

## Early Childhood Education. Symptoms and signs

1. Problems learning to count. For example, he cannot remember the numbers in the correct order or when asked for four units he is only able to take a handful, instead of counting them.
2. Difficulty understanding math-related terms. For example, "bigger," "smaller."
3. He cannot understand the relationship between number and quantity.



<https://www.smartick.es/blog/educacion/necesidades-educational-especiales/que-es-discalculia/>

# Warning signs on the Stage Primary



## Primary education. Symptoms and signs

- Difficulty identifying +, – and other arithmetic symbols, and using them correctly.
- Learn and remember number facts (for example:  $2+8$ ,  $4\times 7$ ).
- You can continue to use your fingers to count instead of using more advanced strategies such as mental math.
- Understand words related to mathematics, such as “greater than” and  $<$
- Problems with visual-spatial representations of numbers, like number lines.
- With the value of the position of the numbers (ones, tens, hundreds).
- Problems writing nos or putting them in the correct column in written calculations.



<https://www.smartick.es/blog/educacion/special-educational-needs/what-is-dyscalculia/>

# Warning signs at the stage of PD

- ü **Uses fingers a lot to count** instead of using more advanced strategies (like mental math).
- ü **Difficulty counting backwards** ü It is very difficult for you to make **approximate calculations**
- ü It is very difficult for him to **manipulate large figures**, such as hundreds or thousands
- ü **Has transcription errors**, for example, when writing dictated numbers
- ü **Has difficulty learning and remembering** basic numerical facts such as number bonds, for example,  $6 + 4 = 10$ .
- ü **Lack of understanding of the signs +, -, x, :** Or confuse these mathematical symbols
- ü You have difficulty recognizing that  $3 + 5$  is the same as  $5 + 3$  or you may not be able to solve  $3 + 26 - 26$  without calculating
- ü **Difficulty copying or drawing shapes;** identify figures from another angle or perspective

Source: Maths Explained. Quoted in The dyslexia association

<https://www.dyslexia.uk.net/specific-learning-difficulties/dyscalculia/the-signs-of-dyscalculia/>





## Warning signs at the stage of PD

- ü Has problems with place value, often puts numbers in the column incorrect.

- ü You may not understand mathematical language or be able to devise a plan to solve a mathematical problem.

- ü Has difficulty understanding mathematical phrases such as:  $>$  and  $<$

- ü Has trouble keeping score in sports or games.

- ü Avoid situations that require understanding numbers, such as playing games that involve mathematics: winning/losing games in a game

- ü Difficulty calculating the total cost of items and you may run out of money

- ü As time passes, it is common to manifest anxiety or blockage towards mathematical tasks since there is a feeling of failure

( Beginning at 6 years )

- ü Low performance in Mathematics.

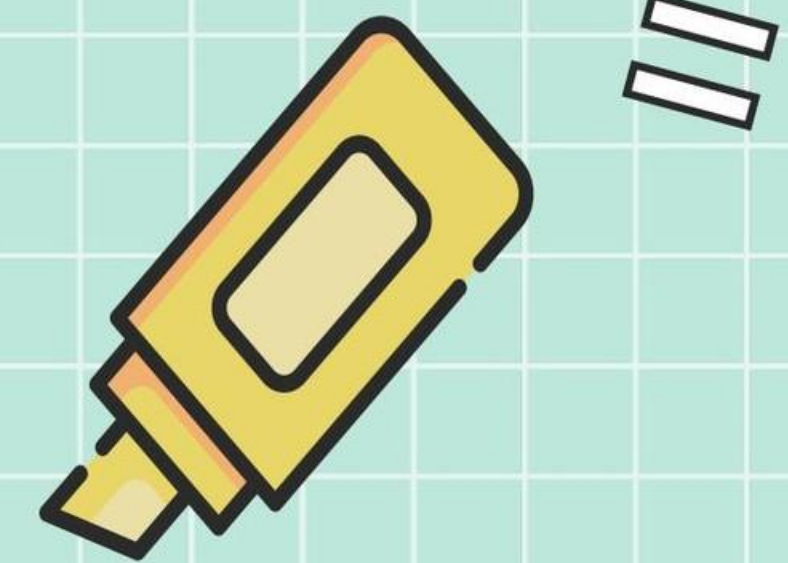
## Warning signs at the stage of PD

- ü Difficulties recognizing arithmetic signs.
- ü Fragility in the use of arithmetic facts according to age: simple additions (2+4) and multiplication tables.
- ü Exaggerated dependence on fingers to count.
- ü Poor mental calculation and mechanical memory.
- ü Confusions in the alignment of numbers in a column.
- ü Lack of acquisition of the base system 10.
- ü Errors in the conversion of units of measurement.
- ü Errors in logic or reasoning: incoherent results.
- ü Difficulties in understanding problem statements.
- ü They may have problems understanding time or locating themselves spatially.
- ü They verbalize their difficulties, especially from the 3rd grade onwards:  
"I can't" "I'm good at math," "I don't like math."

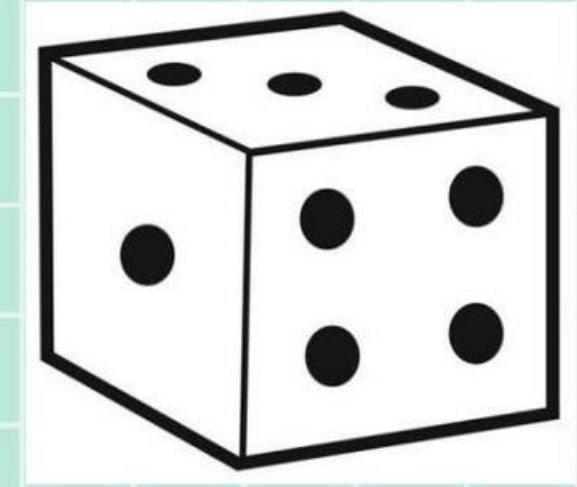
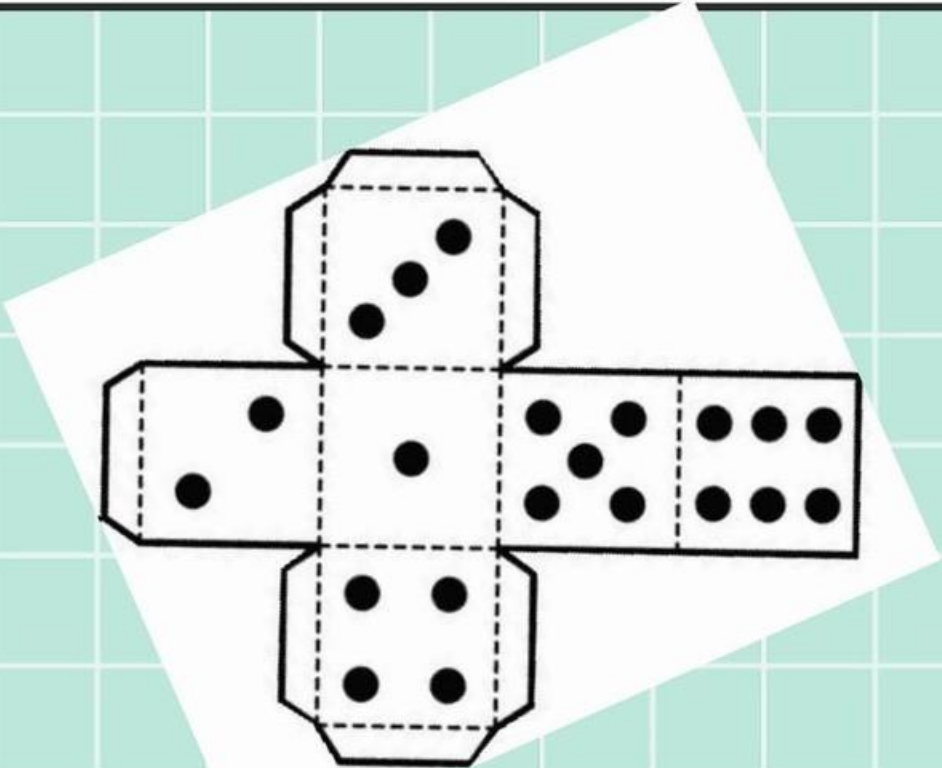
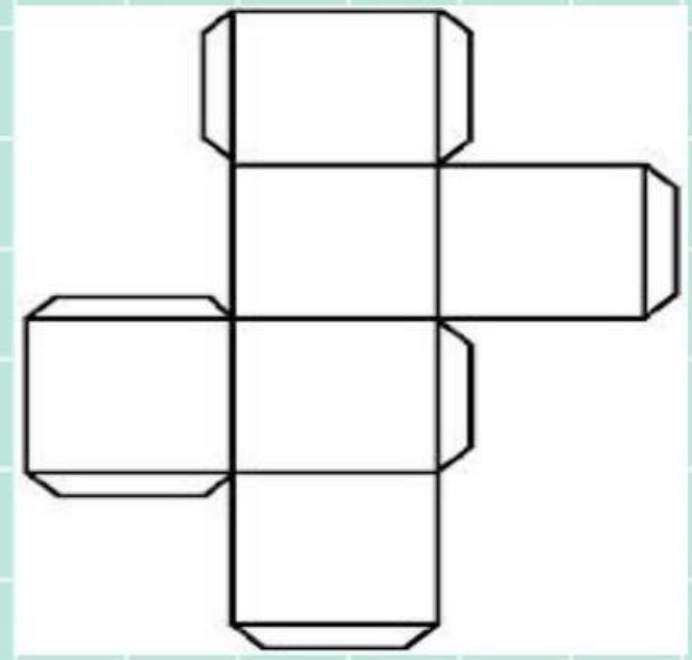


[https:// sites.google.com/ view/ dyscalculia/ p%C3%A1gina-principal?authuser=0](https://sites.google.com/view/dyscalculia/p%C3%A1gina-principal?authuser=0)

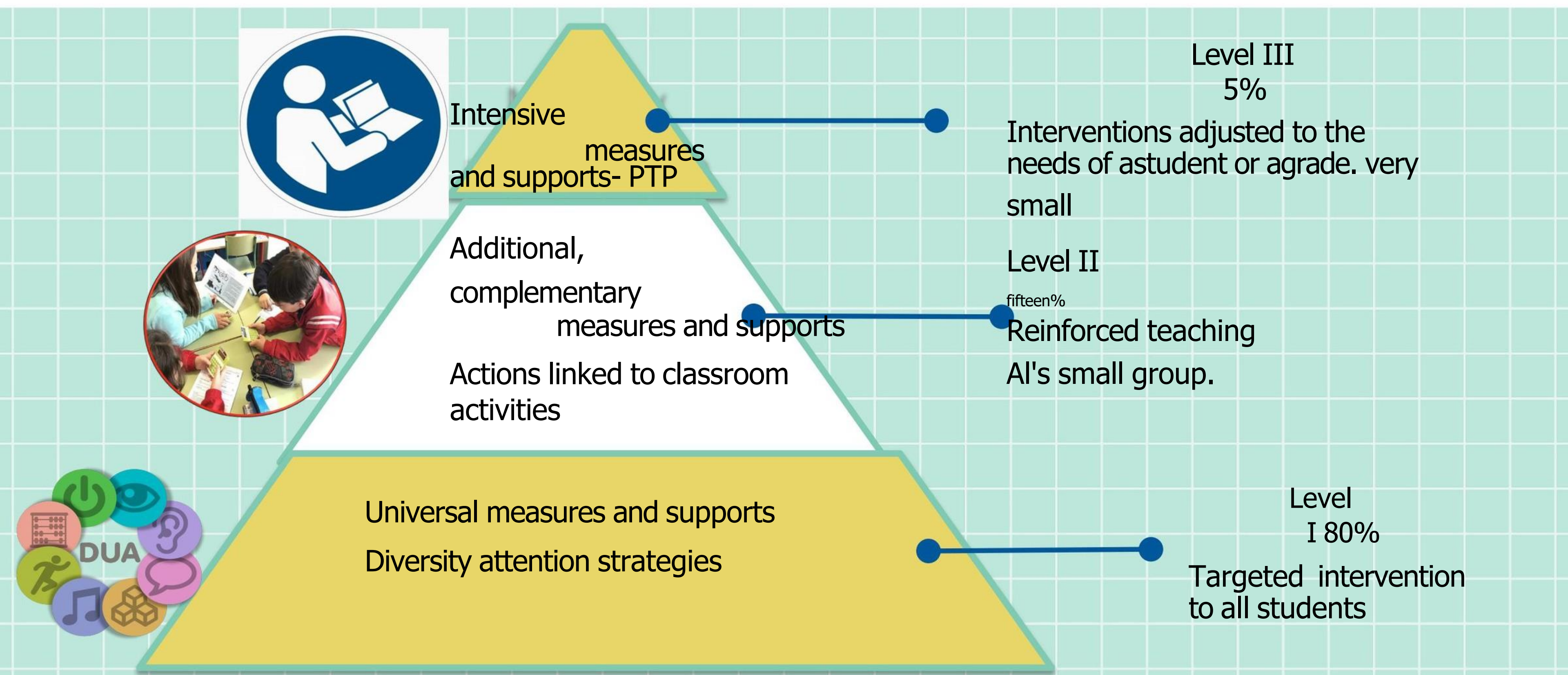




# 5. Intervention

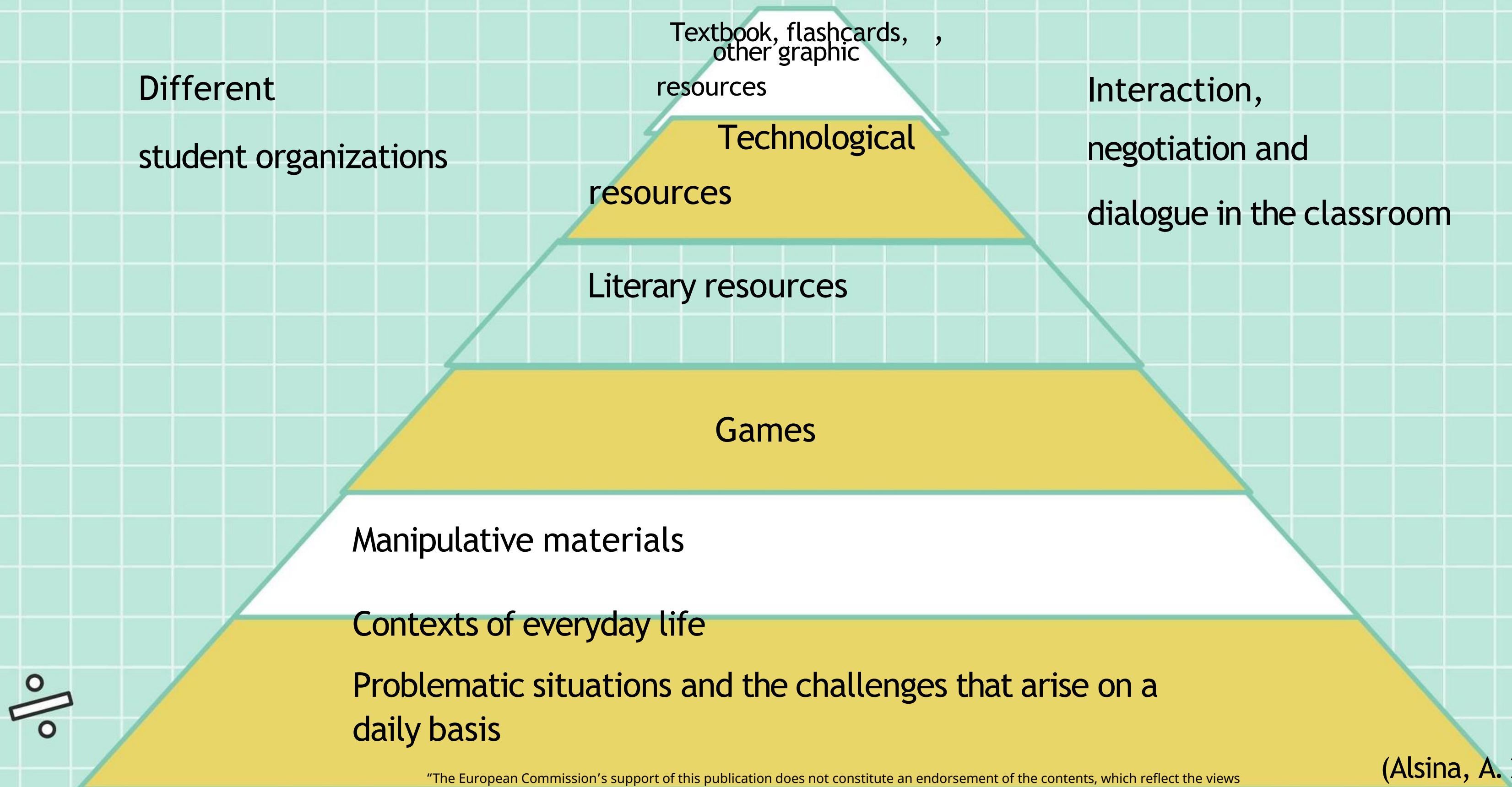


# Response to Intervention (RtI) Model





# The Pyramid of Mathematics Education



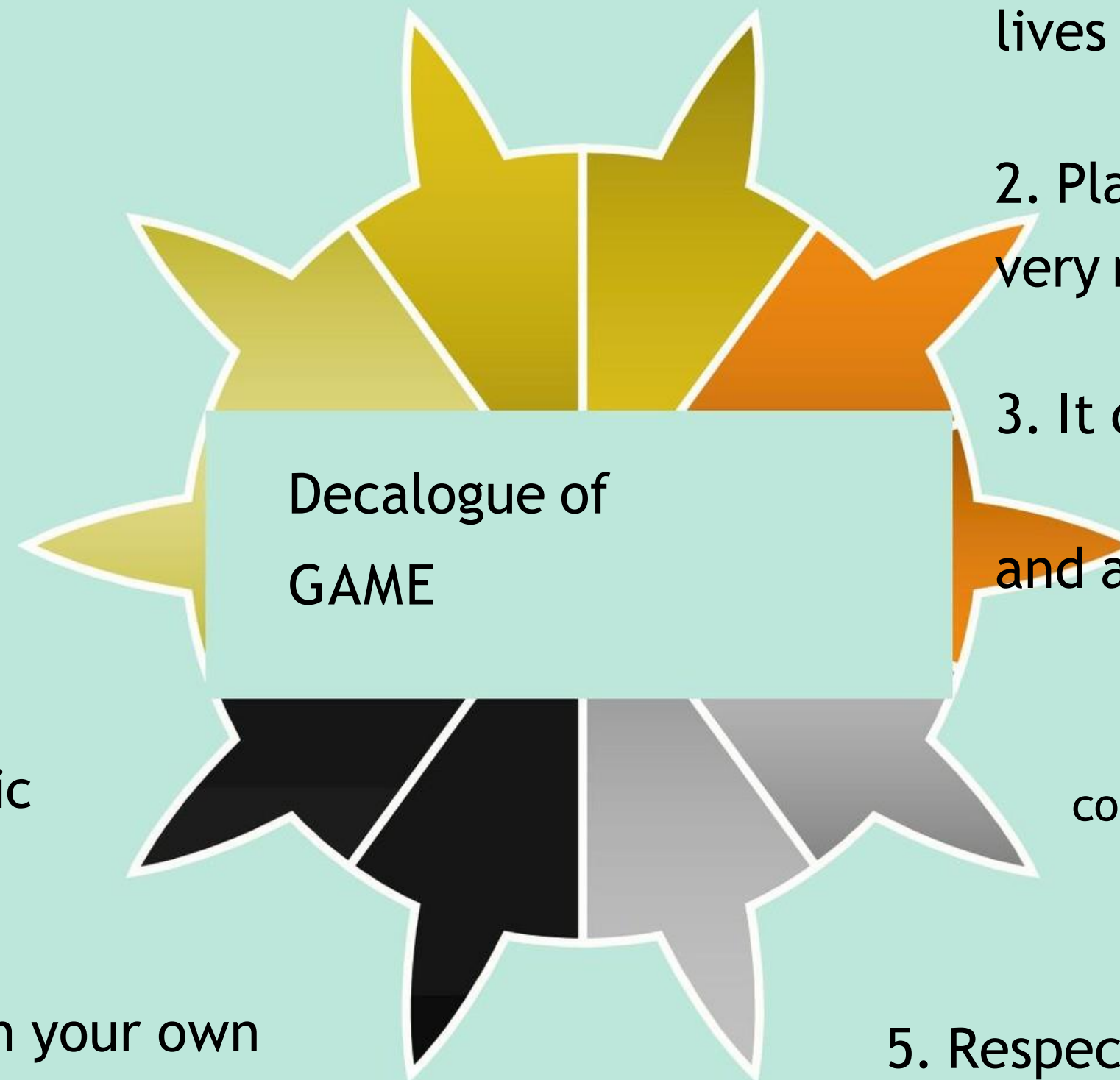
10. Promotes meaningful learning

9. The playful aspect of mathematics brings closer to the reality of the students

8. Facilitates the socialization process and personal autonomy.

7. Allows you to develop basic psychological processes

6. It allows you to learn from your own error and the error of others



1. It is the most real part of children's lives

2. Playful activities are very motivating

3. It deals with different types of knowledge, skills and attitudes

4. It allows you to face new mathematical content without fear of initial failure.

5. Respect the diversity of the students

(Decalogue of Alsina i Pastells, A., 2004)