform the readers. Calculate how many 400 x 400 mm tiles are needed to cover a 2.1 m x 4 m x 5 m (h) bathroom.

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