

Math Appeal

Developing the Love for Math

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Knowledge Channel

The 1st 15 years

- 15 years of:
 - Reaching More: 4M+/year, 4K Schools
 - Teaching More: Supplemental Learning, Interest
 - Commitment in making learners the best that they can be
- Through:
 - Media Assets
 - Training
 - Partnerships

Knowledge Channel

The 1st 15 years

- Measure the impact of the efforts in order to:
 - Monitor more effectively the results
 - Encourage participation for the nation building advocacy
- Plan:
 - Focus on the subject that will have most impact on our countries' continued overall development

Mathematics: A Gateway for National Progress

- A country's economic progress relies heavily on its progress in science and engineering, this demands a strong foundation in Mathematics (Pascua, Ogena and Tan 2006)
- Mathematics is a tool for intelligent participation in a technological society (FAPE 1988)

Mathematics:

The need at the Individual Level

- Facilitating participation in productive life activities
- Helping make sense of the world
- Means of communication

Macro Problems

- Large class sizes
- Lack of quality textbooks
- Lack of physical space for learning (classrooms, labs)
- Lack of qualified teachers
- Lack of learning time

The Fear of Math in the Philippines

As an academic subject, Math is perhaps the most feared of all, not only by students, but also by instructors who fail to master even basic concepts.

International and local surveys consistently reveal low scores for our country in mathematics and science.

- The Third International Mathematics and Science Study in 1995, the most comprehensive such study so far, ranked the Philippines at third from the bottom in eighth-grade mathematics, one rank lower than it had ranked in science.

The Fear of Math in the Philippines

To curb the alarming trend, much research in the last decade focused on the myriad of causes of our lack of formal mathematical knowledge and skills.

The causes range:

- from pedagogical factors (incompetent teachers, deficient curricula) to social ones (unmotivated students, stereotype of nerds)
- from economic factors (poverty, “brain drain”) to familial ones (absent parents, poor study habits)

Mathematics Framework for Philippine Basic Education

- Project of DOST Science Educational Institute
Philippine Council of Mathematics Teacher Education
Inc. 2005-2008
- Contains resources that will help curriculum
developers, teachers, school administrators and policy
makers to design and implement mathematics curricula
that empowers students “to learn to learn” and cause
them to better understand mathematics in their
everyday life.
- Vision: Scientifically, Technologically, Environmentally
Literate and Productive Individuals through Quality
Mathematics Education

Declarations

1. Being mathematically competent means more than having the ability to compute and perform algorithms and mathematical equations
2. The physical and social dimension of a mathematical environment contributes to one's success in learning mathematics
3. Mathematics is best learned when students are actively involved
4. A deep understanding of mathematics requires a variety of learning tools
5. Assessment in mathematics must be valued for the sake of knowing what and how students learn or fail to learn mathematics
6. Students attitudes and beliefs about mathematics affect their learning
7. Mathematics learning needs the support of both parents and other community groups

The framework has been in existence since 2006...

- In 2014, DOST established Science Teacher Academy for the Regions (STAR)
 - the project seeks to provide an organized scheme of innovative trainings in science, technology, engineering and mathematics
- Is there still a need for a stronger and more far-reaching boost to address the mission to improve math, a mission that ABS-CBN and Knowledge Channel could fulfill?

Questions

- Who do we want to help?
- How do we want to help?
- Why are we the best people /organizations to help?

Objectives

- Love for Math
- Superior Math Learning Outcomes

(A working title that needs to be changed)

PROJECT MATH APPEAL

Strategies to improve math performance

1. Develop content and platforms that will turn Filipinos fear into love and interest for Math
2. Enhance Teachers Relational (conceptual + procedural) understanding and teaching of math
 - Strengthen teacher's Technological and Pedagogical Content Knowledge (TPCK)
3. Develop and implement learner-centered activities
 - Content, activities and materials

1. Develop content and platforms that will turn Filipinos fear into love and interest for Math
3. Develop and implement learner-centered activities
Content, activities and materials

Students attitudes and beliefs about mathematics affect their learning	Making the relevance of Math in our daily lives interesting and understandable <ul style="list-style-type: none"> •Numbers •CSI
Mathematics is best learned when students are actively involved	Making Math Friendly like Sesame Street's The Count Math Camps, Math Contests
A deep understanding of mathematics requires a variety of learning tools	Math through visuals and manipulatives
Mathematics learning needs the support of both parents and other community groups	Development of a Math Revolution

Math Visuals and Manipulatives

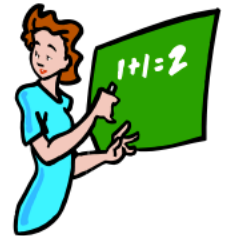


2. Teacher Training

- Start with teachers
- Teach them Principles of Math
- Let them discover the Philosophy of teaching math
- Train them on Pedagogy
 - Content is a means for higher order thinking skills
 - Its not just about the content but also about the process
 - Use of Media and Technology
- Leads to a deeper understanding of Math

INTRODUCTION

Teaching is both an art and a science. Have you ever thought about what makes an effective mathematics teacher? Try to recall the teachers who influenced your life. What made them stand out?



An effective mathematics teacher reflectively integrates theory with practice. Why? Because it is the theories about teaching and learning that provide a framework for analyzing learning situations and improving classroom instruction.

To develop one's philosophical framework for teaching mathematics, we begin by understanding the nature of mathematics and the goals of mathematics education. Research has shown that the teachers' beliefs and conceptions influence the way they teach mathematics and the way their students perceive the discipline. Hence, this lesson aims to clarify these beliefs and conceptions, and to enrich or modify them, if necessary.

Workplan

	2015	2016	2017	2018	2019
MMLR & Session Guides					
Grade 4	20	56			
Grade 5		75			
Grade 6			80		
Access	13 Schools 39 Packages	257 Schools 771 Packages	270 Schools 810 Packages	270 Schools 810 Packages	
Training	Oct: 39 Teachers	Mar – May 771 Teachers	Mar – May 810 Teachers	Mar – May 810 Teachers	
Mentoring	Dec	Quarterly	Quarterly	Quarterly	
Monitoring and Evaluation		Jan Division Test KCh Summative Test Grade 4 Aug, Oct Division Test Grade 4	Mar KCh Summative Test Jan, Mar Division Test KCh Summative Test Grade 4 Aug, Oct Division Test Gr 5	Mar KCh Summative Test Jan, Mar Division Test KCh Summative Test Grade 5 Aug, Oct Division Test Gr 6	Jan, Mar Division Test Grade 6 Mar KCh Summative Test NAT Gr 6

Knowledge Channel Foundation

Making Education Interesting and Accessible to all

- Because every Filipino deserves to dream big and have an equal chance to fulfill his dreams
- Bridging the gap to quality education especially in public schools

Thank You