Caesar Cipher

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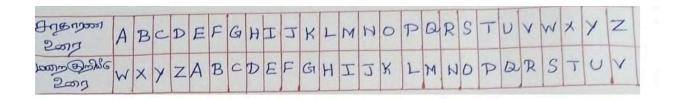
School Overview:

- TELC Middle School for the Visually Impaired, Tirupattur - 630211, Sivagangai District.
-Our school has a total of 30 students (20 boys, 10 girls) from class 1 to class 8.
-Among them, 16 students are totally blind, and 14 are partially sighted.

Learning Approach:

-Let's play the game. Students are more interested and active in learning mathematics through play and hands-on learning.
-This method was very effective, even for students who were less interested in mathematics.
-Through CT class, students' coding and logical thinking are improved.
-Students engage in new learning approaches.

Description of the Game:

- Example from Tamil Nadu Government Class 8 Mathematics Textbook: Ex: 7.8 - Find the hidden secret words using the Caesar cipher +4 table set.
-To play this game, use a Scrabble board and coins with letters on them.
-List the English alphabets from "A" to "Z" in order.
-Create a Caesar cipher +4 table set by skipping four letters and substituting the remaining letters accordingly.
-Students use the table to find the hidden words by substituting letters.

മലയാളം 2007	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
മാറ്റം ചെയ്ത 2007	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V

Solution Example:

- Hidden letter "B" in letter "F"
-Hidden letter "R" in letter "V"
-The answer is "BREAK IN CODES CAN BE TRICKY."

Learning Experience:

- Initially, explaining verbally was challenging for students to understand.
- Using a Scrabble board and lettered coins made it easier for students to grasp the concept.
- Even students with learning disabilities learned without difficulty.
- Students develop computational thinking by using the Caesar cipher table to find hidden words step by step.
- This method improves their ability to perform other Caesar cipher calculations independently.

Impact:

- Mathematics, typically feared and hated by students, became an easy and enjoyable subject through play and hands-on learning.
-Students learn by competing and are fully engaged.
-Learning and teaching reach all students, making the process more enjoyable and exciting.
-Students are highly motivated, increasing their thinking ability and response to new challenges.