

Samaras, A. P., DeMulder, E. K., Kayler, M.A., Newton, L., Rigsby, L. C., Weller, K.L., & Wilcox, D. R. (2006). Spheres of learning in teacher collaboration. In C. Kosnik, C. Beck, A. R. Freese, & A. P., Samaras, (Eds.). *Making a difference in teacher education through self-study: Studies of personal, professional, and program renewal* (pp. 147 – 163). The Netherlands: Springer.

## Spheres of Learning in Teacher Collaboration 8

**Anastasia P. Samaras, Elizabeth K. DeMulder, Mary A. Kayler, Laura Newton, Leo C. Rigsby, Karen L. Weller, and Dawn Renee Wilcox**  
George Mason University, Virginia

**Abstract:** In this chapter, we report on two studies in a Master's program for practicing teachers that maintains collaborative culture making at its core, for students and faculty alike. We conducted two studies related to this collaborative culture making and concluded that collaboration is essential to programs of study for teachers and teacher educators. In the first study, we investigated the perspectives of our alumni on their collaborative experiences. Findings indicated links between alumni's multi-layered collaborative experiences in the program and their subsequent pursuit of National Board certification. In the second study, we conducted a collective self-study of a faculty teaching team's collaborative experiences and factors that they believe enhanced their continued professional development. Both studies are placed within a description of the Initiatives in Educational Transformation (IET) program, which aligns with sociocultural practices of

learning with and through others. To frame our work, we draw from Vygotskian (1978) theory and Samaras' (2004) notion of *learning zones*, adapted from Vygotsky's conception of the zone of proximal development and the social construction of knowledge. The work of Lave and Wenger (1991) in situated learning also informs this work.

Despite calls for collaborative teaching practices, building collaborative cultures, and self-study of those practices (Clandinin, 1993; LaBoskey, Davies-Samway, and Garcia, 1998), many schools of education continue to support practices that preserve the status quo of the isolated teacher and teacher educator. Reformers claim teacher development is hindered by teacher isolation in schools devoid of collegial discourse, critical inquiry, and action research in authentic settings (Darling-Hammond, 1993; Goodlad, 1994). If, as Calderhead and Shorrock (1997) claim, research is needed on the development of collegiality within schools because it has the potential to offer teachers and mentors opportunities to learn from each other, then study of collaborative environments merits our attention. And if, as Sykes and Darling-Hammond (1999) note, teachers' professional development is a key ingredient in improving schools, then how professional development programs are designed and what those programs actually accomplish should be studied. According to Fullan (1991), "Educational reform will never amount to anything until teachers become simultaneously and seamlessly inquiry oriented, skilled, reflective, and collaborative professionals" (p. 326). He further contends that life-long learning of teachers depends on an opportunity to learn with others. Diez and Blackwell (2002) argue that collaboration is integrally connected to professionalism and central to both the National Board and to advanced master's programs.

Our focus in this chapter is two studies linked by the theme of collaboration for professional development and renewal. In the first study, we report on the collaborative learning experiences of eight alumni who pursued further professional development after graduation by applying for National Board certification. The second study reports on a faculty teaching team and their perceptions of collaboration. In each case, we describe the self-study's impact on participants, with a particular focus on the personal and professional relationships that develop.

**Key words:**

## 1. THEORETICAL FRAMEWORK AND PROGRAM DESIGN

At the center of the design and curriculum of the program discussed in this chapter is a commitment to learn with and through others, which aligns with our investigative sociocultural lens and the concept of *learning zones* (i.e., spheres of knowledge construction). This concept was developed by Samaras (2004), with adaptation from Vygotsky's (1978) conception of the zone of proximal development. Learning zones are organic and diverse communities of expertise where learners co-mediate, negotiate, and socially construct an understanding of a shared task. Vygotsky's zone of proximal development (ZPD) is "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (Vygotsky, 1978, p. 85). Our program provides multiple opportunities or spheres of learning for teachers and faculty to share their differing gifts, multiple intelligences, and multiple perspectives. It also encourages dialogue of their maturing and nascent understandings of who they are as learners and teachers and how that impacts their students' learning. In effect, they assist each other's development and newfound insights through their collaborative problem solving within their ZPDs. Their critical dialogue around diverse ideas provokes and assists them in challenging their own ideas as well as their peers' assumptions about teaching. This research suggests that this peer scaffolding through collaboration is central to their professional development.

Also central to the design and curriculum of our program is the idea that the content and practicality of teachers' study is situated in their classrooms and school practices. Higher mental functions are influenced by social interactions and internalized by an individual within a sociocultural system and in context. Peers assist peers and help make the tasks of teaching seem manageable and doable as they support each other on an emotional and cognitive level. These emotional and cognitive anchors are situated or grounded in their everyday teaching. Lave and Wenger (1991) note that learning, thinking, and knowing take place when people are engaged in communal activities and when they situate themselves in a community of practice in the historical development of the activity.

Earlier research and experience informed our current work. With others (Samaras and Gismondi, 1998; Samaras, Taylor, & Kelly, 1994), Anastasia worked to restructure a largely undergraduate preservice teacher education program to harness the collective expertise of students, cooperating teachers,

and professors. Likewise, Elizabeth and her colleagues (Sockett, DeMulder, LePage, & Wood, 2001) critiqued the early years of the current program, describing the vision and the continuing challenges of a program designed to embed teachers in a learning community. Gerow (2001) found that IET teachers became increasingly invested in each other's research through dialogue and writes, "Individuals learned and understood how a colleague's research in practice created connections and related to their own classrooms and to school wide issues of concern" (p. 75). We build on our early work to consider the ways that commitment to a collaborative teaching and learning culture might promote educators' long-term learning and sustain their transformed understandings and perspectives in their work with students. A description of our current program design will help to situate this research, which began in 2002.

IET is a school-based Master's program for PK-12 practicing teachers within the College of Education and Human Development at George Mason University (GMU), a distributed university. Since 1992, over 1,000 classroom teachers coming from school divisions and districts across Virginia, Maryland, and the District of Columbia have joined cohorts that meet on our two campuses. Currently there are five classes of about 70 teachers each working with five faculty teaching teams. Our non-traditional, teacher and family-friendly schedule attracts teachers, teacher specialists, and administrators to work together in teaching teams in three intensive summer sessions and 16 day-long classes over a two-year period. Within every class, there is great variability in teachers' years of teaching experience and expertise. Teachers conduct classroom action research projects in the first year and team-based school change projects in the second year. The curriculum is designed to support practicing teachers' professional development and practice through the lenses of ethical and moral professionalism, self-study, narrative inquiry, action research, and professional collaboration. IET's program is aligned with the National Board for Professional Teaching Standards (NBPTS).

The program design entails learning zones for teachers' reflection and critical dialogue in whole class groups, cohort groups, Web-based forums, and school teams. Together this interwoven set of processes appears to lead many teachers through personal and professional transformation (DeMulder & Rigsby, 2003). IET's Beliefs and Principles in Practice document notes the following regarding teams: "Working together is complex and difficult and requires considerable energy and dedication. Collaborative communities have mutual perspectives as well as multiple individual perspectives with separate, sometimes competing or conflicting interests. But individual perspectives also frequently have overlapping interests, areas of expertise, and unique strengths and weaknesses" (See [www.gmu.edu/iet](http://www.gmu.edu/iet)). IET's

emphasis on working in teams is aligned with two NBPTS propositions: 1) Proposition Four (Teachers think systematically about their practice and learn from experience, particularly as they seek the advice of others and practice perspective-taking), and 2) Proposition Five (Teachers are members of learning communities and work collaboratively with other professionals).

Faculty also work in teams and some are working across teams and experimenting with joint class days. Therefore, knowledge is distributed across teachers in school and/ or regional school teams, in advising sessions and school visits, and among faculty teams. Faculty co-plan and co-implement a once-a-month 8-hour teaching day and bring their different perspectives and understandings to each task. The sharing of those differences and distributed expertise is what fascinates us and calls us to examine this dynamic context. In this chapter, we present our analysis of these participants' collaborative team experiences and the impact of those experiences on their professional development.

## **2. STUDY ONE: PATHWAY FROM INSERVICE TO NATIONAL BOARD CERTIFICATION**

The first study began when faculty noticed that several of our graduates had pursued National Board certification after graduation. We knew that the propositions of the NBPTS were embedded within IET's beliefs and principles, but we were curious to investigate the ways that our program supported and/or hindered our graduates as they pursued further professional development opportunities. We asked ourselves: In what ways does our program design and culture help to counter teacher isolation and nourish critical dialogue among teachers? Does the team culture foster our teachers' continued professional development and altered ways of knowing and thinking about teaching after they graduate and as they pursue National Board certification?

### **2.1 Methodology**

Our research team co-constructed an interview protocol that included questions related to how the structure and experience of the program impacted their professional development and their pursuit of National Board certification. Laura, a doctoral candidate in the Educational Leadership program at GMU, piloted the preliminary interview with two alumni who completed National Board certification after graduation from our program. We met frequently to refine the interview protocol. Laura then conducted semi-structured interviews lasting about one hour each with eight alumni we

were able to locate who had graduated in the last three years and who pursued National Board certification after graduation. All except one were female. Seven of the teachers interviewed received NBPTS certification. Their classroom teaching experience ranged from 5-15 years in a variety of subjects, grade levels, and school contexts and with a variety of school populations.

The interviews were tape-recorded and transcribed by Laura. Secondary data included the teachers' action research projects. Each research team member then individually read and re-read the interviews noting patterns and themes. Afterwards, we met to compare and again refine our collective analyses. Several broad categories were identified using the constant comparison method (Bogdan & Biklen, 1992). We then used a cluster analysis to further refine the categories into domains of teachers' professional development (Kayler, Samaras, DeMulder, Newton, & Rigsby, 2003). One of the themes drew our particular interest as it related to the sociocultural framework, i.e., "structured and mediated collaboration." This challenged us to look more closely at what our alumni had to say about their collaborative experiences in IET and how that impacted their learning experiences during and after graduation. The findings described below focus on this major theme of "structured and mediated collaboration" found in the larger study. Within this theme, we identified four categories of alumni' perspectives: 1) learning communities, 2) professional tools for practice, 3) impact on students' learning, and 4) transfer of skills to National Board certification.

## **2.2 Findings of Study One**

### **2.2.1 Learning communities**

Alumni spoke of vehicles of collaboration and the peer support systems in learning communities afforded through the program design. These support systems included: Dialogue and feedback with peers in class, in school teams, and through on-line peer learning communities, peer feedback on individual and shared tasks, especially research projects, and interactions with professors.

Dialogue helped teachers question their beliefs and the implications of those beliefs for their classroom practices. Alumni reported that they welcomed the time and space to have deep conversations with colleagues and to experiment with new ways of seeing their teaching. One teacher noted the need to be critical of each other's work. She explained the importance of being able to say to her colleague, "Here were the parts that

were confusing, here are parts that you could consider improving upon...and to convey the message that you can do this.” Teachers also dialogued in distance learning activities and within cohorts. Another commented, “We had little cohorts where we would get on the Internet and exchange ideas about the particular kinds of books that we were reading.”

For our alumni, occasions for interaction and support took place in school teams with colleagues who understood each other’s classroom realities. Trials and tribulations growing out of their individual action research were situated in the day-to-day life of schools. Alumni noted that the program structure and particularly the school-based team model provided a venue for collaborative and intellectual opportunities. One graduate commented that “it’s how you ask for help if you need it... The IET program definitely lends itself to that because you are working in a team model, so you are constantly talking about the things you do in your classroom.”

Another way to look at the effects of working in school teams is to look at evidence from the collaborative research projects--a key element of the IET program and a focus for critical dialogue within the school team. Review of relevant literature in the context of their research topics provided a forum for teachers to dialogue about theory. A two-person team working in a multi-age classroom reported that one of the most powerful aspects of teaming was “just being able to really question why we wanted to do the research and how we wanted to do it and questioning why we thought this program might really work. [If we had not done the research] we would have not discovered ourselves, our philosophies of education.” They used the research to develop and modify their understanding of teaching and learning by watching and documenting children’s learning. They used the data and deepened understanding to develop the structure of a new program. The research allowed them to explain the program to parents.

Lest we paint teaming as a panacea, we should also point out that teaming and working within each other's ZPD can be a source of conflict. Socially constructing knowledge is important but difficult work. For example, despite the fact that an alumnus reported that he continued to work with his IET teammate for several years after graduation, there was a moment during their second year when they reported irreconcilable differences, which they thought would keep them from finishing their research together. They were able to patch up their differences and finish, but not without some tears and anguish in learning to see each other’s perspectives.

The same alumnus spoke about the frustration he felt as he tried to articulate aspects of his classroom practice to one of his IET professors, and then described how this experience led to a more refined, professional approach to communicating with parents. He stated:

He was saying one day something that at first I was sort of mad about it, "Teachers ought to be able to explain why certain things are..." At first, I thought I could explain it. I was talking to my team member and saying I do not know what he is talking about, I think I was pretty clear in what I said. But as I rethought about it, I looked at some of the things again, he was right. If you are going to go and give this information as a presentation to parents, you ought to be able to say why, what your beliefs are, where did you come up with this. You cannot just say you think it's a good idea. So, I got better at doing that.

### 2.2.2 Professional tools for practice

1. *Perspective taking.* Alumni noted how the program allowed them to look at their teaching more critically by questioning their assumptions. As peers offered their interpretations of dilemmas, it helped broaden their perspectives of teaching. Additionally, their work in diverse groups with teachers who taught various subjects and grades allowed them to step outside their specialty area and have conversations with other teachers about classroom practice and student learning. These conversations often provided insights across developmental levels and validation or reinterpretation of their observations. They had many conversations where they were offering each other support, suggestions, and affirmation.
2. *Systematic inquiry.* Collaboration helped alumni conduct research more extensively than they might have been able to accomplish alone. For example, an alumna and her teammate collaborated in a study of "teacher talk" to help build a professional learning community in schools. To obtain a view of teacher talk, they asked teachers to journal about their lunch room conversations and used round-table conversations among the participants in their study to get feedback on the journaling. Their study evolved into a study of how to promote collegial conversations about teaching. The IET experience had a very positive impact on their development as professionals and their ability and commitment to work with others.
3. *Professional voice.* Alumni found a sense of agency in presenting their research at their school, claiming that "I started presenting to other Math teachers at different conferences, during staff development...without going through IET, I do not think I would have done these many things." Teachers expressed a sense of agency for making changes in their schools. One stated, "I found the voice I needed to express to people that change needed to be made. I could do it in a way that changes could be made as opposed to just being one of those teachers who are always

complaining about things.” Several alumni noted that the National Board fine-tuned what the IET program gave them as a foundation in terms of being able to reflect and the confidence to articulate their ideas for changing practice.

### **2.2.3 Impact on student learning**

Alumni reported that they saw the effects of their collaboration on their students’ learning. They gained insight about the importance for children to talk to each other after instruction, and of being a facilitator, not deliverer, of children’s learning. They realized that “All the learning is not just going to come from me.” Teachers also applied collaborative skills in school projects. They took the IET model and applied it to other groups. They talked about interpretations of pieces, read each other’s work, or said “I am really having a difficult time here; what do you think this means?” They held each other accountable. It was “the power of knowing that we needed each other to make it through.” Alumni mentioned other ways in which their teaming experience had a long-term impact as they continued to work collaboratively after graduation. For example, teachers who developed a new program of multi-age teaching during the program later continued to work on multi-age classroom projects after graduation.

### **2.2.4 Transfer of skills to National Board certification**

Alumni described ways that they were able to transfer their notions of collaboration from their IET experience to their National Board experience. The positive attitudes toward collegiality and life-long learning they expressed are consistent with the attitudes of teachers who work in collaborative school settings (Rosenholtz,1989). Our alumni spoke of the cognitive and collegial support that resulted in this transfer of learning.

One of the other team members and I did it together [worked on applying for National Board certification during the same time period]. We edited each other’s papers. Some days, she would say she was going to quit. Other days, I was ready to quit. We were never at the quitting point at the same time. So, we boosted each other through the whole process.

Another alumna explained:

[A teacher also pursuing National Board certification] had a difficult time reflecting. She would summarize everything and I would tell her that it was good, but it was not reflecting. At the end, she approached me and thanked me for helping her see the difference. I am very grateful to have been in that support team. We were able to share our writings and get

feedback before we mailed everything in. Having other people review my work with me gave me the confidence in mailing all those entries.

Alumni indicated that the professional tools they developed in IET, especially research, writing, and presentation skills, prepared them for similar work in National Board certification. They gained experience in documenting individual work, observing, collecting data, and assessing their students' learning through action research projects. When an alumna teacher presented her assessment as part of her portfolio for National Board certification, she explained: "I needed to have all the justifications for why I did what I did and the score that the child achieved. It was beneficial for me to use what I had learned through IET and carry it over into the National Boards."

They acquired new educational language in the IET program that prepared them and gave them the confidence to tackle the National Board. An alumna wrote, "I was never intimidated by reading the standards of the National Boards, or by reading what they wanted, because I knew exactly what they were talking about....IET gave me the theory approach and terminology that I could apply to what I actually do."

### **2.3 Impact of Study One on the Program**

Since collaboration is a key component of the IET curriculum, this research provided a window into seeing how our alumni perceived collaboration as experienced in our program. Alumni confirmed that IET's program structure offered multiple venues for their social construction of knowledge. Teachers worked together, learned new strategies, heard many voices, felt encouraged, and developed professional networks. Teachers' action research projects documented their achievements and new understandings of their students' learning (Kayler, 2004). After graduating from the program, teachers found their collaborative experiences of value in making continued changes in their classrooms and schools. It is our interpretation that learning zones for these practicing teachers were key to their professional development and thus worthy of consideration in the design of a professional development program. They learned collaboratively through (1) peer collaboration in school teams; (2) peer collaboration during class time; (3) peer collaboration in on-line learning communities; and (4) faculty assistance during class and school visits with advisees. Our study also suggests, however, that the value in and reflection about vehicles of collaboration the program affords could be more explicit to teachers during the program.

Alumni reported that they continued to use collaborative models and professional tools they learned in IET in their pursuit of becoming

Nationally Board certified, and this gave credence to our work. Providing multi-layered collaborative experiences for teachers during their master's work enabled more teachers to successfully complete that formidable task. This research sheds light on the benefits of investigating local evidence from alumni to inform program impact. For example, alumni offered faculty insights for how both the IET program and the National Board process might be improved through more deliberative attention to the quality of the collaborative structures for a National Board support course. They also noted that IET could offer more scaffolding in analyzing data and videotaping teaching exercises. Alumni indicated that the IET portfolio might be better aligned with the National Board standards. Do collaborative structures matter for *faculty* teams? We turn to that next.

### **3. STUDY TWO: CRAFTING OUR COLLABORATION AND FACULTY PROFESSIONAL DEVELOPMENT**

Study Two was generated from Anastasia's interest in exploring faculty teaming program-wide. As Director of the program, she visited each team's meetings and teaching days. When she visited the faculty team, called the Prince William Team 2005, she observed that their planning and teaching interactions were very different from hers and others in the program. She had conversations about the synergy of this faculty team and invited them to study their interactions more in-depth, employing the tool of collective self-study. The study focuses directly on the ways in which the team perceives faculty collaboration fostering their professional development. It is presented through their voices and with a collective analysis by the research team.

#### **3.1 Methodology**

Our teaching team, Prince William, consisted of Mary and Karen, assistant professors with doctorates in Curriculum and Instruction and Leo, a former IET director with a doctorate in Sociology who is retired and now participates as an adjunct. We hold diverse personal perspectives on many issues as well as drawing from vastly different lived experiences and teaching contexts. However, our theoretical perspectives are similar in that we are all committed to fostering successful student learning. Our teaming capacity has developed over a year and a half as we have examined how we individually view teaching and learning and have constructed a blended, common understanding of our curriculum. We met bi-weekly to plan our 8-hour class days. A number of overlapping and complementary but

historically distinct pedagogical perspectives contribute to the ideas that have guided our teaching team's work. Our curriculum-making has drawn primarily from Brookfield (1995) and Weimer (2002). We recognized that our individual strengths such as organizational approaches, curriculum design, adult development frameworks, knowledge of learning styles, and cooperative learning were complementary as we collaboratively constructed learning experiences for our 65 practicing K-12 teachers.

The team agreed to one-on-one semi-structured interviews of about one hour each, conducted by Dawn Renee Wilcox, a doctoral candidate working with Anastasia in the Educational Leadership program. Dawn Renee asked questions within three main domains: (1) our prior experiences in team teaching, (2) our perceptions of working on the team, and (3) our perceptions of self in relation to the team. Additionally, Mary was asked questions about how she understood her role as team leader, particularly as it related to inducting new faculty. Interviews were recorded using a digital voice recorder with audio taping as a back up. The computer transcribed the recording but Dawn Renee worked to clean the transcriptions for accuracy while she listened to the audio recording of each interview.

All research team members read the interviews and met to discuss their first impressions. As a research team, we met frequently to share our analysis of the interviews and to discuss the themes we identified. Dawn Renee created a data display of transcript statements coded in categories that was compared with faculty analysis and served to validate and check our themes. We collapsed and renamed themes that addressed the same findings and revisited transcripts to consider whether there was substantial support for other themes identified.

### **3.2 Findings of Study Two**

The data analysis resulted in two overarching themes: 1) working together, and 2) layers of transparency. We agreed to use Weimer's (2000) conceptualization of learner-centered teaching as the theoretical framework on which to build. Furthermore, we constructed our understandings together and the outcome has been an integrated curriculum of critical pedagogy and learner-centered teaching. We negotiated amongst ourselves to find a workable place to situate our newly emerging sense of learner-centered teaching. We now share a language to theorize our work, even though we come from different disciplines, perspectives, and backgrounds.

### 3.2.1 Working together

Our team was formed to teach the Class of 2005. Mary had previously worked with two classes. She experienced different styles of collaboration and wanted to make this teaming experience explicit in terms of working styles, individual needs and preferences, and support for individual research interests. Leo had participated in five previous classes where he experienced different styles of collaboration and was committed to making our teaming experience productive and responsive to individual learning preferences so that each member could feel valued. He is appreciated by his teammates for his role as program historian and mentor of their writing. Prior to Karen's arrival, Leo and Mary discussed the need to create an inviting and supportive team. Karen was hired only two weeks prior to our first summer two-week intensive session. She was committed to participating fully in our team even though she had a fast induction and had to work with an already formulated curriculum.

During this time, Mary and Leo worked to articulate the IET experience to Karen and to welcome her as a newcomer. From the beginning of our work as a team, there appeared to be a community of practice in which each of us was supported, valued, and mentored. Wenger (1998) states: "Newcomers must be granted enough legitimacy to be treated as potential members" (p. 101). Karen spoke of her entry into this academic community, of her need to be the right person and "not to disappoint them" and to "have something valuable to contribute." She remarked that "it's an environment that's easy to make mistakes in and easy to ask questions." We spent a great deal of time talking with each other about what each of us must have in order to feel valued and capable of producing high quality work.

### 3.2.2 Layers of transparency

This section describes our commitments to be transparent with one another through critical dialogue and learning preference tools; modeling our pedagogy to our students; and applying our new understandings in research and writing. Crafting shared expectations together deepened our respect and trust for one another and allowed us space and freedom to engage in our own professional development.

1. *Critical dialogue.* Critical dialogue was a central feature of our teaming collaborations. Our shared expectation as team members was that we would help each other analyze and formulate our arguments and ideas to deepen individual understandings. A strength of our team was the ability to hear and learn from each other and talk about pedagogy from our diverse perspectives. We valued the processes of critical dialogue. Mary

said, “if Leo or Karen or I bring an idea to the table the three of us sit there and we play with it and we mold it and we shape it and we always to connect it back to ... purpose.” According to Leo, “it makes me feel like a valued member if I know both that I’ll be listened to and that I’ll be challenged.” Karen reported “having looked at it through their eyes and really seeing it differently than I would have ever seen it on my own.” Critical dialogue refined and moved our thinking forward, which we believe has made us more effective teachers and colleagues.

2. *Learning preference tools.* We often used learning preference tools to discuss our work and to acknowledge our individual contributions. We used multiple learning preference tools (Myers-Briggs Type Indicator [MBTI], True Colors, Multiple Intelligences, and adult development), and these helped us understand each other more deeply. These tools allowed us to ask probing questions without offending each other as we grappled with our own and team understandings. For example, we used the MBTI in our teaching; this gave us a way as a team to talk about our preferences. Karen needed to be logical and linear. Leo preferred to write out a justification for an assignment before he talked about it. Mary liked to vary the learning experiences for the students and the organization of details for a class day. Without drawing upon these tools, individual preferences could have resulted in irritations during collaboration. Working within an explicit acknowledgement of our preferences created a safe environment for us to stretch, grow, and question ourselves as a new layer to our professional development.
3. *Modeling our pedagogy with students.* Together we used Weimer’s (2000) writing on learner-centered teaching as a framework and language to craft pedagogy. Learner-centered pedagogy addresses the importance of making instructional decisions, processes, and feedback visible to students. We felt that we would be remiss not to share our collaborative processes and outcomes with our students. We are committed to modeling collaboration and action research on our teaching practices. Leo stated: “[W]e very much reflect the process because we will say this is what we’re doing and let us tell you the conversations it took to get to this place...this is what we’ve agreed on and this is where we disagreed and these are the compromises.” We overtly model the process for students because we want them to know that we are doing what we are asking them to do.
4. *Research and writing.* Early in our teaming experiences we talked about conducting joint research studies and writing about curriculum development. As a team, we systematically collected data to document our work; we frequently shared individual and collaborative writings with each other and gave each other productive feedback. We held

ourselves accountable to the critical inquiry and reflection that we expected of our students. For example, we required our students to participate in writer's workshops on all of their written work; as a team we also supported each other's writing through critical feedback. Karen reported: "Leo challenges me to really take time to write and that's been a huge professional leap for me." Mary stated: "we are all very much aware of what each other is working on and we all also try to figure out how we can support each other." We consider the role of critical friends working in a safe environment essential to our professional goals and development.

### **3.3 Impact of Study Two on Faculty Professional Development**

This study explored how one diverse collaborative faculty teaching team constructed a language of critical dialogue, use of learning preferences, and modeling, and the impact of this on our professional development. An expectation of being critically reflective colleagues supported individual teaching, research, writing, and professional development. Through the process of creating a learner-centered curriculum to enhance students' professional development, we challenged our own assumptions, teaching methods and theoretical understandings. Through the process of modeling and studying our processes and sharing our thinking and decision making about our curriculum, an unexpected element to our professional development emerged, namely, a finely crafted integrated curriculum of critical pedagogy and learner-centered teaching that substantially impacted our teaching, learning, and research agendas. This team collaboration has resulted in the development of new energy, direction, and voice in our learner-centered teaching.

## **4. CONCLUDING DISCUSSION**

Collectively, the two studies provided important data to assess working in teams in teaching and teacher education. This beginning work highlights how working on teams encompasses professional renewal and informs program development. Inservice teaching teams practiced knowledge-building through action research, developed perspective-taking skills, and transferred their understandings of collaboration to their further educational endeavors. This research suggests that effective teamwork involves commitment to quality in curriculum development, a dedication to dialogue and critique, and a willingness to listen, value each other, and learn from and

with each other. The two studies reveal that these components of effective teamwork pertain to both inservice teachers and university faculty. The fact that the components are articulated in the program's principles of practice and have been found to be useful in the practices of a sample of alumni and faculty draws attention to the need for more research in this area for program evaluation. Since both studies involved a cross-section of alumni and faculty, it is unclear whether these components are context specific or universal. Yet understanding how teams develop these components would be useful to other teams and worthy of further study.

As a constantly transforming program, we often talk about the many things we want for IET. We wonder how we can build upon the expertise of our faculty both within a team and across teams to promote learning for teachers while we also build each other's teaching repertoire in a non-competitive atmosphere. Several faculty have noted that the program's resilience and sustainability is due to a strong foundational ideology that has withstood the challenges of having a diverse group of faculty. However, it is our contention that long term resilience and sustainability of a collaborative program such as ours is possible only if we use effective collaborative processes to revisit, re-envision, and reconstruct a core set of beliefs and principles of practice regarding our collaboration and document our work in writings such as this one. The experience of the faculty team involved in Study Two indicates the power of that approach and the importance of continued study and program-wide sharing. We are encouraged by the support we offer each other in this exciting work. As we continue to learn, we have faith that the best *is* yet to come through collaboration.

## ACKNOWLEDGEMENTS

We thank the IET alumni who participated in this research and whose work continuously informs our teaching and program development.

## REFERENCES

- Brookfield, S. D., 1995, *Becoming a Critically Reflective Teacher*, Jossey-Bass, San Francisco.
- Calderhead, J., and Shorrock, S. B., 1997, *Understanding Teacher Education: Case Studies in the Professional Development of Beginning Teachers*, The Falmer Press, London.

- Clandinin, D. J., 1993, Learning to collaborate at the university: Finding our places with each other, in: D. J. Clandinin, A. Davies, P. Hogan and B. Kennard, ed., *Learning to Teach, Teaching to Learn: Stories of Collaboration in Teacher*, Teachers College Press, New York, pp. 177-186.
- Darling-Hammond, L., 1993, Reforming the school reform agenda, *Phi Delta Kappan*, 74, 761.
- DeMulder, E. K., and Rigsby, L. C., 2003, Teachers' voices on reflective practice.
- Diez, M. E., and Blackwell, P. J., 2002, Collaboration for teacher development: Implications for the design and implementation of advanced Master's programs Washington, DC: National Council for Accreditation of Teacher Educators. ERIC Document Reproduction Service Report No. SP 041 164 ED 470 234
- Fullan, M. G., with Stiegelbauer, S., 1991, *The New Meaning of Educational Change* (Second Ed.), Teachers College Press, New York.
- Gerow, S., 2001, Teachers in school-based teams: Contesting isolation in schools, in: H. Sockett, E.K. DeMulder, P. LePage, and D. Wood ed., *Transforming Teacher Education: Lessons in Professional Development*, Bergin and Garvey, Greenwood Publishing.
- Goodlad, J., 1994, *Educational Renewal: Better Teachers, Better Schools*, Jossey-Bass, San Francisco.
- Kayler, M., 2004, Portfolio Assessment and Teacher Development, *Academic Exchange Quarterly*, 8:265-274.
- Kayler, M., Samaras, A. P., DeMulder, E., Newton, L, and Rigsby, L., 2003, *Leading Change: A School Commitment to Student Learning*, National Board for Professional Teaching Standards Conference, Washington, D.C.
- LaBoskey, V., Davies-Samway, K., and Garcia, S., 1998, Cross-institutional action research: A collaborative self-study, in: M. L. Hamilton, S. Pinnegar, T. Russell, J. Loughran, J., and LaBoskey, V., ed., *Reconceptualizing Teaching Practice: Self-study in Teacher Education*, Falmer Press, London, pp. 154-166.
- Lave, J., and Wenger, E., 1991, *Situated learning: Legitimate Peripheral Participation*, Cambridge University Press, Cambridge, UK.
- Noddings, C., 1992, *The Challenge to Care in Schools: An Alternative Approach to Education*, Teachers College Press, New York.
- Rosenholtz, S. J., 1989, *Teachers' Workplace: The Social Organization of Schools*, Longman, New York.
- Samaras, A. P., 2004, Learning zones: Potentials for cognitive change in teacher education programs, Invited talk, University of Hawaii, Department of Education, Honolulu, Hawaii.
- Samaras, A. P., 2002, *Self-Study for Teacher Educators: Crafting a Pedagogy for Educational change*, Peter Lang, New York.
- Samaras, A. P., and Gismondi, S., 1998, Scaffolds in the field: Vygotskian Interpretation in a Teacher Education Program, *Teaching and Teacher Education*, 14: 715-733.
- Samaras, A. P., Taylor, N. E. and Kelly, B., 1994, Teachers teaching teachers, *Momentum*, 25: 67-71.
- Schön, D. A., 1983, *The Reflective Practitioner: How Professionals Think in Action*, Basic Books, New York.
- Sockett, H., DeMulder, E.K., LePage, P., and Wood, D., ed., 2001, *Transforming Teacher Education: Lessons in Professional Development*, Greenwood Publishing: Bergin and Garvey.
- Stein, M. K., Schwan Smith, M., and Silver, E. A., 1999, The development of professional developers: Learning to assist teachers in new settings in new ways, *Harvard Educational Review*, 69: 237-269.

- Sykes, G., and Darling-Hammond, L., 1999, *Teaching as the learning profession: Handbook of policy and practice*, Jossey-Bass, San Francisco.
- Vygotsky, L. S., 1978, *Mind in society: The development of higher psychological Processes*, in: M. Cole, V. John-Steiner, S. S. Scribner and E. Souberman, ed., Harvard University Press, Cambridge, MA.
- Weimer, M., 2002, *Learner-Centered Teaching: Five Key Changes to Practice*, Jossey-Bass, San Francisco.
- Wenger, E., 1998, *Communities of Practice: Learning, Meaning, and Identity*, Cambridge University Press, Cambridge.