

The necessity of Assessment and Evaluation

Assessment is a systematic process of gathering information about what a student knows, is able to do, and is learning to do. Assessment information provides the foundation for decision-making and planning for instruction and learning.

Assessment is an integral part of the teaching and learning progress that enhances, empowers, and celebrates student learning. Using a variety of assessment techniques, us teachers gather information about what students know and are able to do, so we could provide positive, supportive feedback to students. We also use this information to diagnose individual needs and to improve our instructional programs, which in turn helps students learn more effectively.



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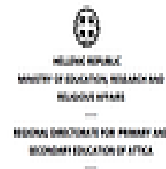
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Officina Pedagogica Regionale per la Ricerca



Evaluation refers to the decision making which follows assessment. Evaluation is a judgment regarding the quality, value, or worth of a response, product, or performance based on established criteria and curriculum standards. Evaluation should reflect the intended learning outcomes of the curriculum and be consistent with the approach used to teach mathematics. But it should also be sensitive to differences in culture, gender, and socio-economic background. Students should be given opportunities to demonstrate the full extent of their knowledge, skills, and abilities.



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Diagnostic Assessment

Diagnostic assessment may occur at the beginning of a term or a unit of study, or whenever information about the prior learning of a student is useful. Various types of diagnostic assessments (tests, journals, performance-based assessment, etc.) may be used to collect that information. Teachers may use diagnostic assessment to

- find out what students know and can do
- identify student strengths and plan instruction which builds on and extends those strengths
- target difficulties, identify the precise nature of them, and plan instruction to meet those difficulties
- make informed decisions regarding where to focus instructional time and effort



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The activity “A Walk To The Supermarket”

In a regular classroom which includes immigrant and refugee students an introductory diagnostic assessment at the beginning seems necessary.

“A Walk To The Supermarket” is planned for the assessment of all the newly arrived -including immigrant and refugee - students at the 1st grade of secondary education.

Without the use of any word only images (familiar to all) and mathematic symbols , we ask the student to perform simple mathematic operations.

- The students could work collaboratively in small groups of 2 students.*
- No extra materials are required.*



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A Walk To The Super Market



(An open process to determine the kind of matches students can do)





 0,50€ / kg	 4€ /kg
 2,50 € /kg	 0,80 €
 1 €	 3 €
 2 €	

a) 2  +  =

b) 3  + 3  - 3  =

c)  =  + _____

d) 5  + _____ = 

e) 5 · _____ = 

f) 500gr  =

g)  =



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- *This is a real-life depictive representation of a problem that will help us to determine the mathematical capacity of all - including immigrant and refugee – students: to that we build upon their promptness for “solving”, or – in a broad sense – engaging in (collaborative) learning procedures.*
- *All “problems” tend to assess references to symbolic language, “mathematization” of real-life-problems, and a grasping of what a “task-sheet” could (would) call for.*



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- *Attention!!! We don't assess the way they arrived to an answer only the answer cause not all students have the same schooling background.*
- *The **g** question is an **open** one with multiple correct answers that will allow us to evaluate the students ability on **algebraic expressions**;*
 - *it would be welcome to intrigue them to provide for rules or criteria, if they stick to one answer, or for more than one correct answers each;*
 - *we could probably also call for an evaluation of the corresponding list!*



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Further more

- *In an attempt to connect mathematics and language learning we could provide the students with a special dictionary with all the words that we could use at this particular problem. An example is given below where foreign students are called to fill in the gaps of their own language, so that a new dictionary for all students be created.*
- *We could also ask the students to create their own corresponding problems of leveled complexity.*



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History of Mathematics

- *We could also mention in an attempt to stimulate the students interest that **Abu'l Hasan Ahmad ibn Ibrahim Al-Uqlidisi** (Arabic: **أبو الحسن أحمد بن إبراهيم الإقليديسي**) a Muslim Arab mathematician, that lived in Syria (920-982), was the first one who worked with decimal fractions while Simon Stevin in the 16th century suggested the way we write decimal numbers today.*



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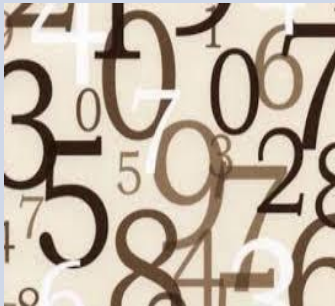


Dictionary



Greek:
(lexiko)
English:
Arabic:
Urdu:
Turkish:
Kurdish:
Farsi:

ΛΕΞΙΚΟ
λεξικό
dictionary



Greek:
(arithmos)
English:
Arabic:
Urdu:
Turkish:
Kurdish:
Farsi:

ΑΡΙΘΜΟΣ
Αριθμός
number



Greek:
(sin)
English:
Arabic:
Urdu:
Turkish:
Kurdish:
Farsi:

ΣΥΝ
συν-πρόσθεσε
plus-add



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Greek:
(plin)
English:
Arabic:
Urdu:
Turkish:
Kurdish:
Farsi:

ΠΑΗΝ
Πλην-αφαίρεσε
minus-subtract



Greek:
(epi)
English:
Arabic:
Urdu:
Turkish:
Kurdish:
Farsi:

ΕΠΙ
Επί-πολλαπλασίασε
times-multiply



Greek:
(ison)
English:
Arabic:
Urdu:
Turkish:
Kurdish:
Farsi:

ΙΣΟΝ
Ίσον –ισούται
Equals



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1



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Greek:
(ena)
English:
Arabic:
Urdu:
Turkish:
Kurdish:
Farsi:

ENA
ένα
one

2



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Greek:
(dio)
English:
Arabic:
Urdu:
Turkish:
Kurdish:
Farsi:

ΔΥΟ
δύο
two

3



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Greek:
tria
English:
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ΤΡΙΑ
τρία
three

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