

The Mathematics Enthusiast

Volume 7
Number 2 *Numbers 2 & 3*

Article 1

7-2010

So many journals, So many words... So what?

Bharath Sriraman

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Recommended Citation

Sriraman, Bharath (2010) "So many journals, So many words... So what?," *The Mathematics Enthusiast*: Vol. 7 : No. 2 , Article 1.

Available at: <https://scholarworks.umt.edu/tme/vol7/iss2/1>

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**So many journals,
So many words...
So what?**

Bharath Sriraman

As I was putting the finishing touches to this journal issue, my 6-year old posed the following question, who reads all this stuff, Dad? It was a simple question that merited an answer that was not pedantic but understandable to someone viewing the whole enterprise of publishing with innocent eyes. This in turn led me to ponder over publishing which characterizes academia and the culture of many academic institutions. The ensuing dialogue proceeded as follows:

Do you like doing math in school?

Yes, it is fun and also easy. I like big numbers...Once in the school bus I counted up to 400.

Why 400?

I had to get off. We can also go up to infinity, or infinity plus one and infinity plus two

That's good. All these pages are about math and also about making it fun and easy for those that think it is hard

It's a lot of pages

Sometimes I wonder about how many pages have been written in all and if anyone reads anything

How many?

That is a really good question. I will think of a way to make an estimate

A million?

I don't know...it is frightening to think about this!

The question is wide open for the field. How many pages per year of mathematics education related writing is published each year? More precisely, how many mathematics education "research results" are published each year? This is somewhat analogous to the question and estimate of Stanislaw Ulam about the number of results/theorems in mathematics that were produced each year [His estimate was approximately 100,000 back in the 1970's]. More importantly, what proportion of this mathematical drivel (regardless of whether it is pure or applied) is meaningful, mutates and survives, as opposed to perishing in esoteric and dusty journal collections in libraries? To answer this question, as Davis & Hersh (1981) pointed out, one would have to set up a filter to sieve out what is important as opposed to technical gobbledygook, and the experts in the field would have to impose a value judgment on what is a significant result as opposed to yet another clever proof to an old problem or another glorified lemma. Such a Darwinian view might seem alarming to the reader and trivialize what we do, but the fact of the matter is that we as a field have seen a geometric increase in the number of outlets for mathematics education research and practice. We have research journals, practitioner journals, hybrid journals (such as *The Montana Mathematics Enthusiast*) that engage in ideas in mathematics as well as mathematics education, and expository journals such as *The Mathematical Intelligencer*, *The Mathematical Gazette* and others that make mathematics accessible to the lay audience. All this is in addition to conference proceedings, symposium proceedings, edited books in different book series, Handbooks of all sorts, and last but not least the steady output in masters theses and doctoral dissertations! I have been kind enough not to include grant proposals, textbooks and other teacher related material that is produced anew each year.

A related question in the eco-conscious times that we live would be: What is the carbon footprint of mathematics education as a field? Is the whole enterprise of supporting the lumber and paper pulp industry, as well as publishing houses resulting in *anything* at all? What do I mean by "anything?" Those looking into the field of mathematics education typically associate "anything" with change of some sort- either curricular change, change in achievement scores, change in teachers, change in students, change in the number of students entering STEM fields, change in minority achievement,

change in status of a country on international comparison tests, and “change” typically implies something measurable or something that can be quantified. Indeed mathematics (education) has even become a status symbol in some countries. In December 2001, after the results of PISA 2000 became public, a left leaning periodical in Germany called *Der Spiegel* had a front cover that stated: **Sind deutsche Schüler doof?**¹, which translates to “Are German students stupid?”. This rhetorical question was based on the poor performance of German students on the PISA test and the erroneous notion of “national pride” being lost on account of a test! There are similar (not necessarily more sensitively worded) headlines in other parts of the world related to other international comparisons tests such as *Finland finishes first, Singapore students are the best, Icelandic girls outperform boys....*and so on. Politicians and policy makers are very quick to jump on the voter cache of such alarming proclamations, and national funding bodies follow *en suite* (pun intended) by providing grants for “changing” curriculum, comparative studies, new “innovative” teacher education programs, professional development etc. This in turn leads many researchers in our field to jump on the funding wagon for the sake of institutional prestige, professional monikers, and engage in all kinds of projects, which I won’t bother to list, and this neatly feeds into the publishing outlets I alluded to earlier. The cycle of student measurement on tests, blaming schools and teachers, and research related to all this continues unabated contributing to the well being of the publishing industry of which we are all a part of. A lot of this criticism is self directed since the journal is a tiny cog in the giant academic-publishing industry. Perhaps we need to re-examine or re-state the questions we are asking in the first place?

Is it really the burden of our field (here I mean mathematics education) to initiate “anything”, i.e., so many changes, many of which are of significant social magnitude? I do not see geography or biology or art burdened with such expectations. To this many will give their glib arguments about the centrality and significance of mathematics, and how it is essential/applicable to other fields, in order to lend credence to their own enterprises. I do not agree with such utilitarian claims. The discipline is beautiful and significant in its own right but it assumes a life of its own when Society, Institutions and policy makers start ascribing pure objectivity to it as well as use it as a sieve to justify decision making and stratification of society through high stakes examinations. If there is any change that occurs at all, it ought to occur locally, within the minds of a student exposed to the subject, to perhaps experience insight, meaning? If this is the “basic” purpose as some put it, I suggest looking up the number of pages produced each year on answering the search for meaning...we as a field pale in comparison to output of the “search for meaning” industry. Our carbon footprint is insignificant to the self-help industry!

The journal publishes articles that are considered stimulating from a mathematical viewpoint, i.e., they are expository enough for teachers and undergraduate/beginning graduate university students to read and understand. They also tend to be eclectic, i.e., presenting mathematics in new contexts. Some articles deal with the historical development of mathematical ideas and some pieces tackle sociological issues that are related to teaching and learning, hopefully provocative from an educational viewpoint. Finally meaning cannot be derived nor imparted without an understanding of factors that impede or facilitate learning, which relates to the psychology of mathematics education. At the end of the day, the journal hopes that the articles stimulate readers to become more enthusiastic about mathematics, realize its presence in different contexts as well as become aware of the sociological issues surrounding its teaching and learning. If the journal results in enacting the reader’s sense of agency and promoting enthusiasm, activism or even an aesthetic, then we have achieved more than we set out to do. I am particularly pleased with the collection of articles that constitute vol7, nos2&3.

References

- Davis, P., & Hersh, R., (1981). *The Mathematical Experience*. Birkhäuser, Boston.
 Winfried, S. (2007). *Wer ist Alexander Grothendieck? Anarchie, Mathematik, Spiritualität – eine Biographie*. Havixbeck.

¹ <http://www.spiegel.de/schulspiegel/0,1518,172357,00.html>