

Report on Venue Study
Department of Mathematics Education
2008

Background

We sent questionnaires to 49 colleagues across the country asking them to place each of 22 venues into one of three categories: (1) the set of most prominent and influential venues in the field, (2) other strong refereed venues; or (3) other refereed venues. Both the venues and the names of these colleagues were solicited from faculty members. We received 36 responses from the 49 requests we sent out, and another 9 responses from other colleagues with whom the questionnaire was shared, for a total of 45 responses. We recorded the number of 1's, 2's, and 3's each journal received, as well as the number of responses for each journal (some were left blank if, for example, the respondent was not familiar with the journal). The table below gives the mean, median, and mode for each journal, as well as the number of non-blank responses (a 45 indicates everyone rated that journal, whereas a 35 indicates that 10 respondents left it blank).

Venue	Mean	Median	Mode	Count
Journal for Research in Mathematics Education	1	1	1	45
Educational Studies in Mathematics	1.122222222	1	1	45
Journal of Mathematics Teacher Education	1.255813953	1	1	43
Mathematical Thinking and Learning	1.342857143	1	1	35
Journal of Mathematical Behavior	1.5	1	1	43
For the Learning of Mathematics	1.926829268	2	2	41
Mathematics Education Research Journal	1.962962963	2	2	27
International Journal of Math Education in Science and Technology	2.115384615	2	2	26
Research in Mathematics Education	2.125	2	2	16
Mathematics Teacher	2.26744186	2	2	43
International Journal of Science and Mathematics Education	2.28	2	2	25
Mathematics Teaching in the Middle School	2.290697674	2	2	43
Teaching Children Mathematics	2.290697674	2	2	43
FOCUS on Learning Problems in Mathematics	2.3	2	2	40
School Science and Mathematics	2.409090909	2	2	44
Mathematics Teacher Education and Development	2.464285714	2.25	2	14
Proceedings of PME	2.659090909	3	3	44
Proceedings of PME-NA	2.744186047	3	3	43
Contemporary Issues in Technology and Teacher Education	2.75	3	3	12
PRIMUS	2.791666667	3	3	24
The Montana Mathematics Enthusiast	2.826086957	3	3	23
The Mathematics Educator (University of Georgia)	2.939393939	3	3	33

The responses fall naturally into three categories, according to whether (1) the median and mode were both 1 and the mean rounded to 1; (2) the median and mode were both 2 (or nearly 2) and the mean rounded to 2; and (3) the median and mode were both 3 and the mean rounded to 3.

These findings suggest the following preliminary three-tiered classification:

Tier 1:

Journal for Research in Mathematics Education
 Educational Studies in Mathematics
 Journal of Mathematics Teacher Education
 Mathematical Thinking and Learning
 Journal of Mathematical Behavior

Tier 2:

For the Learning of Mathematics
 Mathematics Education Research Journal
 International Journal of Math Education in Science and Technology
 Research in Mathematics Education
 Mathematics Teacher
 International Journal of Science and Mathematics Education
 FOCUS on Learning Problems in Mathematics
 Mathematics Teaching in the Middle School
 Teaching Children Mathematics
 School Science and Mathematics
 Mathematics Teacher Education and Development

Tier 3:

Proceedings of PME
 Proceedings of PME-NA
 Contemporary Issues in Technology and Teacher Education
 PRIMUS (Problems, Resources, Issues in Undergraduate Mathematics Studies)
 The Montana Mathematics Enthusiast
 The Mathematics Educator (University of Georgia)

Triangulation

There are three other sources to which we can turn to obtain journal rankings. The first is the small journal citations study we completed last summer. The second is a journal citation study undertaken by Tommy Dreyfus as editor of *Educational Studies in Mathematics*. The third is a larger study undertaken by The Centre for the Study of Research Training and Impact at The University of Newcastle in Australia. Each of these can be used to triangulate our main study and give some added insights.

BYU Citation Study. We tallied the citations in each substantive article (e.g not including book reviews, editorials, etc.) published from 2005 - 2007 in each of 11 mathematics education journals. We also counted citations to PME and PMENA proceedings and to each of the three NCTM practitioner journals. Ignoring self-citations (that is, for example, citations to JRME that appear in articles published in JRME), we came up with the following totals:

Venue

Citations

Journal for Research in Mathematics Education	799
Educational Studies in Mathematics	631
Proceedings of PME	449
For the Learning of Mathematics	275
Journal of Mathematical Behavior	220
Proceedings of PME-NA	148
Mathematical Thinking and Learning	118
Journal of Mathematics Teacher Education	99
Mathematics Teacher	92
Teaching Children Mathematics (Arithmetic Teacher)	88
FOCUS on Learning Problems in Mathematics	75
Mathematics Education Research Journal	69
School Science and Mathematics	55
Int'l Jnl of Math Education in Science and Technology	53
Mathematics Teaching in the Middle School	42
Mathematics Teacher Education and Development	12

Among the conclusions from these data are that: (1) all five of the journals in our preliminary Tier 1 above appear in the top half of this list; (2) the bottom half of this list contains only journals from our preliminary Tier 2; (3) *For the Learning of Mathematics* appears relatively high in this list; (4) PME and PMENA proceedings, though not considered strong in our main venue study, are nevertheless often cited; and (5) *JRME* and *ESM* appear at the top of the list, substantially above the other journals.

Dreyfus Citation Study. The Dreyfus study tallied citations to a wider range of journals, but from a narrower range of journals, than did our study. Like our study, it also used a three year period. Again ignoring self-citations, the results of the Dreyfus citation study were:

Journal	Citations
Journal for Research in Mathematics Education	324
Educational Studies in Mathematics	297
For the Learning of Mathematics	151
Journal of Mathematical Behavior	114
Recherches en Didactique des Mathématiques	98
Mathematical Thinking and Learning	64
Arithmetic Teacher/Teaching Children Mathematics	58
Mathematics Teacher	51
International Journal of Computers for Mathematical Learning	46
Journal of Mathematics Teacher Education	41
Focus on Learning Problems in Mathematics	39
Zentralblatt für Didaktik der Mathematik	29
Int'l Journal of Math Education in Science and Technology	26
Mathematics Education Research Journal	24

Among the conclusions from these data are that (1) four of our five preliminary Tier 1 journals appear at the top of this list; (2) *For the Learning of Mathematics* again appears among these Tier 1 journals in this ranking; (3) *JRME* and *ESM* once again appear at the top of the list, substantially above the other journals.

The Newcastle Study. The Centre for the Study of Research Training and Impact at the University of Newcastle, in conjunction with the Australian Association for Research in Education undertook the task of developing esteem measures for education journals, based on the collective wisdom of the profession, especially education researchers. They solicited opinions from 752 experts in the field, mainly from Australia, New Zealand, and the UK, and computed an *Esteem Score* and a *Quality Score*. The Quality Score combines the Esteem score with Impact factor (which is not available for most mathematics education journals) and the presence or absence of an international editorial board. The Esteem Scores are reported here, since they are more comparable with the ratings from our main venue study.

(Details are available at: <http://www.newcastle.edu.au/centre/sorti/Banding/mehtod.html>)

Journal	Score	
Journal for Research in Mathematics Education	19.45	
Mathematics Education Research Journal	18.75	
Educational Studies in Mathematics	18.28	
For the Learning of Mathematics	16.02	
Journal of Mathematical Behavior	15.72	
Mathematics Teacher Education & Development	15.25	
Journal of Mathematics Teacher Education	15.07	
International J. of Science & Mathematics Education	14.55	
Mathematical Thinking & Learning	14.51	
Australian Primary Mathematics Classroom	13.87	Among top 10%
Teaching Children Mathematics	13.63	
International J. for Mathematics Teaching & Learning	13.38	
International J. of Math Education in Sci & Tech	13.11	
Focus on Learning Problems in Mathematics	12.2	Among top 20%
School Science & Mathematics	11.3	
J. of Statistics Education	10.04	
International J. for Tech in Math Education	9.44	
Hiroshima J. of Mathematics Education	8.75	
International J. of Computers for Mathematical Learning	6.19	
J. of Computers in Mathematics & Science Teaching	6.19	

Among the conclusions from these data are that (1) together with three journals from Australia and Taiwan, our five preliminary Tier 1 journals also appear at the top of this list; (2) *For the Learning of Mathematics* again appears among these Tier 1 journals in this ranking; (3) *JRME* and *ESM* once again appear at the top of the list, although not quite so decisively.

It is worth noting that in this study mathematics education journals compared very favorably with education journals in general. For example, those with scores above 13.87, which includes all of our Tier 1 journals, are among the top 10% of all journals in the study.

Summary and Recommendations for Mathematics Education Journals

Overall, the preliminary division suggested above of mathematics education journals into three tiers is fairly consistent with the other ranking studies. Moreover, the fact that our main venue study tapped into the opinion and expertise of the population from which reviewers will be drawn for rank and status decisions suggests that we take its results quite seriously.

However, the appearance of *For the Learning of Mathematics* near the top of other rankings suggests we consider including it in the top tier as well. Also, the strength of *JRME* and *ESM* and of the *PME* and *PMENA* proceedings relative to others in their tier suggest we may want to afford them some special status. A revised classification, then, might look something like the following (the order of listing within each tier is not meant to be significant).

Status	Journal Name
Tier 1	Journal for Research in Mathematics Education*
	Educational Studies in Mathematics*
	Journal of Mathematics Teacher Education
	Mathematical Thinking and Learning
	Journal of Mathematical Behavior
Tier 2	For the Learning of Mathematics
	Mathematics Education Research Journal
	International Journal of Math Education in Science and Technology
	Research in Mathematics Education
	International Journal of Science and Mathematics Education
	FOCUS on Learning Problems in Mathematics
	Mathematics Teacher Education and Development
	School Science and Mathematics
Mathematics Teaching in the Middle School [†]	
Tier 3	Teaching Children Mathematics [†]
	Mathematics Teacher [†]
	Proceedings of PME [‡]
	Proceedings of PME-NA [‡]
	Contemporary Issues in Technology and Teacher Education
	PRIMUS
The Montana Mathematics Enthusiast	
The Mathematics Educator (University of Georgia)	

*Clearly the top journals in the field.

[†] Practitioner journals, but still well respected.

[‡] Although Tier 3 venues, these are cited at a rate consistent with some Tier 1 venues.

Other Journals

In our main venue study, we asked respondents to provide the names of any journals from categories 1, 2, or 3 that we did not mention. The following table gives those other journals.

Category 1:

# of times mentioned	Journal
12	Cognition and Instruction
11	American Educational Research Journal
7	Educational Researcher, Journal of the Learning Sciences
4	Review of Educational Research, Elementary School Journal
3	Cognitive Science, Educational Evaluation and Policy Analysis
1	Journal of Educational Psychology, Harvard Education Review, Teachers College Record, Curriculum Inquiry, American Journal of Education, ICMI studies, Teaching and Teacher Education, Journal of Teacher Education

Category 2:

# of times mentioned	Journal
3	Research in Collegiate Mathematics Education, Elementary School Journals, Teaching and Teacher Education
2	Journal of Teacher Education, ZDM
1	NCTM Yearbooks, ICME Proceedings

Category 3:

# of times mentioned	Journal
1	The Canadian Journal of Science, Mathematics, and Technology Education, Educational Leadership, Phi Delta Kappan, AMTE Monograph

Recommendations:

There are other resources to help you decide the quality of journals not specifically addressed in our venue study. The Newcastle Study, whose results are available at the Website <http://www.newcastle.edu.au/centre/sorti/Banding/mehtod.html>, is one resource. Another is the Social Science Citation Index Journal Citation Reports, available electronically through the Harold B, Lee Library.