STOMP-TAP-CLAP-SNAP: A GAME FOR PROMOTING CONCEPTUAL PLACE VALUE AND ACTIVE LISTENING SKILLS IN FOUNDATION AND INTERMEDIATE PHASE LEARNERS

Debbie Stott: South African Numeracy Chair Project at Rhodes University (d.stott@ru.ac.za)

At our 2013 Chair's Community of Practice Forum, Dr Subramaniam (Ravi) from the Homi Bhabha Centre for Science Education in Mumbai, India shared this game with us. His version (included in his Grade 3 workbook) is called **TAP-CLAP-SNAP** and works with numbers up to 999. We immediately tried it our in some of our after school maths clubs. I decided to extend it to include numbers in the thousands to give it more scope for different grades and used the extended version in my Grade 4 club. In this article I share some ways of using this simple yet effective game in the classroom.

12V	A SNAP (of the fingers) means 1	R	A CLAP means 10
ar	So SNAP, SNAP, SNAP is 3	121	So CLAP, CLAP is 20
1	A TAP (on a table or desk for example) means 100	ð	A STOMP (with one foot) means 1000
<u>[=</u>]	So TAP, TAP is 200.	1	So STOMP , STOMP is 2000

Why use this game?

This is an interactive game which can be used with the whole class or groups of learners as a mental starter in a maths session. Learners can also play it in pairs by making sequences for each other to work out. The structure of the game means that it can be used effectively from grade 2 up to at least grades 5 and 6, and maybe further if learners are struggling with the concept of place value. It is a good way for learners to conceptualise expanded notation in place value without really thinking of it as "expanded notation". Early learners can benefit from the game as a way of encouraging *'counting on'* skills. For example, if you do **CLAP, SNAP, SNAP, SNAP**. They can count on from "10" (**CLAP**) in ones: "11" (**SNAP**), "12" (**SNAP**), "13" (**SNAP**).

Example Activities

Here are some examples of how we have used it in our after school maths clubsⁱ. Note that the numbers in the brackets indicate the number represented by the sequence and are for the teachers' reference only.

Beginning activities

Identifying numbers and 'counting on' skills CLAP, SNAP, SNAP, SNAP, SNAP (14) CLAP, CLAP, CLAP, SNAP, SNAP, SNAP, SNAP, SNAP, SNAP (36) TAP, TAP, CLAP, CLAP, CLAP, SNAP, SNAP (232) STOMP, TAP, TAP, TAP, TAP, CLAP, CLAP, SNAP (1421)

Adding / subtracting 10 and adding / subtracting 100

Rule is:	
add 10 to the number sequence	CLAP, CLAP, CLAP, SNAP $(31) = (41)$
subtract 10 from the number sequence	TAP, TAP, CLAP, CLAP, SNAP, SNAP (222) = (212)
add 100 to the number sequence	TAP, TAP, TAP, CLAP, CLAP, SNAP $(321) = (421)$
subtract 100 from the number	TAP, TAP, CLAP, CLAP, SNAP, SNAP, SNAP $(223) = (123)$
sequence	

Working with operations

For this series of activities, start by writing the suggested number (or something similar) on the board

35	Learners add:	SNAP, SNAP, SNAP $(3) = (38)$
57	Learners add:	TAP, TAP $(20) = (77)$
29	Learners subtract:	CLAP, SNAP, SNAP (12) = (17)
15	Learners multiply by:	SNAP, SNAP, SNAP, SNAP $(4) = (60)$
100	Learners divide by:	TAP $(10) = (10)$

More challenging activities

These activities promote careful listening skills and take the game beyond place value into working mentally with place value and operations. To add another level of interest, when someone has an answer, get them to make the sequence for the answer.

Add a sequence Now add: STOMP, STOMP, TAP, CLAP, CLAP, CLAP, SNAP, **TAP, TAP** (200) = (2332)**SNAP** (2132) Subtract a sequence STOMP, TAP, TAP, TAP, CLAP, CLAP, CLAP, SNAP, Now subtract: **TAP, TAP** (200) = (1131)**SNAP** (1331) Multiply a sequence CLAP, CLAP, SNAP, SNAP, SNAP, SNAP, SNAP (25) Now multiply by: **SNAP, SNAP, SNAP, SNAP** (4) = (100)**Divide a sequence** Now divide by: TAP, TAP, TAP, SNAP, SNAP (32) **SNAP, SNAP** (2) = (16)

The learners in our clubs like this game even though it means they have to be extra quiet in order to hear and work out the numbers! I have used the game as questions for other activities as once the learners know how it works, it can be used anywhere, anytime. Try the game yourself and adapt it to see if it will work in your classroom. Let me have your feedback and share any variations you come up with. I will feed back to Dr Subramaniam. If you want to see more of his resources, here is the link to his website where he has a selection of primary mathematics resources.

http://mathedu.hbcse.tifr.res.in/resources/materials-for-sale/curriculum-books/homi-bhabha-curriculum-for-primary-mathematics

Acknowledgments

Our numeracy research and development work is supported by the South African Numeracy Chair Initiative of the FirstRand Foundation (with the RMB), Anglo American Chairman's fund, Department of Science and Technology and the National Research Foundation

ⁱ For more information on the SANC Project after school maths clubs visit: <u>http://www.ru.ac.za/sanc/mathsclubs/</u>