## Accepted Manuscript

Title: Post-normal science and mathematics education in uncertain times: educating future citizens for extended peer communities

Authors: Kjellrun Hiis Hauge, Richard Barwell

PII: S0016-3287(17)30048-4

DOI: http://dx.doi.org/doi:10.1016/j.futures.2016.11.013

Reference: JFTR 2196

To appear in:

Received date: 31-8-2015 Revised date: 19-11-2016 Accepted date: 21-11-2016

Please cite this article as: Kjellrun Hiis Hauge, Richard Barwell, Post-normal science and mathematics education in uncertain times: educating future citizens for extended peer communities, Futures http://dx.doi.org/10.1016/j.futures.2016.11.013

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



## ACCEPTED MANUSCRIPT

# Post-normal science and mathematics education in uncertain times: educating future citizens for extended peer communities

Authors:

Kjellrun Hiis Hauge

Bergen University College Faculty of Education P.O. 7030 N-5020 Bergen, Norway Phone: +47 55 58 59 67

Email: khh@hib.no

#### Richard Barwell

University of Ottawa
Faculty of Education
145, Jean-Jacques-Lussier Private
Ottawa, Ontario
K1N 6N5 Canada
Phone: +01 613-562-5804

Phone: +01 613-562-5804 Fax: +01 613-562-5963

Email: richard.barwell@uOttawa.ca

## Highlights

- A common idea of critical mathematics education and of post-normal science is that the uncertainty and values embedded in technology require critical citizenship
- Critical mathematics education and post-normal science are complementary in that the former discusses how to prepare students for contributing to extended peer-reviews
- In general, schools today do not prepare students for critical citizenship
- A cooperation between the two academic fields may benefit post-normal science in that conditions for contributing to extended peer-reviews can be better understood, and in that ideas from post-normal science can be promoted in education
- Post-normal science can help develop critical mathematics education through ideas and concepts to describe and understand post-normal situations and how to cope with such situations
- Uncertainty concepts from post-normal science are useful for developing classroom activities and research on these
- Uncertainty concepts from post-normal science are challenging when applied on classroom studies because the use requires decisions on borders between them. In principle this breaks with the idea of post-normal science, since the borders may give the appearance of having been determined "objectively"

### Download English Version:

# https://daneshyari.com/en/article/5109080

Download Persian Version:

https://daneshyari.com/article/5109080

<u>Daneshyari.com</u>