A SURVEY OF THE MATHEMATICAL PROBLEMS (DYSCALCULIA) CONFRONTING PRIMARY SCHOOL PUPILS IN BUEA MUNICIPALITY IN THE SOUTH WEST REGION OF CAMEROON

By

Nekang Fabian Nfon, Ph.D
nekang.fabian@ubuea.cm; nekangnfon@gmail.com (+237) 675 34 47 45 / 693 44 32 98
Department of Curriculum Studies and Teaching, Faculty of Education,
University of Buea, Cameroon

ABSTRACT

The study investigated mathematical problems (dyscalculia) affecting primary school level two pupils in computation, sequential counting, and lack of confidence in Buea Municipality in the South West Region of Cameroon. The survey research design was found appropriate and a sample consisting of 100 primary four pupils (48 males, 52 females) were disproportionately drawn for the study. The 4-point Likert scale-type questionnaire was used for data collection. Mean scores and standard deviations were used for analyzing data to provide answers for the three research questions. The three hypotheses were tested at 0.05 level of significance using chi-square (χ^2) tests. It was found that sequential counting, the lack of confidence, and the computation of mathematical facts have significant effects on primary school pupils' achievement in Buea Municipality. It was recommended that pupils should practice number concepts, involve themselves in mathematical games, use calculators, and engage in problem-solving so as to improve on their skills, help reduce anxiety, arouse interest, bridge the gender gap and enhance achievement in mathematics and the mathematical sciences at school.

Key words: Dyscalculia, dyscalculics, dyslexia, dyspraxia, mathematicsphobia, and neuroplasticity.

Introduction

A review of literature shows that in Cameroon, secondary school students perform poorly in mathematics compared to other subjects. Examining their primary school records, it is indicative that the problems in mathematics started right at the base and because these problems were not taken seriously they escalated (dyscalculia). Dyscalculia is an impairment of the ability to solve mathematical problems, usually resulting from brain dysfunction.

Dyscalculia therefore is a brain-based condition that makes it hard to make sense of numbers and mathematics concepts. Some kids with dyscalculia cannot grasp basic number concepts. They work hard to learn and memorize basic number facts. They may know *what* to do in a mathematics class but do not understand *why* they are doing it. In other words, they miss the logic behind it. Other kids understand the logic behind the mathematics but are not sure how and when to apply their knowledge in solving problems.

Dyscalculia goes by many names. Some public schools refer to it as a "mathematics learning disability." Doctors sometimes call it a "mathematics disorder." Many kids and parents call it "mathematics dyslexia." A child's struggle with mathematics can be confusing, especially if he or she is doing well in other subjects. This can lead to anxiety and low self-esteem. Dyscalculics have said that some of the kids could read and understand well other subjects but arithmetic or

mathematics is a problem. At times during arithmetic class, they spend their time in fear and panic just at the sight of their arithmetic teacher. Harbor-Peters (2001) refers to it mathemaphobia (or mathematicsphobia).

Dyscalculia can affect many different areas of mathematics learning and performance. Different kids have different challenges. The most common problem is with "number sense." This is an intuitive understanding of how numbers work, and how to compare and estimate quantities on a number line. Most researchers agree that number sense is at the core of mathematics learning. If kids do not understand the basics about how numbers work, learning mathematics and using it every day can be very frustrating.

Studies show that even babies have a basic sense of numbers. Butterworth (2003) compares number sense to being colour-blind. He says some people are born with number blindness. This makes it hard to tell the difference between quantities. Number blindness is one reason why many kids have trouble connecting numbers to the real world. They cannot grasp the idea that "five oranges" has the same number of objects as "five bananas" and "five guavas."

To answer the question how common is dyscalculia? Thaker (2015) have the view that scientists cannot say for sure how many children or adults have dyscalculia. This is partly because different groups of researchers use different criteria for what counts as severe mathematics difficulties. There is no central data bank for the research data on dyscalculia. This makes it hard to estimate how many people it affects. An estimated 6 to 7 percent of elementary school children may have dyscalculia. It is very common for kids to have more than one learning issue. In fact, 56 percent of kids with a reading disorder also have poor mathematics achievement. And 43 percent of kids with a mathematics disability have poor reading skills.

Researchers do not know exactly what causes dyscalculia but they have identified certain factors that indicate it as a brain-based condition. The following are some of the possible causes of dyscalculia:

- **Genes and heredity:** Studies of dyscalculia show that it is more common in some families. Researchers have found that a child with dyscalculia often has a parent or sibling with similar mathematics issues. So dyscalculia may be genetic (Fletcher, 2007).
- **Brain development:** Researchers are using modern brain imaging tools to study the brains of people with and without mathematics issues. What we learn from research may help us understand how to help kids with dyscalculia. Studies have also found differences in the surface area, thickness and volume of parts of the brain. Those areas are linked to learning and memory, setting up and monitoring tasks and remembering mathematics facts (Ranpura, 2013).
- **Environment:** Dyscalculia has been linked to exposure to alcohol in the womb (Wilson, 2015). Prematurity and low birth weight may also play a role in dyscalculia (Shalev, 2004).
- **Brain injury:** Studies show that injury to certain parts of the brain can result in what researchers call "acquired dyscalculia."

For children with dyscalculia, it is unclear how much their brain differences are shaped by genetics and how much by their experiences. Researchers are trying to learn if certain interventions for dyscalculia can "rewire" a child's brain to make mathematics easier. This concept is known as "neuroplasticity" and has been shown to work in people with dyslexia.

What are the symptoms of dyscalculia?

Dyscalculia includes different kinds of mathematics difficulties. A child's symptoms may not look exactly like those in another child. Observing your child and taking notes to share with teachers and doctors are good ways to find the best strategies and supports for your child. The signs of dyscalculia also look different at different ages. Dyscalculia tends to become more apparent as kids get older. But it can be detected as early as primary school (Sharma, 2015).

Types of Dyscalculia

Many authors explained dyscalculia by giving out the types. Sharma (2015) explains that there are three types as seen below:

Quantitative Dyscalculia: This is when there is a deficit in the skills of counting and calculating. The Dyscalculics pupil have a serious problem when using figures since counting is a problem. At times they have to meet another person for estimation when they need to use a huge amount of money.

Qualitative Dyscalculia: This is the result of difficulties in understanding of instructions or the failure to master the skills required for an operation. When a child has not mastered numerical facts, he cannot benefit from the stored information about the number that is used to solve problems involving addition, subtraction, multiplication, division and square roots.

Intermediate Dyscalculia: This involves the inability to operate with symbols or numbers. Once signs like <, >, t, -, x, ÷, √, appear on a paper, the individual dyscalculic is no longer comfortable. When the numbers are larger like 100,000,000 he or she will certainly need an assistance to manipulate or read it. When dyscalculia is as a result of destruction in the neurons, there will be an overlap of neuro-diversity of difficulties. So dyscalculics will equally have dyspraxia (a developmental disorder of the brain in childhood causing difficulty in activities requiring coordination and movement), and dyslexia (a general term for disorders that involve difficulty in learning to read or interpret words, letters, and other symbols, but that do not affect general intelligence) as seen in the figure below.

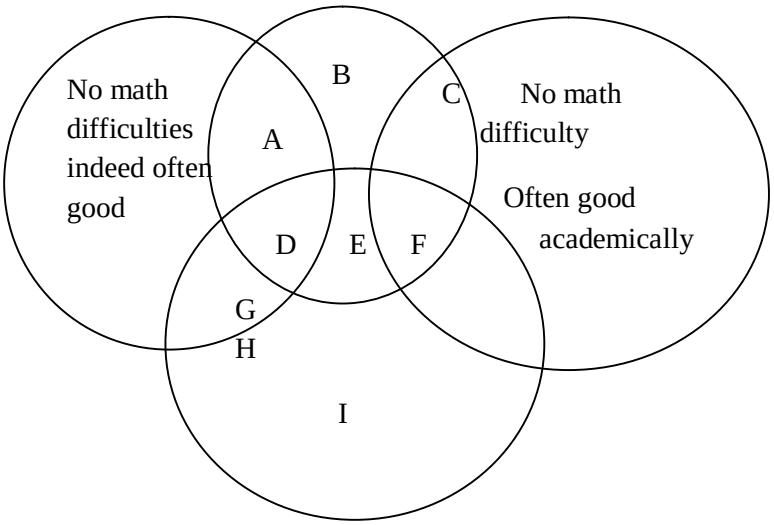

Figure 1: Neuro-diversity in dyscalculia
A = numerical techniques, arithmetic, sequences, linear, and thinking
B = understands number concept
C = drawing geometry, prepared pencil numerical calculation
D = Algebra, understanding numbers and arithmetic
E = reasoning, understanding numbers and using quantitative methods
F = Algebra, Arithmetic, geometry, estimation
G = integrating number with visual ideas, reasoning, moving from concrete to abstract
H = reasoning deductive thinking especially on paper, algebra.
I = analytical reasoning, algebra, higher mathematical ideas (Dyscalculia spectrum, 2006)

Kosc (1974) explains that dyscalculia is in six types;
Verbal dyscalculia: This is the problem in naming amount of things; difficulties with talking about mathematical concepts or relationships e.g. verbal dyscalculics may be able to read and write numbers, but unable to talk about them, remember their names, or recognize them when they are spoken by others.
Practognostic dyscalculia: This is the problems in manipulating things mathematically, for example comparing objects to see which one is bigger or larger. Dyscalculics have difficulties translating their abstract knowledge to real world actions or proceeding. They have difficulties working with actual quantities, volumes or equations in a practically way.
Lexical Dyscalculia: This is the problem of reading mathematical symbols including operational signs +, -, ÷ and numerals. When mathematical signs occur in number sentences or equations, lexical dyscalculics may be able to read individual digits, but unable to recall their place in larger numbers.
Graphic Dyscalculia: This is the Problem in writing mathematics symbols and numeral. They cannot shape the mathematical signs or symbols as they appear.
Indiagnostically dyscalculia: This is the problem in understanding mathematical concepts and relationship. Dyscalculics have difficulties in identifying which sequence of numbers is larger or smaller. This type of dyscalculia is a generalized difficulty with understanding mathematics and numbers as a whole. At times, it is described as inability to recall mathematical ideas or concepts after learning them.

Operational dyscalculia: This is the Problem in performing arithmetic operations and calculations. Operational dyscallculics have troubles to do any calculation that requires manipulating numbers and mathematics symbols.

Warning Signs in Primary school or Kindergarten

- Has trouble learning to count, especially when it comes to assigning a number to each object in a group.
- Has trouble recognizing number symbols, such as making the connection between "7" and the word *seven.*
- Struggles to connect a number to a real-life situation, such as knowing that "3" can apply to any group that has three things in it - 3 0ranges, 3 bananas, 3 kids, etc.
- Has trouble remembering numbers, and skips numbers when kids of the same age can count the numbers and remember them in the right order.
- Finds it hard to recognize patterns and sort items by size, shape or color.
- Avoids playing popular games that involve numbers, counting and other mathematics concepts.

Warning Signs in secondary School

- Has trouble recognizing numbers and symbols
- Has difficulty learning and recalling basic mathematics facts, such as - 2 + 4 = 2
- Struggles to identify +, – and other signs and use them correctly
- May still use fingers to count instead of using more sophisticated strategies
- Has trouble writing numerals clearly or putting them in the correct column
- Has trouble coming up with a plan to solve a mathematics problem
- Struggles to understand words related to mathematics, such as *greater than* and *less than*
- Has trouble telling his left from his right, and has a poor sense of direction
- Has difficulty remembering phone numbers and game scores
- Avoids playing games that involve number strategy
- Has trouble telling time

Warning Signs in High School

- Struggles to apply mathematics concepts to everyday life, including money matters such as estimating the total cost, making exact change and figuring out a tip.
- Has trouble measuring things, like ingredients in a simple recipe.
- Struggles with finding his way around and worries about getting lost.
- Has hard time grasping information shown on graphs or charts.
- Has trouble finding different approaches to the same mathematics problem.
- Lacks confidence in activities that require estimating speed and distance, such as playing sports and learning to drive (Flora, 2013; Henderson, 2012; Kaufmann, Liane, and Michael von Aster, 2012).

What skills are affected by dyscalculia?

Dyscalculia affects a child's ability to handle mathematics class and homework. Mathematics Skills and concepts are used everywhere from the kitchen to the playground to the workplace. It is understandable if you are concerned about the long-term impact of dyscalculia on your child's life. But once you identify your child's weaknesses, you can find ways to work around them by building on strengths. Here are some everyday skills and activities your child may find difficult:

- **Social skills:** Failing repeatedly in mathematics class can lead a child to assume failure is inevitable in other areas too. Low self-esteem can affect a child's willingness to make new friends or participate in afterschool activities. The child might also avoid playing games and sports that involve mathematics and keeping score.
- **Sense of direction:** A child might have trouble learning left from right. He may have trouble getting places by reading maps or following directions. Some kids with dyscalculia cannot picture things in their minds (concept mapping or mind mapping). If a child have trouble imagining how a building or other three-dimensional object would look if viewed from another angle, then he or she may worry about getting lost when changing classes, riding a bike or driving a car.
- **Physical coordination:** Dyscalculia can affect how the brain and eyes work together. So a child may have trouble judging distances between objects. He or she may seem clumsier than other kids of the same age.
- **Money management:** Dyscalculia can make it difficult to stick to a budget, balance a checkbook and estimate costs. It can also make it hard to calculate a tip and count exact change.
- **Time management:** Dyscalculia can affect a child's ability to measure quantities, including units of time. A child may have trouble estimating how long a minute is or keeping track of how much time has passed. This can make it hard to stick to a schedule.
- **Other skills:** A child may have trouble figuring out how much of an ingredient to use in a recipe. He or she might have a hard time estimating how fast another car is moving or how far away it is (Flora, 2013; Henderson, 2012; Kaufmann, Liane, and Michael von Aster, 2012).

Statement of the Problem

In Cameroon, many children are having trouble with mathematics at all levels of schooling. There is the need to find out what is going on so that stake holders can figure out how to help. Very few researches have been done on dyscalculia at the primary level in Cameroon. The problem of this study then is: What are the mathematical problems (dyscalculia) confronting primary school pupils in Buea Municipality?

Specific Research Questions

1. How does sequential counting affect primary school pupils' achievement in Buea municipality?
2. To what extent is the lack of confidence a mathematical problem in primary schools in Buea municipality?
3. How does computation of mathematical facts affect primary school pupils' achievement in Buea municipality?

Hypotheses

The hypotheses were tested at 0.05 level of significance using chi-square (χ^2) tests.

$Ho_{1:}$ Sequential counting has no significant effect on primary school pupils' achievement in Buea municipality.

$Ho_{2:}$ The lack of confidence is not a significant mathematical problem in primary schools in Buea municipality.

$Ho_{3:}$ The computation of mathematical facts has no significant effect on primary school pupils' achievement in Buea municipality.

Scope of the study

The study investigated mathematical problems (dyscalculia) affecting primary school level two pupils in computation, sequential counting, and lack of confidence. The study was carried out in Buea Municipality in the South West Region. The study involved Government School (G.S) Buea Town group I, Government School (G.S) Buea Town Group II, Government Practicing School (G.P.S) Molyko Group I and Government Practicing School (G.P.S), Ndongo. The choice of government primary schools is because they give a more representative picture of the social, economic, political, and religious diversities that we have in Buea Municipality and in Cameroon.

Research Design

This study used the survey design, precisely the sample survey was found appropriate in that it enabled the researcher to study a large population by making use of representatives of all the primary school pupils having mathematical problems (dyscalculia) and its impact on their achievement in Buea municipality.

Sample and Sampling Techniques

The sample consisted of 100 primary four pupils (48 males, 52 females) disproportionately drawn from G.S Buea Town group I, G.S Buea group II, G.P.S Molyko group I, and G.P.S Ndongo in Buea Municipality in the South West Region of Cameroon. The hypotheses were tested at 0.05 level of significance using chi-square (x^2) tests.

Instruments for the Study

A questionnaire was constructed for data collection. The questionnaire was divided into three sections; sequence counting, lack of confidence, and the computation of mathematical facts. The 4-point Likert scale was used (Strongly Agree, SA = 4; Agree, A = 3; Disagree, D = 2; and Strongly Disagree, SD = 1) for positively cued items and the reverse weightings for negatively cued items.

Methods of Data Analyses

Mean scores and standard deviations were used for analyzing data to provide answers for the research questions. The hypotheses were tested at 0.05 level of significance using chi-square (x^2) tests.

Results and Discussion

How does sequential counting affect primary school pupils' achievement in Buea municipality?

Ho_1: Sequential counting has no significant effect on primary school pupils' achievement in Buea municipality.

Table 1: Sequential Counting

S/N	Items	SA	A	D	SD	$\bar{x}$	s	Dec.	x^2	df
1	I face difficulties when counting backward.	51	16	5	28	2.90	1.30	A	46.64	3
2	I can follow the right steps in dancing during recreation in schools.	36	29	8	27	2.74	1.21	A	17.20	3
3	Counting orally is strenuous to me.	28	26	19	27	2.55	1.17	A	2.00	3
4	I can recall formulae easily when solving exercises in mathematics.	42	25	13	20	2.89	1.16	A	18.32	3
5	I can keep tract when counting.	47	32	12	9	3.17	.96	A	38.32	3
	Total / Average	**204**	**128**	**57**	**111**	**3.17**	**0.96**	**A**	**112.48**	**15**

$\bar{x}$ = mean score, **s** = standard deviation, **Dec.** = Decision, x^2 = Chi square **df** = Degree of freedom

The respondents opined that they face difficulties when counting backwards, that they can follow the right steps in dancing during recreation in school, that counting orally is strenuous to them; that they can recall formulae easily when solving exercises in mathematics; and that they can keep tract when counting. Conclusively, sequential counting greatly affect primary school pupils' achievement in Buea municipality ($\bar{x}$ = 3.17 ± 0.96). Since the calculated value (x^2 = 112.48) is greater than the table value (x^2 = 27.49) with df = 15 at $p \leq 0.05$ level of significance, we reject Ho_1 and state that sequential counting has significant effects on primary school pupils' achievement in Buea Municipality.

Hatton (2014) holds that students with difficulties in sequencing and organising detailed information often have difficulties remembering specific facts and formulas for completing mathematics calculations. Badian (1983) explained that dyscalculics exhibit difficulties in attention sequential counting as seen in multiplications tables and sequencing procedures. Badian added that learning of mathematic is so sequential but to successfully complete many mathematics problems a very strict sequence must be followed. In dyscalculics pupils, sequential memory is very limited and mathematics memory is too short to hold a complex chunk, which is why most of them cannot even keep track when counting 100 coin pieces.

To what extent is the lack of confidence a mathematical problem in primary schools in Buea municipality?

Ho_2: The lack of confidence is not a significant mathematical problem in primary schools in Buea municipality.

Table 2: Lack of Confidence

S/N	Items	SA	A	D	SD	$\bar{x}$	s	Dec.	x^2	df
1	I put up my hands to answer mathematics questions in class.	74	19	4	3	3.64	.70	A	134.48	3
2	I enjoy solving on the board in front of my mates.	56	22	13	9	3.25	1.00	A	54.80	3
3	I can tackle my mathematical exercises alone.	40	14	17	29	2.65	1.27	A	17.04	3
4	In group work I participate actively.	46	24	8	22	2.94	1.2	A	29.60	3
5	I panic at the sight of my mathematics teacher.	35	14	20	31	2.53	1.26	A	11.28	3
	Total / Average	**251**	**93**	**62**	**94**	**3.002**	**1.086**	**A**	**247.2**	**15**

$\bar{x}$ = mean score, **s** = standard deviation, **Dec.** = Decision, x^{2} = Chi square **df** = Degree of freedom

The respondent agreed that they put up their hands to answer mathematics questions in class; that they enjoy solving mathematical problems on the board in front of their mates; that they can tackle many mathematical exercises alone; that they actively participate in group work; and that they panic at the sight of their mathematics teacher when solving problems. Conclusively, the lack of confidence is a very great mathematical problem that may hamper pupils' achievement in primary schools in Buea municipality ($\bar{x}$ = 3.002 ± 1.086). Since the calculated value (x^2 = 247.2) is greater than the table value (x^2 = 27.49) with df = 15 at $p \leq 0.05$ level of significance, we reject Ho_2 and state that the lack of confidence is a significant mathematical problem in primary schools in Buea municipality.

The United Kingdom Department for Education and Skill (U.K. DES, 2001) sees dyscalculia as:

> A condition that affects the ability to acquire arithmetical skills. Dyscalculics learner may have difficulty understanding simple number concepts, lack an intuitive grasp of numbers, and have problems learning numbers facts and procedures. Even if they produce a correct answer or use a correct method they may do so mechanically and without confidence.

The issue of confidence or trust in one's self remains a very regretful issue to dsyscalculics. When they lack confidence they are prone to mistakes and at times fail even simple exercises they could do without stress. Dyscalculics lack confidence and practice avoidance strategies which are often manifested in their behaviour. Bandura (1986) holds that, self-efficacy is the most important thing that people need to accomplish in a task. This is because your self-esteem will boast your achievements whereas people who have low efficacy and low self-esteem are low achievers as well. This is because they hardly confront a challenge when it comes their way. You can never know what you can do except you try it.

How does computation of mathematical facts affect primary school pupils' achievement in Buea municipality?

Ho_3: The computation of mathematical facts has no significant effect on primary school pupils' achievement in Buea municipality.

Table 3: Computation of Mathematical facts

S/N	Items	SA	A	D	SD	$\bar{x}$	s	Dec.	x^2	df
1	There is no difference in the length and width of my class.	15	13	18	54	1.89	1.13	D	45.36	3
2	I have difficulties subtracting negative figures.	36	17	22	25	2.64	1.21	A	7.76	3
3	Multiplying decimals and fractions is a problem to me.	38	15	19	27	2.63	1.25	A	12.56	3
4	I cannot divide numbers by zero.	42	16	25	17	2.83	1.16	A	17.36	3
5	Reading mathematical signs like +,-, /, x disturbs me.	20	19	28	33	2.26	1.12	D	5.36	3
	Total / Average	**151**	**80**	**112**	**156**	**2.45**	**1.17**	**D**	**88.4**	**15**

$\bar{x}$ = mean score, **s** = standard deviation, **Dec.** = Decision, x^2 = Chi square **df** = Degree of freedom

The respondents were of the view that there is no difference in the length and width of their class which means that they have good mathematical knowledge of estimation; majority of the pupils have difficulties subtracting negative figures, in multiplying decimals and performing operations that involve fractions (BODMAS), and cannot divide numbers by zero; But stated that reading mathematical signs like +, -, /, x does not disturb them. Conclusively, computation of mathematical facts averagely affect primary school pupils' achievement in Buea Municipality ($\bar{x}$ = 2.45 ± 1.17). Since the calculated value (x^2 = 88.4) is greater than the table value (x^2 = 27.49) with df = 15 at p ≤ 0.05 level of significance, we reject Ho_3 and state that the computation of mathematical facts has an averagely significant effect on primary school pupils' achievement in Buea municipality.

According to Spinney (2009), the computation of mathematical facts continues to be a problem with dyscalculics pupils as they have weak, inexact numbers system. This is because in observing for instance two orange trees, it is the approximate number system that helps one to know which tree has got more oranges. So dyscalulics pupils may not know which tree has more oranges because with a strong approximate number system (ANS) you need not count before knowing that. Spinney also stated that dyscalculics pupils may find fractions and fractional operations very confusion: they may not understand that $^1/_2$ is greater than $^1/_{20}$ when previously they have learned that 20 is greater or bigger than 2.

Conclusion / Recommendations and the way forward

A child who has been identified with dyscalculia may be given extra time for tests or letting him or her use a calculator. Response to intervention (RTI) is a program some schools use to provide extra help to students who are falling behind. Such children receive small-group instruction either within or outside of their regular classroom. Informal supports are strategies teachers often use to help struggling students. The teacher should keep a journal of how the pupils respond to different strategies or mathematics-related activities. Parents and guardians should do the same at home and check notes. Some common strategies teachers use to help kids with dyscalculia are:

- Using concrete examples that connect mathematics to real life, to strengthen children's number sense. Examples: sorting buttons or other familiar objects.
- Using visual aids when solving problems, including drawing pictures or moving around physical objects - which teachers refer to as "manipulatives."
- Assigning manageable amounts of work so that the pupils would not feel overloaded.
- Reviewing a recently learned skill before moving on to a new one, and explaining how the skills are related.
- Supervising work and encouraging pupils to talk through the problem-solving process. This can help to make sure he or she is using the right mathematics rules and formulas.
- Breaking new lessons into smaller parts that easily show how different skills relate to the new concept. Teachers call this process "chunking."
- Letting your child use graph paper to help keep numbers lined up.
- Using an extra piece of paper to cover up most of what is on a mathematics test or text so that your child can focus on one problem at a time.
- Playing mathematics-related games designed to help children have fun and feel more comfortable with mathematics (Flora, 2013; Henderson, 2012; Kaufmann, Liane, and Michael von Aster, 2012).

Parenting a child with dyscalculia can be challenging, especially if you have never been confident in your own mathematics skills though one does not have to be a mathematics expert. Improving mathematics skills can strengthen a pupil's self-esteem and resilience but note that kids (and families) are all different. It takes trial and error to see what suits you and your child. Here are some things you can try at home:

- **Learn as much as you can.** Understanding the nature of dyscalculia is good first steps toward helping your child strengthen mathematics-related skills. Let your child know that you understand what he is going through-and that you do not think he is lazy, unmotivated or not smart. This can give him the encouragement he needs to keep working on that thorny mathematics problem. It may also reduce some of the anxiety or feelings of inferiority he may be experiencing.
- **Play mathematics games.** Practicing number concepts can improve skills and help reduce anxiety at school. Use household objects such as toys, grapes or pairs of socks as often as you can to help connect numbers to everyday activities. Try not to dwell on it or force these games on your child. That might make your child more anxious. Learning is easier when kids are happy and relaxed.
- **Create a homework station.** Help your child be more productive during homework time by carving out a space that has as few distractions as possible. You can also help your child by breaking assignments down in smaller, more manageable steps, such as doing five mathematics problems and then taking a break before working on the next five problems.
- **Cozy up with the calculator.** For kids who have trouble remembering basic mathematics facts, a calculator can help them focus on using reasoning and problem solving. These skills are highly valued in the workplace-where using a calculator is not considered cheating.
- **Boost confidence.** Identify your child's strengths and use them to work on (or work around) weaknesses. Activities that tap into your child's interests and abilities can help improve self-esteem and increase your child's resilience. Check out the behavior strategies written by a team of experts (class council) or class master. Try to pace yourself and do not use more than one strategy at a time. That makes it easier to tell which ones are producing good results.

- **Help your child keep track of time.** Whether it is a hand on the shoulder, a few key words or a cell phone alarm, have a system in place to remind your time-challenged child when to start the next activity.
- **See what it feels like.** Try to experience what it is like to have dyscalculia. Acknowledging that you understand what your child is going through is another way to boost his confidence.
- **Be upbeat.** Let your child know when you see him do something well. Praising effort and genuine achievement can help your child feel loved and supported. It can also give your child the confidence to work harder at building skills and help him stay motivated to try new things.

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