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MAP Newsletter

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From The Editor's Desk

The year 2004 brings winds of change for MAP! Sikunder Ali Baber the current chairperson departs for his doctoral studies. On behalf of MAP to I want to congratulate him on securing this doctoral scholarship. This is a great honor indeed, and one that he deserved! Today MAP is a strong association doing valuable work in the field of mathematics education. To a great extent this has been due to the sustained input, hard work, and energy put into MAP by Sikunder Ali Baber. I would like to sincerely thank him for his work and hope that we would continue to have his support.

Congratulations to Sardar Ahmad Khan and Abid Sohail on becoming the new coordinators of MAP. We are confident that MAP will benefit from their long experience of teaching mathematics at a variety of levels and of working as teacher educators in the area of mathematics. From MAP, I extend my support and a warm welcome!

Mathematics stands as the key to success in this increasingly technological world. **What can we do to improve mathematics education?** This is a question that is very close to all of us who are engaged with MAP. It is in pursuit of improving mathematics education that MAP offers a range of activities. Under the new leadership of Sardar and Abid we continue with the Saturday workshops and also offer some new programmes and events. Do give us your feedback on how you find these activities.

Anjum Halai

MATHEMATICS THROUGH INTERESTING GAME (by Sardar Ahmed Khan)

Here is a game, which could helps children to understand the concept of addition of decimal numbers and develop estimation skills. Before playing this game, children should be explained the rules of addition and explained how to estimate. Children can play this game in pairs. Now play this game and introduce this game in your classroom. You are invited to share your own mathematical games in MAP newsletter.

15.2	10.6	0.4	26.2	7.05	41.9	58.99
60.87	22.4	34.43	16	27	99.9	18.03
47.7	81.3	0.091	66.6	0.87	0.45	0.1
37.6	59.2	5.86	9.14	73.2	6.41	3.27

RULES FOR GAME:

- Choose two numbers from the box above. These numbers could be chosen vertically or horizontally or diagonally. Add these two numbers.
- Cover the numbers with counters.
- In which box will you find your answer? (See below)
- Keep score of your points.
- The game lasts until all numbers have been covered.
- The same number may not be used twice.

0-----20 :1 Point	20-----40: 2 Points	40-----60: 3 Points	60-----80: 2 Points	80-----100: 1 Point

Challenges and Learning Opportunities involved in the Professional Development of Mathematics Teachers within the Government Sector

Sardar Ahmed Khan & Nadeem Asghar Kirmani

To enable the professional development of mathematics teachers in the government sector, we have worked for the last seven years as Professional Development Teachers (PDTs). Our experience, as PDTs suggest that working in the government sectors is a difficult but not an impossible task. Government system faces varied challenges to tackle the professional development needs of teachers. In there, the most important one is the capacity of the professional staff to undertake this mammoth job. Second, there is a strong need to change the perceptions of policy makers to consider the professional development as a continuum rather than just as an event. This requires a strong support structure to conduct the professional development activities in an ongoing manner. c

As Professional Development Teachers we feel that engaging in the programmes offered by the government sector, for example, Girls Primary Education Development Project (GPEDP), Middle School Project (MSP) and City District Government Training (CDGT) enhanced our understanding about the selection of appropriate activities to address the needs of the participants. It was our first commitment for the government sector as PDTs. Keeping in mind this situation, we did not insist on our ideas rather we started working according to the instructions provided to us. As time passed we suggested some innovative ideas related to teachers' development, for example, activity based teaching, use of low/no cost material in mathematics classroom, problem solving and Do-Talk-Record strategies. It was very encouraging for us that the officials in these programmes started thinking about incorporating our ideas related to professional development of the teachers. This example showed that we could not achieve our goals at once. We have to wait for appropriate time, we have to talk and convince other people with our positive attitude.

Another important fact, which we have realized during this process, was about attitudes of teachers from government sector. It was our predetermined thinking that these teachers are rigid and it would be very difficult to work with them in order to challenge their existing attitudes and teaching methods. But it was surprising for us that they started revisiting their attitudes and beliefs from day one. They were ready to accept new

ideas and realized that there is a need to bring changes in their existing teaching practices. They were curious and motivated towards change. It showed that it is unfair to pass judgments about these teachers without working with them.

The participants of these workshops were from government schools, where medium of instruction is Urdu, but we have prepared handouts and other material in English language, which in our opinion was not fair. Realizing the fact, we planned to provide Urdu translation as well, but it created problem of money. It would be better if we prepare handouts and other material in Urdu, in this way the money problem was not appeared. As teacher educator, we have to think about the context from where the participants are coming.

It was participants thinking about new teaching methods that these are time consuming and we have not enough time to complete our topics through activity based teaching, realizing the fact we decided to deliver demonstration lessons by using mathematics resources, which helped them to realize that it would be possible if time management is appropriate. We think that as teacher educator we have to provide practical examples to support what we are saying.

Note: *Sardar Ahmed Khan and Nadeem Kirmani have a long experience of teaching mathematics in the government schools. Currently they are working as PDTs in the Government sector.*

Web Bytes from the NCTM New Bulletin, June 2003

1. Lessonplanz.com is a searchable directory of free online lesson plans and lesson plan resources for all grades.
2. GameTheory.com offers resources for a college level audience including lecture notes, textbook reviews, games and quizzes
3. Mathematics in daily life applies mathematics and the language of numbers to everyday decision-making situations for high school and college students www.learner.org./exhibits/dailymath
4. 10th International Congress on Mathematics Education is being held in July (4th – 7th)at Copenhagen, Denmark. For more information on this conference visit http://www.icme-10.dk
5. Trends in International Mathematics and Science Study (TIMSS): nces.ed.gov/timss TIMSS provides international comparisons of student achievement in mathematics and science, as well as comparisons of teaching practices and curricula.
6. Explore Your Knowledge" **nces.ed.gov**/nceskids/eyk/index.asp?flash=true Mathematics and science items from TIMSS , formatted so students in grades 4 and 8 can test themselves and compare their responses with those of students in Other countries.

MATHEMATICS ASSOCIATION OF PAKISTAN (MAP)
Regular Monthly Saturday Workshops
January to December 2004

Date	Topic	Who Can Attend?
January 3	Theorems	Open for all
February 7	Graphs and their meaning	Open for all
March 6	Problems posing & solving in mathematics at primary level	Open for all
April 3	Fractions	Open for all
May 1	Trigonometry	Open for all
June 5	Mathematics & Chemistry	Open for all
July 3	MAP 7th Anniversary Workshops for parents: How to deal with children's Math Problems at Home?	Open for Parents and all
August 7	Statistics	Open for all
September 4	5th Math Olympiad	Open for Students
October 2	Net Designing Related to Math Geometrical Shapes	Open for all
November 6	ICT & Mathematics	Open for all
December 4	Ratio & Proportion (Reasoning in Business)	Open for all

MAP Summer Workshop

This will be organized in the month of June 2004. Expected number of the participants will be 30. Pre-registration is now open for all members. Further details regarding the topics and duration of the workshops will be available in the last week of April at the MAP office (Ph. # 6347611 Ext. 3174). Suggestions for the topics of summer workshop are welcome

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