

## Interview with Susie Hakåansson on the Development of the California Mathematics Project

Viji Sundar

**ABSTRACT.** The California Mathematics Project (CMP) was legislated in 1982 by California Senate Bill 424. The purpose of the CMP is cooperatively planned and funded support of rigor and quality in the mathematics education of California's students across primary, secondary, and post-secondary levels. As with any attempt at getting people from diverse professional backgrounds to work together, the initiative called for the development of shared purpose, mutual respect, and effective communication. The call for these efforts came at a challenging time in the history of education in California. Under the leadership of Susie Hakåansson, CMP made it into the 21st century and flourished. This interview is from 2012. At that time Dr. Hakåansson had been the Executive Director of the CMP for more than a decade.

**Dr. Sundar:** Hi, I'm Viji Sundar, Professor of Mathematics at California State University Stanislaus. I am also the Director of the Central California Mathematics Project, a site of the California Mathematics Project (CMP). With me is Dr. Susie Hakåansson, Executive Director of the California Mathematics Project. Susie, please share with us your growth from being a classroom teacher to leading the California Math Project at its 19 sites from Eureka to San Diego.

**Dr. Hakåansson:** In 1984, I was a high school mathematics teacher in Los Angeles Unified School District and was asked to be the visiting high school mathematics teacher at UCLA. It was a one-year full-time appointment, so I took the opportunity to participate in the UCLA Mathematics Project (UCLAMP). By January, I was asked to be the director of the UCLAMP, housed in the Graduate School of Education and Information Studies. After I finished my year as visiting high school math teacher, I returned as a part-time classroom teacher and continued as the UCLAMP Director. In January 1987, I began the Ph.D. program at UCLA in Learning and Instruction and continued as the UCLAMP site director. During that period UCLAMP grew to where it needed two co-directors, so Jody Priselac and I became the co-directors. I was also the faculty adviser of two cohorts of UCLA Joint Mathematics Education students obtaining their single-subject credential in mathematics. In November 1999, I became state-wide Executive Director of the CMP and moved to the Mathematics Department.

**Dr. Sundar:** I remember that when you were selected as the CMP Executive Director in 1999, some of us site directors were uncertain about the future of the CMP, in part because CMP had shifted the focus from teacher leadership to conceptual understanding of basic skills. However, with your leadership, CMP thrived. Would you share with us some of the challenges that you faced and how you brought the project to where it is today?

**Dr. Hakånsson:** The interesting thing is that I became the Executive Director of CMP in November 1999, and at both the California Mathematics Council – Southern Section (CMC–S) in Palm Springs conference and the California Mathematics Council – Northern Section (CMC–N) in Asilomar conference people came up to me and said, “Congratulations, I guess.” Many people were concerned over what might happen to the CMP and were wondering if it was something I wanted to tackle. There was a belief from some that the CMP would not focus on mathematics content. One of my first challenges at that time, you may recall, was that the CMP Advisory Board members and the CMP Project Directors were at odds with each other. For several years, even when I was a site director, I had felt there was always an “us against them.” As Executive Director, I had to bridge that gulf. So, one of my first goals was to bring stability to the CMP in terms of the philosophy of mathematics education that could be embraced by both the Board and site directors, to improve communication between the Board and site directors. I wanted to bring the two communities together to a common vision and a common goal, and then prepare for the next executive director to take the CMP to a new elevated vision.

I realized that I was getting there when the Mathematics Project Directors said that I was advocating for the Advisory Board and the Advisory Board felt I was advocating for the Directors. They both felt I was on the other side. The other thing that occurred at the time was that in 2000-2001 California was provided extensive funding for Mathematics Professional Development Institutes (MPDI). With all of this funding, the Board began to provide more support to the sites and was less interested in reducing the number of project sites. It was clear that the CMP did focus on mathematics content.

**Dr. Sundar:** That’s correct. I remember that.

**Dr. Hakånsson:** I wrote the MPDI proposal for the CMP and submitted it so that CMP sites became MPDI providers. Any CMP site that wanted to be part of the proposal sent me information requested in the proposal. What helped the MPDIs was that about 70% to 80% of all the MPDIs offered were provided by the CMP, and that put the CMP on the map. Many people went to visit the MPDI sites, and most saw that the sites did provide high quality professional development with high quality mathematics.

**Dr. Sundar:** Yes! As I recall those days, the MPDI had generous funding, and you are correct that in saying that put the CMP on the map. The CMP became the place to go for program improvement in mathematics for teachers and students state-wide. Now let me turn to the English Learners (ELs). I would like to point out that the questions I’m asking were from several site directors across the state. This one is from a person who is deeply involved with ELs. She would like you to share some of the EL initiatives you led as Executive Director of the CMP.

**Dr. Hakånsson:** In addition to MPDI funds, there were also funds available for ELs. So, I got together a group of people with expertise in mathematics and in English language development and we designed the English Language Development Institute in Mathematics Content (ELDI-MC) programs. Also, the California Subject Matter Project had additional funds and gave the CMP funds to focus on ELs. That was another initiative that really supported the sites financially. It was encouraging to know that when this funding ceased, a couple of sites continued to offer ELDI-MC on a “fee for service” basis to schools and districts.

**Dr. Sundar:** As a new Director comes on, what do you think must be done so that ELs continue to be an emphasis for the CMP?

**Dr. Hakånsson:** The legislation for CMP requires attention to ELs, so it will continue to be an emphasis. The more important thing now, and many people aren't aware of it, is the English Language Proficiency Development (ELPD) Standards that are still in draft form. The ELPD Standards recognize that English learners don't learn English linearly. They require extensive discourse, not with simplified language but with high cognitive demand language and tasks.

**Dr. Sundar:** We talked about your coming to the CMP and trying to build a community of educators with the Advisory Board and the project site directors. How did your goals for California Math Projects change in your 13 years as Executive Director, and what prompted you to make those changes?

**Dr. Hakånsson:** As I was working on building a community of educators, the funding situation changed. All of a sudden, a new challenge emerged. I had \$4.5 million the year I became Executive Director plus the funds the sites received for the MPDIs and ELDIs, and within three or four years the CMP was down to \$1.4 million per year. My goal changed from stabilizing the CMP politically to stabilizing it fiscally. Funding in 2004-2005 changed dramatically to what it is today. The money now goes to school districts in block grants. The decision to change the funding stream was based on the idea that schools that are not performing well should be given the funds to make decisions on how to improve their students' performance. It should not be up to outsiders to come in and tell them how they should improve. That was the theory. Unfortunately, that idea didn't always work, because some districts didn't use the funds effectively to improve proficiency. Many CMP sites were very entrepreneurial and knew what the districts needed. They contracted with schools and districts to provide professional development. During the last three years, the funding situation has deteriorated further. Now nobody has money.

**Dr. Sundar:** Let us move to the present, I think the biggest challenge for mathematics teachers today is implementing the Common Core Standards - not only in California but in the nation. Could you give us a brief history of the Common Core Standards, where things stand now, and how you expect and hope they will develop?

**Dr. Hakånsson:** The Common Core State Standards (CCSS, 2010) are a big departure for the U.S., because all the states that adopted the CCSS are now focusing on a common set of standards. That opened California up to being part of a national conversation on standards. The CCSS focus on teaching mathematics for understanding was a departure from the earlier standards, which focused on teaching procedural skills. Even now, teachers who have been teaching maybe six or seven years or less don't know any other way of teaching or assessing student learning except with standardized tests focusing on procedural skills. Teachers now have to look at what it means to teach mathematics with understanding. It was a big shift.

The Standards for Mathematical Practice really set the guidelines, based on habits of mind that students need to have to be mathematicians. The mathematics content wasn't new, but the approaches to some of the content were novel, and some content areas were given increased emphasis. For instance, the approach to fractions was to look at fractions as points on a number line. It is fine to introduce fractions in a discrete way. We can say here are six pieces, what is one half of these six pieces, or if you have a birthday cake, what is one fourth of a cake? It is okay that that young kids understand that, but we also want them to understand fractions as points on a number line and that two fractions are equivalent if they share the same point on a number line. Unfortunately, many students today think fractions are not numbers. Now students will see fractions as one of the several expansions of the number concept that they encounter as they

progress from kindergarten to university. Transformational geometry was given increased emphasis, particularly in middle school. Another shift was to consider mathematical modeling.

Also, since the CCSS are for college and career readiness, we at CMP wondered how to use the career goals of students to motivate them to do mathematics. The CMP addressed some of this by collaborating with Career and Technical Education (CTE) to offer the CMP-CTE-Connection (C3) Institute last year. In that institute, CTE educators discovered that “I really need to know the mathematics.” One career tech teacher said he wanted to take a mathematics course because he saw the relevance of mathematics in his course. What is more, as a result of participating in the C3 Institute where mathematics was connected to the courses, engagement of the students increased.

**Dr. Sundar:** In addition to the CMP, you have been active in TODOS: Mathematics for ALL since its inception. What inspired your passion for being part of this organization?

**Dr. Hakånsson:** When I was a high school teacher, I taught for eight years in a school that was 90% Hispanic/Latino with about 10% English learners. I tried hard at the time with whatever knowledge and expertise I had to provide access to the mathematics for the English learners. Although I qualified to have an Instructional Aide in one of my classes, there weren't any aides qualified to support students in an Algebra 1 class. A conference session at NCTM brought together people who wanted to discuss learning needs of Hispanic/Latino students, and I joined the session. This led to the formation of TODOS. TODOS focuses on equity and excellence for all students. I was on the TODOS Board for about seven years since the formation of TODOS in 2003. Now about one-fifth of TODOS members are from California.

**Dr. Sundar:** Wonderful. The other organization I want to discuss with you is the California Association Mathematics Teacher Educators (CAMTE). Before I ask the question, I have a comment to make. I have been teaching mathematics on this campus (California State University, Stanislaus) for a little over 30 years. When I started teaching here, I thought I would be teaching mathematics to prospective grad students, but I soon found out that most of the mathematics majors were going to be teachers rather than heading for graduate degrees in math. I found out that here as well as in most campuses across the country, mathematics faculty had little interest in Teacher Education and sometimes even looked down on those who engaged in it. Blissfully, that has changed now. There is a great deal of respect for and also demand for mathematicians who are math educators and I think CAMTE has a lot to do with it. Since you have been a member of the CAMTE Advisory Board from the beginning, please tell us a little about how CAMTE got started and your passion for CAMTE.

**Dr. Hakånsson:** I need to go back to when I was a CMP site director. CMP site directors wanted to increase the mathematics content offerings for pre-service elementary teachers to deepen their understanding of the mathematics they teach. The CMP mathematics educators have always been very concerned about the mathematics preparation of teachers, and that's when I became aware of teacher preparation issues. After several years, California's AMTE affiliate, CAMTE, was formed. It was natural for the CMP to be involved with CAMTE because the CMP is involved in in-service, professional development of mathematics teachers, and most of the CMP faculty were involved in teaching pre-service teachers of mathematics. I was asked to be on the advisory board from the beginning, and I continue to serve on the CAMTE Advisory Board, because of the expertise I bring as CMP Executive Director.

I would say one of the major contributions CAMTE has made is in advocating for pre-service education with the California Commission on Teacher Credentialing (CCTC). It is imperative that CTCC hears from mathematics teacher educators before making decisions that impact them.

**Dr. Sundar:** You are right. You have been involved in many professional endeavors in your long career, and I am honored to have been part of some of them. Which ones stand out in your mind as being the most meaningful and personally satisfying?

**Dr. Hakånsson:** I would like to highlight two professional endeavors for two different reasons. One is the California Mathematics Project's Supporting Teachers to Increase Retention (CMP STIR). Around 2006, the then California Governor asked both the University of California (UC) and the California State University (CSU) to increase the number of credentialed teachers in the state. The mandate was for the UCs to increase output of mathematics and science credentials by 25% and for the CSUs to double their number. However, data on teacher retention indicated that about 50% of new teachers leave the profession within the first five years. So, the question is "Why spend so much money to recruit teachers when we don't retain them?" With this in mind, the California Postsecondary Education Commission (CPEC) issued a call for proposals for teacher retention. I wrote the one for mathematics, and the resulting funding (over \$6 million for six years) supported ten CMP sites, with the sole focus of determining factors that will contribute to increasing teacher retention. I am really proud of the work there. The proposal was written with extensive input from CMP site directors. CMP STIR included a research component, and the results of the grant were shared in a national symposium. We invited the seminal person on teacher retention, Dr. Richard Ingersoll, Professor of Education and Sociology at University of Pennsylvania, as our keynote speaker. He was able to come, and it was just really exciting. I believe that CMP STIR is a key accomplishment of CMP. The research monograph reflects all that CMP contributed to the learning on teacher retention (CMP, 2012).

The second endeavor is the development of the Content Modules for CCSS Mathematics. The CMP created five Task Forces to develop five content modules to provide guidelines for CMP sites and any other interested parties to use. These are aligned to the CCSS. One of the reasons why this initiative was important to me is that I invited members of the California Mathematics Council, mathematics specialists of the County Offices of Education, and CAMTE to work collaboratively with the CMP to develop the content Modules. These groups had never really met together, and I heard there was some suspicion among those attending. I wanted to get away from competing against each other to collaborating with each other. We were all in this together. The group realized that it would take all parties to get all the work done, so they worked together. Even today I hear people tell me, "That was really an amazing thing to do - bringing all these groups together." I felt the products were high quality and that was important, but maybe more important is the collaboration that was established, because I think that may continue.

The efforts of CMP STIR were well received, and the organization of CMP STIR was very effective. As a result, the CPEC gave the CMP additional funds (\$800,000) to provide the Common Core Institutes, so each CMP site was provided about \$50,000 to implement the Modules that were developed.

**Dr. Sundar:** Thank you very much! Okay, so from your point of view you have highlighted two projects. Which of the two had the most positive influence on CMP?

**Dr. Hakånsson:** It would hard for me to say. I will say the Task Force working groups have had a tremendous impact, and it is not so much by the materials created but by bringing the people from different organizations together. There have always been suspicions about “us” and “them” and concerns about competition. Bringing everybody together was a major shift at the time. I have always tried to be inclusive. It is important to be inclusive, transparent, and visible. Those are three traits that I try to keep up front. The CMP needs to be visible. If I am invited to attend something and – depending on what it is – if I believe the CMP needs to be at the table and I can’t go, I’ll send somebody. I’ve done that several times when I just couldn’t attend. Quite often you may attend meetings where nothing happens afterwards, but you have contributed something. I have attended many of those meetings, and even if I know a meeting is going to be that way, we need to be present. That is part of what I mean when I say the CMP needs to be visible, inclusive, and transparent.

**Dr. Sundar:** Susie, one of the project site directors sent in a question. “Given the implementation of the California Common Core Standards in mathematics, what do you think are the top three professional challenges for the California Math Project?”

**Dr. Hakånsson:** Number one would be *teaching for understanding*. The Standards for Mathematical Practice (SMPs) focus on the practices expected of students. The challenge is for teachers to know what those practices look like. They need to experience them to know the SMPs. As professional development providers, the CMP can work with teachers both to understand the SMPs and to use them to benefit their students.

The second challenge is *content knowledge* of the key areas in mathematics that we talked about: fractions from a number line approach, transformational geometry, and mathematical modeling. Teachers need to understand those topics.

The third challenge is the *delivery of instruction*. How do teachers engage all students, particularly underserved students, in the SMPs? They have to change their way of teaching, but what does that mean? I might understand something but not be sure how to teach it, so I need professional development to equip me to teach it to students, so they understand it.

**Dr. Sundar:** Beautifully said! I think I’m going to use this in my Institute when I introduce mathematical practices, because it is really the key to the implementation of the CCSS. What do you hope your legacy to be?

**Dr. Hakånsson:** I remember reading about a Hewlett-Packard CEO who, when asked about his legacy, said “I won’t have a legacy unless my successor is successful,” and that’s what I will say. If my successor is successful, then that’s the legacy – the fact that the project is able to walk on its own.

**Dr. Sundar:** Susie, it has been an honor for me to do this interview and to have worked together with you for 24 years or more. Your warmth, hospitality and enthusiasm have meant a lot to me. I have learned much from you. The CMP is very lucky to have your leadership and dedication. After you retire, I know you will continue to be involved, but maybe you won’t travel so much and can find time to sit down and enjoy a cup of tea or perhaps a glass of wine. Thank you so very much!

## References

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## About the Author

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