UNIVERSITY *of* WISCONSIN
LA CROSSE

December 22, 2011
Letter of Recommendation for Maggie McHugh

Dear Admission Committee:

As an Associate Professor of Mathematics Education, I have known Maggie McHugh as a mathematics education student, an undergraduate and graduate researcher, and a colleague. Over the past six years, I have witnessed Maggie's transform from a high quality undergraduate student into an educator committed to creating a classroom that supports all students and helps them become active members of a democratic society. I firmly believe that Maggie McHugh has the *intellectual and personal commitment* to lifelong learning and, therefore, is an ideal candidate for your Doctorate of Philosophy Program in Curriculum and Instruction at New Mexico State University.

Aligned with your College of Education mission, Maggie McHugh is a strong advocate for social justice in mathematics education by fostering students' abilities to enact change in the world. *Through education, research, extension education, and public service with specific emphasis on innovative practices, overcoming barriers to learning, international activities, technology, and literacy for the diverse populations*, Maggie has demonstrated *praxis* in both teaching and learning.

Education and Extension Education

As one of Maggie's undergraduate mentors and graduate thesis advisors, I had the pleasure having her as both a student and researcher. As a student, Maggie has consistently shown her drive for academic excellence by consistently scoring at the top of these undergraduate and graduate classes in both exams and project assignments. She routinely has gone above and beyond course assignments to provide a model example for her peers. Maggie also has shown her ability to integrate her knowledge of the mathematics content with her pedagogical skills by creating assignments that demonstrate her abilities to use the *conventions of curriculum and pedagogy to address problems creatively in diverse socio-cultural contexts*.

For example, in my graduate level course C-I 750 Integrating Mathematics with Reading and Writing, she created a mathematics lesson that fostered an understanding bilingualism in the context of schools. This lesson was based on her published book, *Ka's Garden (Ka Lub Vaj)*, a bilingual children's book, and was focused on understanding the Hmong culture. For this lesson, students applied their fraction concepts to understanding of the gardening practices of Hmong peoples. Since this class activity, she has taken this lesson and implemented it in several area elementary schools that have a large percentage of Hmong students. With this expertise, Maggie has also assisted me in a graduate course for in-service teachers that integrated mathematics and children's literature. Her hard work and academic commitment makes her an ideal candidate for the successful completion of the rigorous program focused on *intellectual process and praxis of study* as outlined by your educational program.

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As an educator, Maggie McHugh has expertise in a variety of learning environments. She has taught high school students in both language arts and mathematics. During this time, I have had the opportunity to observe her in the classroom. Each time, I was amazed by her ability to honor students' needs and values in order to create a positive learning environment. For example, in a statistics class she had her students develop and implement a research project that connected content knowledge (organizing, collecting, and displaying, and interpreting numerical data) within a relevant context for students.

At the University of Wisconsin –La Crosse, Maggie served as both an English and Mathematics Specialist for the Student Support Service and a mathematics liaison for the McNair Scholars Program. As federally funded TriO programs, these services provide personal, academic, and career support to low income and first generation college students, as well as students from underrepresented groups and students with disabilities. In this role, Maggie was instrumental working with diverse learners in order to provide them with the knowledge, skills, and dispositions in order to be academically successful.

In her current position with the Mathematics Department, Maggie is the Director of the Murphy Leaning Center as well as an instructor. As the Director of the Murphy Learning Center, Maggie has implemented the mission to foster an inclusive environment where academic learning flourishes by providing tutoring services that address the needs of our diverse student population, creating a welcoming, safe environment where all can learn, and empowering students to achieve their highest potential both in and outside of the classroom. Through her dedication, Maggie successfully petitioned for and received additional funding for the Murphy Learning Center that will further its mission by providing tutors with extensive training and national certification.

As a mathematics instructor for my department, it is evident that Maggie's teaching philosophy is guided by Critical Pedagogy as she designs mathematics lessons that focus on social inequities and creates a classroom culture that fosters mutual respect and trust, values students' voices and honors their individual learning needs. As an example of this pedagogical focus, Maggie has her mathematics students investigate the social inequity related to wage gap issues. In this project, students apply their mathematical knowledge of percents and linear equations to critically assess the relationship between annual salary and gender, race, and ethnicity. For remedial mathematics students, this project has provided them a venue to see how mathematics can be used to critique society and enact change. This transformation from application to action was showcased when Maggie brought a team of her students to present this activity to my elementary teacher education candidates this semester.

As an educator and researcher, Maggie has utilized innovative uses of technology in order to support diverse learners and reduce barriers to learning. As a co-principal investigator on a UW System grant, Maggie led teachers and teacher education candidates in the development and implementation of digital learning materials that were designed to support student learning in mathematics. These culturally-responsive materials were designed with a focus on diverse learning styles and academic needs. These materials are widely available to students at all levels and can be accessed at http://www.uwlax.edu/iiurl/.

Scholarly Research

As a research, Maggie and I collaborated on several projects related to student learning. One project was her masters' thesis, *Pre-Service Teacher's Beliefs, Dispositions, and Abilities Regarding Social Justice and Mathematics*, which examined the impact of purposeful modeling of social justice themes in a math methods course for elementary teacher candidates. Through this research, Maggie constructed critical lessons that engaged teacher candidates in discussions centered on mathematical content and societal inequities associated with racism, sexism, classism, and other groups. For example, in one activity,

teacher candidates were asked to design and promote an accessible playground for their field experience school site. Not only did the class discussions center on area, perimeter, slope of slides, and cost of materials, but it also focused on Article 30 of the United Nations Convention on the Rights of Children, "all children have a right to relax and play, and to join in a wide range of activities." As a mathematics educator, Maggie helped me understand the necessity for critical pedagogy and have since developed new *curriculum that reflects a broad world view.*

Maggie's thesis work and her current extensions of this research documents her readiness for a *rigorous dissertation based on original research, inextricably grounded with an array of primary and secondary sources*. With Maggie as the primary author, the research on this transformation is currently under review in the Journal of Urban Mathematics Education. In addition to peer-reviewed journal articles, Maggie has presented her research and related interests in teaching and learning as several local and state-wide conferences. Based on the positive feedback from educators, Maggie and I will be jointly presenting at the National Council of Teacher of Mathematics Annual Conference in Philadelphia, PA in April, 2012.

Maggie McHugh is also dedicated to *building of a community of scholars* as she has served as a co-mentor to one graduate and three undergraduate research students. These projects included researching Hmong culture in both oral history and through art. One project also includes international activities as a researcher will be traveling to his homeland of Laos to research the Hmong culture through artistic work that will serve as a medium for the next published Hmong children's literature book, *Metal Hawk in the Sky*, authored by Maggie McHugh. This book will focus on the impact of Vietnam War on the Hmong people, specifically children. In another project, Maggie has assisted me in guiding a secondary teacher candidate understand the learning barriers to mathematics for diverse student populations. With Maggie's assistance, these projects have or will be formally submitted as research articles for publication.

Public Service

Maggie McHugh is dedicated in serving the university and the community. She has received two grants that have allowed her to bring bilingual education to the larger community through her work with two UW-La Crosse student groups, Hmong Organization Promoting Education and the School of Education Diversity Organization, as well as the La Crosse Area Hmong Mutual Assistance Association. She also serves as campus president of the Organization of Campus Women that seeks to promote equal opportunity for all women.

Throughout my work with Maggie McHugh, she has demonstrated a lifelong commitment to all areas of critical pedagogy, best-practice instruction, and a focus on student learning. Aligned with your vision of a doctoral program, I have firsthand knowledge of Maggie's commitment to the *intellectual process and praxis* critically focused on *scholarship* as the co creation of knowledge, *action* through the transformation of society, and *compassion* towards social justice and democracy. Feel free to contact me at any time to further discuss Maggie's qualifications for graduate school at New Mexico State University.

Sincerely,

Jennifer J. Kosiak Ph.D.
Associate Professor
Mathematics Education Specialist

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