Teaching Vedic Math to Non-Traditional Audiences

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ABSTRACT

This paper will be an expansion of a paper presented on-line to a group of Vedic Math (VM) practitioners. Over the last 30 years, I have taught and held workshops for many different types of groups interested in learning VM. The groups have run the gamut from elementary school students to PhD candidates, parents, teachers and the elderly, unemployed individuals needing better math skills to obtain jobs, prison inmates in a correctional institution and to the deaf. It is the experiences that I had with the last two groups that I will be discussing today.

This paper will concentrate on the special approaches I needed to utilize and results that were achieved with the prison inmates and the deaf. I found these experiences quite a bit different from all of my other teaching engagements and feel they would have value to all VM teachers now and in the future.

By way of introduction, my name is Rick Blum and I have been a Pension Actuary all of my adult life. For the last 30+ years, I also have been a Vedic Math (VM) teacher. During this time, I have taught VM to students in elementary school through post graduate PhD candidates. In addition, I have taught classes in a prison, demonstrated Vedic Math to the deaf and introduced VM to seniors. The primary purpose of this paper today is to describe my experiences teaching VM to the deaf and to prisoners.

I have always felt that the ability to learn and apply VM techniques is universal. It doesn't matter whether an individual is young or old, good at math, poor at math, they like math or hate math. VM can improve their ability to think clearly, enhance their self-confidence and improve their self-esteem. Upon being asked to teach prisoners in a correctional institution, I felt that this would be an excellent way of testing whether this "universal appeal" was true.

Never having been in a prison, when I arrived, I was a little unnerved. The prison had tall fences with razor wire on the top. All of the guards carried guns and rifles and I was searched before entering the compound. I was also given an electronic devise to put in my pocket in case I felt I was in danger. They told me that if I pressed the button on the device, there would be a dozen guards sent to where I was teaching with weapons within 15 seconds. This was definitely not going to be the standard teaching venue I was used to. The groups of prisoners that I was to teach were actually considered "teachers," each of whom had the responsibility of helping 6 – 8 other prisoners to obtain a high school equivalency diploma. The prison had a library where we were going to hold the class. There were approximately 25 individuals attending the workshop. The workshop was to run from 8:30 AM to 11:30 AM with 10 minutes off each hour.

Honestly, I was nervous when I started, but, this nervousness quickly faded. Looking past the prison uniforms and the armed guards in the room, this turned out to be a fairly intelligent and likeable group of individuals.

I have always found that every individual has certain inherent needs. These include wanting to be able to perform certain tasks better than anyone else, perform faster than anyone else and to be admired by others for these abilities. Vedic Math fulfills these needs in short order. Being able to perform mathematical calculations faster than anyone else almost immediately got their continued attention.

I have a good friend that does Social Work in the prison and she told me not to do certain things in front of this group. For example, whenever anyone gives a correct answer in one of my classes, I ask that everyone applaud. She cautioned me against doing this because of certain "prison cliques" that might exist with one group not wanting to clap for the other. Of course, I ignored this and everything turned out fine. In short, I did everything that she told me not to do and it all turned out fine.

With the exception of two individuals, all of the attendees sat in front and on the side of me. There were two individuals that were sitting separate from the rest of the group. These two "students" looked pretty hardcore with tattooed forearms the size of my head. I bring up these two individuals for a reason. I was explaining 2 by 2 vertically and crosswise multiplication when one of them raised his hand and asked if this technique would work when multiplying 3 numbers by 3 numbers. I explained that this was the next topic I was going to cover. After showing each technique, I would give the students a handout with some problems to practice. Once they could apply the technique correctly, I would ask for a volunteer to come up to the blackboard and do a problem in front of the other students. While everyone was working on their practice problems, I walked back to where my two outcasts were sitting, bent over their desk, looked the questioner in the eye and said to him – when I finish explaining 3 by 3 multiplication and ask for a volunteer, you're going to be the volunteer so listen up. As I walked back to the front of the room, I thought what a stupid thing to do. In any event, as I finished explaining the 3 by 3 technique and while I was still facing the board, I asked for a volunteer to come up and do a problem. As I turned around, my "buddy" was already walking towards the board. I wrote a problem on the board and asked him to explain each step. To my utter amazement, he not only got the problem correct, but, explained the process incredibly well. Everyone clapped, he went back to his seat and I took my finger off the emergency button in my pocket.

At the 50 minute mark of each hour, the guards would ask the group if they needed a 10 minute break. No one wanted to take a break. In fact, the class ran for 3½ hours straight without a pause. One of the supervisors that were present said that in over 25 years he had not seen a group of prisoners sit for 3½ hours, without a break, for any reason. At the end of the class, most of them came up to me and thanked me being there and teaching them techniques that would help them through many hours of boredom they have to endure while being imprisoned.

At the end of the class, I had covered vertically and crosswise multiplication, the start of Vedic division and a small amount of Vedic subtraction. Everyone had a great time, including me, and most importantly they learned. It showed me that Vedic Math had a "universal appeal" even for a group like this.

As I indicated previously, I have taught many diverse groups. All of these groups did have something in common. They were able to hear what I was explaining. I was approached by an

organization in my town that provides services to the deaf and asked if I could do a couple of workshops. Never having taught the deaf, I realized that this would present certain challenges.

I was to teach two workshops over a weekend. For each class, I had an "interpreter" who would use sign language while I was explaining. My first class on Saturday was composed of about 12 people, most of whom were either couples or families. I like to keep things as light as possible during my workshops so I tend to inject humor wherever I can. It occurred to me that a joke that is translated into sign language might not have the same impact as when you are hearing it directly so I restricted my humorous remarks. The thing that was most disconcerting for me was when I would speak to the class; nobody's eyes were on me. Everyone's attention was on the translator. For many deaf individuals, training in mathematics is sorely lacking. Therefore, I wanted to go as slowly as possible. I started with Vedic addition and worked my way up to 3 by 3 vertically and crosswise multiplication.

Doing the course of this first class, I was explaining 2 by 2 multiplication, and I noticed that there was a family composed of a mother, father and two daughters. The two daughters were picking the techniques up pretty well, but, their parents weren't getting it. One daughter started explaining the technique to her father and the other went through it with her mother. I had given the group a set of problems to work on and was watching to see how this family was going to make out. It was a beautiful thing to see. Both sets of parents, with their children's help, finally understood the technique. They all had big smiles on their faces which made me feel that something important had been accomplished here. Aside from understanding the Vedic technique, I think that it brought the family closer together. As all of you listening have already seen, learning (and teaching VM) has a multitude of side benefits too numerous to mention.

By the end of this class, I actually picked up some signing techniques which I tried to include when I explained something. I felt that they appreciated the fact that I was trying to communicate with them using sign language.

The second class on Sunday had grown to about 20 including some from the prior day who wanted a refresher. Having the experience of the first class the day before, I knew a little more of what to expect. Again, there were not only individuals, but, couples and entire families. I didn't call anyone up to the board to do a problem the day before, but, I figured that I would with this group. I did this several times with the results being as good as they could have been. I wasn't sure about asking them to clap if someone gave a correct answer. I then realized that it was not so much the sound of the clapping, but, the action itself that made a person feel elevated. Each time someone did a problem correctly, they put a big smile of their face while watching everyone clap for them. This literally might have been the first time in their lives that they had been applauded for anything they had done. Again, another side benefit of VM. Their self-esteem and feeling of self-worth increased tremendously.

I have found that when teaching groups of older people who have had a life-long hated of mathematics beginning when they were children, something wonderful happens. Through the simplicity of VM, their hated of mathematics that they have had is suddenly mitigated, in some cases, to a very great degree. These feelings of inadequacy are especially great for a person with a severe hearing impediment all of their lives. Certain basic intellectual skills such as the

ability to understand and work with numbers seemed to be lacking in many of these individuals. Showing them VM was like lifting open a heavy door that they had been behind all of their lives. Not to sound melodramatic, but, the emotional response for themselves and their children was very apparent. At the end of the class, everyone was smiling, feeling good and wanting to learn more. As an aside, to further demonstrate the emotional impact learning VM can have, I want to mention what happened while I was recently teaching a group of senior citizens. At a recent class, after I demonstrated the Vertically and Crosswise sutra, one of the ladies in the class started to cry. This was a bit unsettling for me believing that I made a 70 year old women burst into tears. All I could think of doing was to apologize for whatever she thought I said to set her off. As it turned out, these were tears of joy. She realized for the first time in her life that she wasn't stupid. All of her life she was made to feel this way because, at a young age, she stopped understanding math and was made to feel inadequate all of her years because of it. She was always embarrassed by her lack of ability in math. She now realized that she could now only do math, but, do it at a very high level. This emotional catharsis had a very dramatic impact on her.

Over the years, I have found that most VM teachers seem to concentrate their efforts on younger and older students. I don't have a problem with this as there is a great need for the dissemination of VM to these groups. I would stress strongly though, that there is an equal if not greater need for teaching non-traditional groups as well. When I teach VM, I would like to feel like I have succeeded in transmitting what Tirthaji had his highest hopes for if:

1. I have removed some of the fear persons have for mathematics and making them better at calculations, but,

2. Much more importantly, effect a positive change in a person's life by elevating their self-confidence, self-esteem and self-worth.

I view VM as not only a system of mathematics, but, as a conveyance to take people to a better place in their lives.