# PROMOTION RECOMMENDATION The University of Michigan-Dearborn College of Arts, Sciences, and Letters Department of Mathematics and Statistics

Nesrin Cengiz-Phillips, assistant professor of mathematics education, Department of Mathematics and Statistics, College of Arts, Sciences, and Letters, is recommended for promotion to associate professor of mathematics, with tenure, Department of Mathematics and Statistics, College of Arts, Sciences, and Letters.

## Academic Degrees:

Ph.D. 2007

Western Michigan University (Mathematics Education), Kalamazoo, MI

B.S. 1998

Middle East Technical University (Mathematics), Ankara, Turkey

### Professional Record:

2007 - Present

Assistant Professor of Mathematics Education, Department of

Mathematics and Statistics, University of Michigan-Dearborn

2004 - 2007

Doctoral Fellow, Center for the Study of Mathematics Curriculum,

Western Michigan University

### Summary of Evaluation:

<u>Teaching:</u> Professor Cengiz's teaching is rated excellent. Curriculum development is a key activity in mathematics education: Professor Cengiz has been a key member of the team developing and revising the curriculum of the critical elementary mathematics education sequence *Mathematics for Elementary Teachers I, II, and III,* and in *Methods of Teaching Mathematics K-8*. True to her published research, these developments incorporate current research studies on teaching mathematics. Observers of her practice have found it to be exemplary for inquiry-based teaching. Professor Cengiz is perceived by her students as very knowledgeable, caring, and helpful, and for setting high standards. Her teaching evaluation ratings are extraordinarily high. She updates her teaching portfolio annually with depth and insight.

Research: Professor Cengiz's research is rated excellent. She is developing an excellent corpus of scholarship around rational number learning and supporting and extending student thinking. Her work is grounded in the existing knowledge base, is well-developed, insightful, and nuanced. She has published in respected research journals, practitioner journals, books by international publishers and editors, and in vetted conference proceedings. This evaluation is bolstered by the uniformly strong letters written by a diverse pool of six external reviewers. Her work was praised for making real and lasting connections between research and practice, for contributing to the national and international knowledge base around the scholarship of teaching, and for speaking to a wide audience that includes teachers, researchers, teacher educators, and curriculum developers. The publications were characterized as high quality, high visibility, and peer-reviewed.

# Recent and Significant Publications:

- Rathouz, M., & Cengiz, N. Preservice teachers' understanding of decimal numbers and quantities. *Proceedings for 39th Annual Meeting of Research Council on Mathematics Learning*. Charlotte, NC, February 2012.
- Cengiz, N. Facilitating productive discussions: Promoting reasoning. *Teaching Children Mathematics*. (Accepted, 08/30/2011)
- Cengiz, N., Kline, K., & Grant, T. J. (2011). Extending students' mathematical thinking during whole-group discussions. *Journal of Mathematics Teacher Education*, 14(5), 355-374.
- Cengiz, N., & Rathouz, M. (2011). Take a bite out of fraction division. *Mathematics Teaching in the Middle School*, 17(3), 146-153.
- Cengiz, N., & Rathouz, M. (2011). Games to support decimal number reasoning. *Mathematics Teaching in the Middle School*, 17(4), 244-251.
- Cengiz, N., & Grant, T. J. (2009). Children generate their own representations. *Teaching Children Mathematics*, 15(7), 438-444.
- Grant, T. J., Kline, K., Crumbaugh, C., Kim, O.K., & Cengiz, N. (2009). How can curriculum materials support teachers in pursuing student thinking during whole-group discussions? In J. T. Remillard, B. A. Herbel-Eisenmann & G. M. Lloyd (Eds.), *Mathematics teachers at work connecting curriculum materials and classroom instruction* (pp. 103-117). New York, NY: Routledge.
- Cengiz, N., & K. Kline. Characterizing elementary school students' explanations of their thinking. *Proceedings of 29th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*, Reno, NV, October 2007.

Service: Professor Cengiz's service is rated significantly capable. At the discipline level, she has served continuously on the Mathematics Education Committee, is coordinator of mathematics education tutors, has regularly conducted workshops for transfer students, supervised tutors for Math 385-387, and has co-facilitated advising sessions for mathematics education majors. At the departmental level, Professor Cengiz has served on the LEO Assessment Committee, and the Website Committee. At the campus-wide level she is a member of the M-Portfolio Learning Community, and a mentor in the Transitions Mentoring Program in the Women's Resource Center. Professionally, she was a co-planner of the Conversations among Colleagues conference in March 2009, and has served as a referee for several mathematics education journals.

### External Reviewers:

Reviewer A: "Her work has impact across the professional continuum, from those who are learning to teach to highly experienced classroom teachers."

Reviewer B: "Professor Nesrin Cengiz has a pair of clear research themes consistently woven throughout her work. She has been published in excellent journals, and shows promise for continuing development. This is particularly true of her work in the area of explaining how teachers use specific instructional moves to elicit reflection and extended thinking in students. ...I would place Professor Cengiz in the upper quartile of mathematics educators at the same point in their careers."

Reviewer C: "The writing of Dr. Cengiz is of high quality. Most of it is addressed to practitioners of teaching and teacher education, and in this context, it can be judged as superior for its clarity and its intellectual sophistication. A deep understanding of the fundamental ideas of elementary mathematics is represented, together with a parallel understanding of how children think about and do mathematics."

Reviewer D: "The quality of Nesrin's writing is excellent. Each of the sample writing pieces is well-written, focused on an important topic or issue, and published in a prominent peer-reviewed journal or book. All of her published journal articles, book chapters, and conference presentations clearly fall into one or more of these areas and focus explicitly on contributing to both research and practice in mathematics education."

Reviewer E: "I think that Professor Cengiz is off to an excellent start in academia and my overall assessment is that her work is making an impact upon our field...Her publications appear in excellent journals and I believe that she shows much promise for sustaining her productivity."

Reviewer F: "My best judgment is that Dr. Cengiz has initiated a trajectory of research and dissemination that is cohesive and important to the field, and compared to others, has a great deal of potential. Further, her work is gaining a momentum, and Dr. Cengiz's commitment to communicating research findings and illustrations directly to the teacher audience is critical for potential impact."

## Summary of Recommendation:

Professor Cengiz has been rated excellent in the areas of teaching and research, and significantly capable in service. We are very pleased to recommend, with strong support of the College of Arts, Sciences, and Letters Executive Committee, Nesrin Cengiz-Phillips for promotion to associate professor of mathematics, with tenure, Department of Mathematics and Statistics, College of Arts, Sciences, and Letters.

Jerold Hale

Dean

College of Arts, Sciences, and Letters

Daniel Little

Chancellor

University of Michigan-Dearborn

May 2013