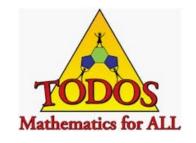
Teaching for Excellence and Equity in Mathematics



Teachers' information session for potential *TEEM* players (writers or reviewers)

Presented/facilitated by TEEM editors (teem@todos-math.org), editorial panelists, and authors

slides (already uploaded to conference app/website)

updated by Larry Lesser from his 2013 TODOS Live webinar which can be viewed TODOS' *TEEM* page

Which of these apply to you?

- I want to learn about *TEEM*'s review process (as a possible reviewer and/or author)
- I want to learn what it takes to write for TEEM
- I hope to find potential (K-12 or university)
 collaborators at this conference
- I have ideas I'd like feedback on at this workshop
- I don't have article ideas yet, but am looking forward to this workshop sparking some!

abstract

TODOS' national peer-reviewed journal *TEEM* (*Teaching for Excellence and Equity in Mathematics;* http://www.todos-math.org/teem) seeks more contributions from teachers and this session especially targets teachers with insights and activities worth sharing (every teacher has them) beyond their school but who may lack experience putting it into publishable form. Researchers and those considering doing an occasional review of an submitted article are also welcome.

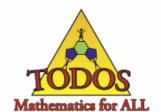
TEEM Associate Editor Larry Lesser will overview identifying a topic, forming collaborations, searching the literature, organizing a paper's sections, and navigating the submission-review-revision trajectory. Then, attendees will have a chance for in-person real-time feedback in small groups from TEEM Editor Marta Civil and Editorial Board members, so start brainstorming ideas and bring 'em to the table. We'll be TEEMing with enthusiasm!

Hot off the press!

Vol. 9, No. 1 Spring 2018 ISSN 2153-0173 online

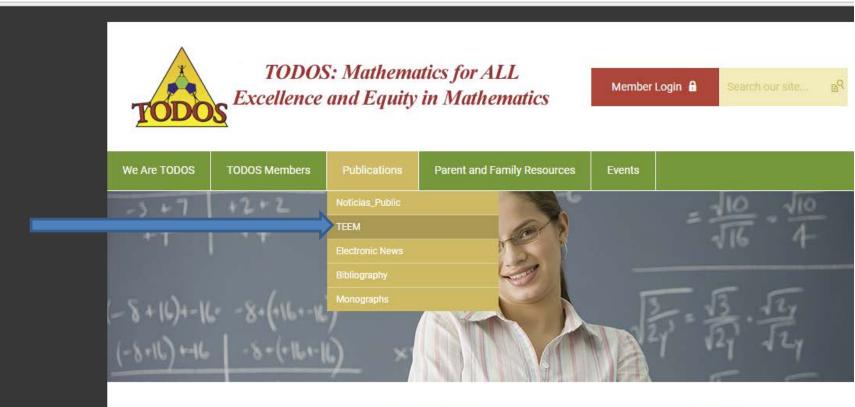
a copy of *TEEM* 9 should be in your conference bag!

TEACHING FOR EXCELLENCE AND EQUITY IN MATHEMATICS



TODOS' *TEEM* page has issues & information

www.todos-math.org



TODOS 2018 Conference

It's ALL about ALL Students Learning Quality Mathematics:

Advocating for Equity and Social Justice

Register now!



full-time HS teacher for 2 years

- full-time HS teacher for 2 years
- I've published a lot as a university professor

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- I've published a lot as a university professor
- I've been a TODOS member since 2004

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- I've twice had work rejected by TEEM

Quick history of *TEEM*

- 2003: founding of TODOS: Mathematics for ALL
- 2008: refereed journal proposed to TODOS Board by founding co-editors (Lesser, Anhalt, Leiva)
- 2009: issue #1 released with by papers from *Noticias* internally selected and adapted for *TEEM*; external review process set for future issues; issues published in subsequent years except 2014
- 2011: issues made available to all (except that only TODOS members can see current issue); Editorial Panel created to help collect and synthesize external referee reports
- 2012: additional call for papers written by and for classroom teachers and/or teacher educators
- 2013: TODOS LIVE Webinar about TEEM
- 2016: first "special issue" (math ed through social justice lens); first workshop (TODOS Conference)

Reviewing for TEEM: How

- To **join** the referee pool, just **email teem@todos-math.org** (1) name, affiliation, and contact information, (2) grade levels of teaching or research experience, (3) areas of interest/expertise
- You're asked to do only 1 review/year and can let us know if a conflict of interest, schedule, or background would keep you from doing it within 3-6 weeks
- The author will never know which referees reviewed his/her paper
- To guide and structure the process, you'll be given a **form**

TEEM Referee Reviewer form

1. From your perspective, briefly describe the main	purpose of the article.
---	--------------------------------

- 2. Choose one of the 4 options for your overall recommendation for the article:
 accept as is (well-written and great fit with the TEEM and TODOS mission)
 accept under the condition that the author makes some (minor) changes (this
 will be overseen by the editors without further review by external referees)
 reject, but encourage the author to submit a revision that will go through the
 refereeing process again
 reject and do not encourage the author to submit a revision
- 3. Briefly state your reasons for the recommendation you gave in #2. Your reason should refer to **overall aspects of the paper** (such as the attributes in item #4). Be sure to indicate the article's key strengths and weaknesses (with an indication of if you think the weaknesses can be "fixed" if a revision were submitted).

TEEM Referee Reviewer form (cont.)

- 4. For each criterion, check 1 of the 5 ratings (very poor, poor, fair, good, very good):
- Fit with TODOS mission
- Overall quality of writing
- Usefulness to teachers
- Integration of equity and excellence
- Originality of this contribution to the education field/community
- 5. In #3, you gave overall feedback about the paper now give more **detailed feedback about the paper that will be useful for the author to consider** in making a revision. It will be easiest if you give feedback in the order that the sections appear in the paper. Also, please be sure to note anything about the content (e.g., math content, references, etc.) that you noticed was incomplete, incorrect, misleading, offensive, or otherwise inappropriate.
- 6. Any further **feedback for the editor** to see (use an additional page if you need to):

Reviewing for TEEM: Why

(general importance of reviews: see editorials in Nov. 2003 and Nov. 2009 issues of *Journal for Research in Mathematics Education*)

- Reviews improve the papers by noting how or where the paper could be more specific, rigorous, consistent, practical, clear, inclusive, etc.
- Valuable service to *TEEM*, TODOS, & profession
- You get fame/credit (e.g., p. 30 of 2011 issue)
- Valuable experience and a way to keep up with new ideas (though you can't yet cite/share them)
- You get insight into what *TEEM* reviewers/editors look for that gives you more confidence when you write your own article!

Writing for *TEEM*: Why

- You learn/improve by writing about your work
- Helps others learn best new ideas and make them accessible to future generations
- It can enhance your teaching portfolio (or tenure dossier) to have an article in *TEEM*, a refereed journal cited by other respected journals
- TEEM Editors can often give more hands-on help than most journals do

Writing for *TEEM*: Why

It can enhance your teaching portfolio (or tenure dossier) to have an article in *TEEM*, a refereed journal cited by other respected journals

/scholar.google.com/scholar?hl=en&as_sdt=0%2C44&g=chval+pinnow&btnG= chval pinnow About 91 results (0.04 sec) [CITATION] Preservice teachers' assumptions about Latino/a English language learners KB Chval, R Pinnow - Journal of Teaching for Excellence and Equity in ..., 2010 ☆ 99 Cited by 19 Related articles Learning how to focus on language while teaching mathematics to English language learners: A case study of Courtney KB Chval, RJ Pinnow, A Thomas - Mathematics Education Research ..., 2015 - Springer Abstract Research in mathematics education increasingly recognizes the role of language in the education of English language learners. However, research examining the professional growth of mathematics teachers as they learn to teach English language learners is sparse ... ☆ ∇∇ Cited by 11 Related articles All 5 versions Web of Science: 4 "How much You wanna bet?": Examining the role of positioning in the development of L2 learner interactional competencies in the content classroom RJ Pinnow, KB Chval - Linguistics and Education, 2015 - Elsevier Abstract This paper examines the role of positioning in the development of interactional competence of a Latino English Learner in a third grade mathematics classroom. Data is drawn from a three-year longitudinal study that examined the role of interaction in language ... ☆ 切り Cited by 7 Related articles All 3 versions Web of Science: 3

[CITATION] Positioning ELLs to develop academic, communicative, and social

competences in mathematics
R Pinnow, KB Chval - The CCSS in mathematics for grades k-8, 2014
☆ ワワ Cited by 6 Related articles

Writing for *TEEM*: How

(adapted and excerpted from TEEM call for papers)

To make sure every issue of *TEEM* offers something valuable not just to scholars but also to teachers, we have also launched a call for papers specifically written by and for a **classroom teacher and/or teacher educator**. The content could be one of the following:

- classroom-tested, TODOS/TEEM-oriented "excellence and equity" activity
 with a camera-ready worksheet for classroom use, similar to
 NCTM's Mathematics Teacher, Mathematics Teaching in the Middle
 School, and Teaching Children Mathematics
- a description, discussion and reflection on what happened while trying to implement a particular strategy or recommendation from the "excellence and equity" research literature (from a previous issue of *TEEM*, or another publication or source)
- an article that focuses on some aspect of the TODOS mission and goals

Or you might consider an article involving....

scholarship of teaching and learning, action/classroom research, or discipline-based education research

Writing for *TEEM*: How

Identify question or intervention that's important to you (and others)

- •Reflection on puzzling/intriguing/inspiring class experiences
- •2 common types: "what works", "what is"
- •Area/theme → *specific* questions

How a question might get more researchable:

- Should we use technology in teaching?
- Does technology improve student learning?
- Do dynamic applets improve student learning of statistics?
- Do dynamic applets improve student understanding of measures of center, as measured by performance on class exam?
- Do dynamic applets improve college students' understanding of measures of center, as measured by a concept inventory?

Choose a method that supports your RQ!

- 1.) Did group A perform better than group B on a test of content knowledge?
- 2.) What is a student thinking as she solves a problem involving X?
- 3.) Do student attitudes improve when using pedagogical technique Y?
- 4.) Why do students enjoy pedagogical technique Y?
- 5.) Does using technique Y improve student learning?
- 6.) How does using technique Y improve student learning?
- 7.) Do students participate more after experiencing pedagogical technique Y?

QUANTITATIVE methods: survey, experiment, quasi-experiment QUALITATIVE methods: descriptive, case study, observation, interview, focus group

Why Search the Literature?

- Build on prior work
- Contextualize your question
- Don't reinvent wheel, or study something already saturated with studies
- Ideas for variations
- Ideas for collaborators or related disciplines

How can you search literature?

- Identify keywords from your Research Question
- Use those keywords when you search:

http://scholar.google.com,

http://eric.ed.gov/?advanced,

as well as a library's many databases such as Academic Search Complete, & Education Full Text, etc.

To see what you can draw from, cite, and add value to, search recent papers in Google Scholar ...

/scholar.google.com/scholar?hl=en&q=teaching+fractions+to+bilingual+learners&btnG=&as_sdt=

e			
teaching fractions to bilingual learners	~	Q	

About 8,650 results (0.06 sec)

Bilingual classroom studies and community analysis: Some recent trends

LC Moll - Educational researcher, 1992 - edr.sagepub.com
... her classroom in an attempt to integrate home and school knowledge around an academic activity. ...
abil- ity to read and produce more sophisticated writing to ac- complish those activities. ... She also
understood that teaching through the community, as represented by the people in ...
Cited by 605 Related articles All 8 versions Cite Save More

12 Making inequality: Issues of language and meanings in mathematics **teaching** with Hispanic students

LL Khisty - New directions for equity in mathematics education, 1995 - books.google.com ... why" manzanas" is used in place of five," nor of the cognitive relevance of this **activity** to the ... Most important, we should ask questions about our **teacher**-training policies and **activities** and how they affect ... Why is it not enough to assume that good **teaching** is simply good **teaching** ... Cited by 207 Related articles Cite Save

[PDF] A naturalistic look at language factors in mathematics teaching in bilingual classrooms

LL Khisty - Proceedings of the third National Research ..., 1993 - ncela.ed.gov ... Language is such an inherent part of human **activity** that it is easy to take it ... of this nature provides new insights and raises new questions regarding the **teaching** and learning ... First, what are **bilingual teachers**' knowledge and abilities in **explaining** mathematics in their student's ... Cited by 26 Related articles All 2 versions Cite Save More

[PDF] Culturally relevant mathematics teaching in a Mexican American context

E Gutstein, P Lipman, P Hernandez... - Journal for Research in ..., 1997 - JSTOR ... He observed and par-ticipated in classes, helped **teachers** plan **lessons**, team taught, and worked with chil- dren ... Our data were drawn from our field notes of classroom observations and participation in classroom **activities**. ... 720 Culturally Relevant Mathematics **Teaching** ... Cited by 252 Related articles All 9 versions Web of Science: 37 Cite Save More

[PDF] Effective instruction for language minority students: The teacher

EE Garcia - The Journal of Education, 1991 - JSTOR
... 3. After eliciting a **lesson**, **teachers** encouraged students to take control of the discourse by inviting fellow ... structure their day so that students work on group and in- dividual **activities** (eg, graphing ... enced, not novices to **teaching** or to the instruction of language minority stu- dents. ... Cited by 86 Related articles Cite Save

...and in ERIC:

ERIC

PUBLICATION DATE

Higher Education

Elementary Secondary

In 2016

Collection **Thesaurus**

teaching fractions to bilingual learner

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Peer reviewed only

549

4060

3902

■ Full text available on ERIC

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Notes FAQ Contact Us

Bridging the Gap: Fraction Understanding Is Central to Mathematics Achievement in Students from Three **Different Continents**

Torbeyns, Joke; Schneider, Michael; Xin, Ziqiang; Siegler, Robert S. - Grantee Submission, 2015

T Peer reviewed Numerical understanding and arithmetic skills are easier to acquire for whole numbers than fractions. The "integrated theory of numerical development" posits that, in addition to these differences, whole numbers and fractions also have important commonalities. In both, students need to learn how to interpret number symbols in terms of...

Descriptors: Mathematical Concepts, Comprehension, Arithmetic, Numeracy

Unpacking Referent Units in Fraction Operations

Philipp, Randolph A.; Hawthorne, Casey - Teaching Children Mathematics, 2015

Although fraction operations are procedurally straightforward, they are complex, because they require learners to conceptualize different units and view quantities in multiple ways. Prospective secondary school teachers sometimes provide an algebraic explanation for inverting and multiplying when dividing fractions. That authors of this article...

Peer reviewed

Direct link

Descriptors: Mathematics Instruction, Teaching Methods, Mathematical Concepts, Secondary School Teachers

Using Explicit C-R-A Instruction to Teach Fraction Word Problem Solving to Low-Performing Asian English Learners

Kim, Sun A.; Wang, Peishi; Michaels, Craig A. - Reading & Writing Quarterly, 2015

This article investigates the effects of fraction word problem-solving instruction involving explicit teaching of the concrete-representational-abstract sequence with culturally relevant teaching examples for 3 low-performing Asian immigrant English learners who spoke a language other than English at home. We used a multiple probe design

Peer reviewed Direct link

Since 2015 2264 8181 Since 2012 (last 5 years) 15776 Since 2007 (last 10 years) 22525 Since 1997 (last 20 years) DESCRIPTOR Teaching Methods 16804 Foreign Countries 8428 English (Second Language) 7393 Second Language Learning 7253 5464 Second Language Instruction

Education Student Attitudes 3291 Learner Engagement 3058 Educational Technology 2793 More ▼

SOURCE ProQuest LLC 1188 English Language Teaching 596

Data Collection Considerations

- Operationalize variables ("learning", "enjoyment", "engagement", etc.)
- Any standardized/validated instruments (e.g., in Mental Measurements Yearbook with Tests in Print or PsycINFO)? if not, make & pilot one!
- Plan timeline of collection
- IRB approval may be needed (e.g., if you aim for disseminating generalizable knowledge) – your university or school district should have an office to provide guidance
- funding needed?

Writing for *TEEM*: How

- remember TEEM's broad audience of math educators, practitioners, leaders, and administrators at all levels (not everyone is a scholar, teacher, activist, bilingual, etc.): give explanations and/or references for specialized terms
- Send a "query email" to *TEEM* (teem@todos-math.org) if you want feedback on the idea/topic/approach itself
- Browse past issues, author guidelines, and mission of *TEEM*to see if your idea for a paper is consistent
 with the style and scope of *TEEM*;
 - it may fit another journal even better

TODOS mission:

"To advocate for equity and high quality mathematics education for all students – in particular, Latina/o students."

(http://www.todos-math.org/mission-goals)

from TEEM Call for Papers

http://www.todos-math.org/teem

The intended audience of **TEEM** includes math educators, practitioners, leaders, and administrators at all levels. The journal aims especially to engage mathematics education topics involving excellence and equity simultaneously (rather than either in isolation) in a way that connects research to classroom practice and can directly inform the practice of teachers or professional developers.

To this end, articles are welcomed that relate to:

- (1) all students learning mathematics that is effective and appropriate for them, on and beyond grade level expectations, beyond computational abilities, as problem solvers,
- (2) a vision or example of what this looks like in the K-12 classroom (or courses for pre-service or in-service teachers), or
- (3) attention to the roles that language and culture (in a broad sense) have in teaching and learning.

The journal defines equity broadly, including (but not limited to) issues of language, gender, ethnicity, and culture. **TEEM** welcomes addressing issues of language, culture, access, equity, and quality from diverse viewpoints: teachers, teacherleaders, administrators, professional developers, teacher preparation faculty, etc.

Writing for *TEEM*: parts of a paper

- Abstract (a 100-word summary)
- DARE (<u>Discussion And Reflection Enhancement</u>) Pre-Reading Questions, usually 2-4
- Bio (50 words per author)
- Acknowledgments (if any)
- BODY OF THE PAPER
- References (in APA style)
- DARE Post-Reading Questions, usually 4-8
- Appendices (if any)

TEEM's Double-Blind Peer-Review Process

- Author emails submission to <u>teem@todos-math.org</u>
- Editor verifies submission is complete, blinded, and aligned with TODOS mission before assigning paper a manuscript number
- Editor sends paper (and email addresses of 3 suitable external referees) to an Editorial Panelist
- Panelist gathers and synthesizes referee reviews
- Editor finalizes decision and notifies Author

Writing for *TEEM*: submission process

- Proofread paper (spelling, grammar, jargon, clarity, flow, etc.)
- Remove identifying information from paper

describe the setting or participants in a way that offers insight but does not reveal names of your school/city/participants; make sure the manner or frequency with which you cite your own work does not reveal your identity by taking into account how much your submitted article explicitly or exclusively depends on that prior reference.

If you are still unsure how to handle a particular item with this issue, feel free to call it to our attention and we can suggest a solution before we send it out for review.

clear the file's "Author" field under Properties so that there is no "metadata" associated with the file that names an author or institution; make sure Track Changes has been fully accepted, with comments deleted, and with the tracking showing "Final" as you turn off Track Changes.

- Fill out "Author's Disclosure Statement" (from TEEM webpage)
- Obtain written permission from the appropriate party if your paper includes items such as copyrighted images, large excerpts, or student work/photo which shows a student's face or name.
- Send email to <u>teem@todos-math.org</u> whose body includes author bio, acknowledgments, title of paper, contact information of each author; attach to the email the "Author's Disclosure Statement" and a .doc file with the (blinded) paper

APA (American Psychological Association) style

WHY? Template to organize paper can avoid writer's block, consistent and complete citations are considerate of reader, etc. Journals ensure this by requiring a particular *style* (how you say your content) and APA style happens to be the style most used in our field's journals.

HOW? There's a paperback (APA, 2010) of the 6th edition of APA style, but rules for common situations can be readily found online (e.g., http://www.apastyle.org or the Purdue OWL site) or inferred from *TEEM* papers. Some sites (e.g., http://citationmachine.net/) put your citations in the right form.

Writing for *TEEM*: revision process

- It's the most common result, so don't take it personally! It's just an
 opportunity to help your paper reach its full potential.
- As you prepare the revision, feel free to ask the Editor for clarification if you feel part of the feedback is unclear or contradictory.
- When you submit the revision, you need to attach a separate file that
 makes clear how and where reviewer feedback has been addressed.
 Depending on the number/extent of the changes, this could be done by
 including
- ☐ a Track Changes version of the paper with changes indicated, OR
- □ a 2-column table with each reviewer suggestion on the left and the corresponding change (or justification of why it was not changed) in the right column of that row.

excerpt of such a 2-column table

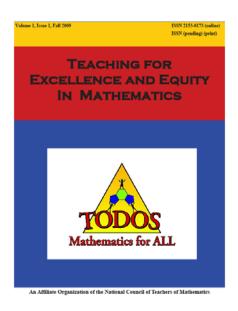
Reviewer #1 Comment	Author Response
This is not a Mixed Methods Design research	Data came from the same university. Additional
study. First, it appears the quant and qual	data from the quantitative part came from a
components came from two different	community college in the same region.
populations. The quant component was from a	
large urban research university OR large	
community college system in a large	Since this was sequential, the qualitative
Southwestern urban area. The gual component	component took place later and they were no
was exclusively from a large research university in	longer eligible to participate.
the Southwest region, which appears to be	
completely different. Populations from the quant	
component should have had equal opportunity to participate in the qual component. And in a	
sequential MMD study, the supplemental	
component intentionally follows the core	
component. Therefore, the statement the	
components were conducted independently with	
a delay between the two phases indicates again a	Speak about triangulation of data and researcher.
lack of understanding for MMD. It is also stated	Speak about triangulation of data and researcher.
"the triangulation of qualitative and quantitative	
data," but it was not clearly explained how the	
triangulation was conducted. The impression is	
this is a quantitative study with qualitative	
conducted as an afterthought. There is little	
connection between the two components.	

Reviewer #2 Comment	Author Response
I am curious: Why didn't the authors collect data by a class test, for example, as part of a midterm so that more sincere responses were possible from the participants? Any reason?	Thank you and good question! We were not able to coordinate due to the fact that they were located at various campuses with the various faculty teaching these classes to have these questions embedded in a midterm. Would have been nice!
Page 5 line 8: Typo in the citation year for Johnson and Onwuegbuzie (2005)? It's correct in the reference list.	Thanks and done.
Page 6 line 38: Could you provide more details	Yes, we added the following: "A principal

Post-submission communication with Editor

- Editor generally communicates with corresponding author who submitted paper
- If you don't get confirmation of receipt in a week or a decision within 2-3 months, it's okay to check in
- After layout of accepted paper, Editor sends you a galley to proofread (in a timely manner) for errors
- When issue is published at TODOS website, you typically get sent a pdf of paper, a congratulatory letter, and (later) a free print copy of the issue from the limited print run usually done

Sharing Your Work through *TEEM* is Rewarding





Framing Equity: Helping Students "Play the Game" and "Change the Game"

Rochelle Gutiérrez

Abstract

This article introduces a framework for equity that entails the dimensions of Access, Achievement, Identity, and Power. Beyond knowledge and skills, teachers need an "equity stance" that embraces and works to balance the tensions between these four dimensions.

Discussion And Reflection Enhancement (DARE) Pre-Reading questions:

- How do people in your working context define equity and what words do they
 use to discuss it?
- 2. How do you define equity and how do you know you are addressing it in your everyday practice?

"DARE" Post-Reading questions appear at the end of the article. This article (without DARE questions) originally appeared in Spring 2008 Noticias de TODOS.

Rochelle Gutiérrez (rg1@illinois.edu) is an Associate Professor at the University of Illinois at Urbana-Champaign, and her research focuses on equity in mathematics education, race/class/language issues in teaching and learning, effective teacher communities, and social justice.

Okay, let's dive in!

In small groups (1 per *TEEM* person) or as whole group, share ideas/outline for a paper & get live feedback!

And after today, contact the terrific *TEEM* team at:

teem@todos-math.org

