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Using Activity Theory to Identify Contradictions and Tensions in Teacher Professional Development

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Abstract

This study examined social structures that complicate teacher professional development within the context of university and school partnerships in a Western state. Semi-structured interview with participants was the primary data source for conducting an activity systems analysis comparing teacher professional development activities with school district and university professional development activities. The findings of the study indicate that teachers' motivation and goals for participating in professional development are not in alignment with their school district and universities that make partnership agreements and provide teachers with professional development. This misalignment contributes to various sources of tensions that can become an obstacle for teachers to improve their classroom practices through curricular-based interventions.

Both K-12 schools and universities feel hard-pressed by the demands of standards-based educational reform (Delandshere & Petrosky, 2004; Gore, Griffiths, & Ladwig, 2004). Such demands have been fuelled by the public perception that both teacher education programs and teachers themselves are inadequate and responsible for the failure of schools in the United States (Kincheloe, 2004). Past research has emphasized that the effectiveness of a classroom teacher is related directly to his/her preparation and qualification (National Center for Education Statistics, 1999), and as a result, universities have been called upon to improve the quality of teacher education (Gore, Griffiths, & Ladwig, 2004).

For several decades, universities and schools have worked to develop and maintain partnerships that provide relevant and meaningful professional development opportunities. More than ever, teacher professional development through K-12 school and university partnerships is recognized as a critical process in school reform for renewing classroom and university practice, changing school culture, and improving student achievement (National Center for Education Statistics, 2001). However, maintaining productive relationships between schools and universities is often challenging.

Despite the promises of partnership-based professional development taking an instrumental role in school reform, there have been many instances when it failed to provide means for teachers to change classroom practices to better meet student needs (Guskey, 1986,, 2002). In order to maximize the potential benefits of partnership-based teacher professional development, sociopolitical structures that trigger cultural conflicts between K-12 schools and universities need to be addressed (Abadiano & Turner, 2004; Yamagata-Lynch & Haudenschild, 2005). Much potential goes unrealized because these conflicts frequently result in distrust or misunderstanding between teachers and university personnel (Kohn, 1999; Teitel, 1998).

When promoting a culture of teacher renewal and school improvement, professional trust among all participants is essential (Hargreeves, 2002), and partnership members need to create a common vision that promotes collaborative activities that facilitate the merging of theory and practice (Teitel, 1998). In order for professional development to have any lasting effects, a completely new culture needs to evolve out of existing cultures in and between K-12 schools and universities (Prater & Sileo, 2002).

Although educational research has identified key ingredients of successful partnerships, it has not addressed the sources of conflict between universities and K-12 schools. Furthermore, there is a lack of research on how those conflicts affect partnership-based professional development activities. These shortcomings in educational research and development have prompted schools and universities to create one professional development model after another, and although they may have short-term school reform effects, they ultimately fail to bring systemic influences to classroom teaching beyond the initial period of excitement or the life of grant monies (Fishman, Marx, Blumenfeld, Krajcik, & Soloway, 2004). The purpose of this study was to conduct a qualitative investigation to identify how the sociopolitical structures in school-university partnership bring conflicts to teacher professional development activities when they are attempting to improve classroom practices. This study addresses structures that drive cultural conflicts in professional development programs rather than trying to identify yet another "effective" model.

Conflicts between Universities and K-12 Schools

Extant literature is replete with examples of disconnects between universities and K-12 schools in partnerships, clearly underscoring rifts in assumptions, perspectives, and organizational practices. Often, school districts and universities experience trouble satisfying institutional requirements while meeting teachers' individual needs and professional

development interests (Little, 1989). For example, teachers report a preference for one-day workshops based training in an area of their own interest rather than an area identified by their school district or by a university (Supovitz & Turner, 2000). This is contrary to findings that suggest that teacher training programs are more likely to be successful in changing classroom practices and culture when they are sustained and intensive (Khourey-Bowers, Dinko, & Hart, 2005; National Center for Education Statistics, 2001; Supovitz & Turner, 2000) and integrated into district- or school-level strategic planning (Prichard & Marshall, 2002). Additionally, when a new, well-intentioned professional development program is presented to teachers, from school districts or universities it complicates their work lives by introducing added expectations, requirements, and deadlines on top of daily teaching activities (Yamagata-Lynch, 2003a).

In many cases, partnership-based research conducted by university faculty does not have results relevant to teachers' daily classroom activities and student achievement (Teitel, 2003). When they are relevant, the educational innovations do not always have systematic implementation strategies that will allow them to become everyday classroom practices (Blumenfeld, Fishman, Krajcik, & Marx, 2000). In other words, the knowledge faculty bring to schools through partnerships is in many cases unusable for classroom teachers. Consequently, university faculty involvements in partnerships often fail to inform classroom practice in both the short- and long-term.

A significant conflict between schools and universities stems from disparities in beliefs between teachers and faculty regarding what is legitimate theory and practice (Perry & Power, 2004). University faculty rely upon theory derived from research, while teachers depend upon their own classroom experience and that of their colleagues in identifying good teaching practices. Cochran-Smith (2000) describes this conflict within the framework of the "knowledge question, learning question, and outcome question" and points out that, in the teacher education

community, there is no agreement on what teachers ought to learn, how teachers ought to learn, and how the effectiveness of teacher education programs ought to be measured.

The standards movement only exacerbates this conflict by adding another variable in defining teacher knowledge, learning, and outcomes (Cochran-Smith & Lytle, 1999). Unfortunately, there is currently no consensus among schools, universities, and policy makers on what defines teacher quality (Cochran-Smith, 2005). The lack of consensus contributes to uncertainties regarding how to best implement partnerships and teacher professional development (Perry, Komesaroff, & Kavanagh, 2002). Under these circumstances, it is unavoidable that cultural conflicts arise between schools and universities.

Without a solution to the cultural conflict, many universities and schools enter partnership agreements with the absence of shared goals (Bacharach & Hasslen, 2001). The lack of joint commitment for meeting common partnership goals makes sustaining communication by itself an inordinate task (Edens, Shirley, & Toner, 2001; Snow-Gerono, Yendol-Silva, & Nolan, 2002). Unfortunately, many partnership efforts breakdown due to the lack of communication, but the communication problem is just a symptom to the greater problem of unresolved conflicts.

CHAT as an Analytical Framework for Professional Development Tensions

We used Cultural-Historical Activity Theory (CHAT), specifically activity systems analysis as the analytical framework in this study. Activity systems analysis is a supplementary qualitative data analysis tool for identifying human activity in its social context as the unit of analysis (Engeström, 1993). It is useful for examining the social influences involved in networks of human activity. It allows researchers to map out relationships of various elements within research participant activities. It also provides a method for examining how groups of seemingly individual human actions are interconnected, and how these interactions generate conflicts.

Activity systems analysis is based on Vygotsky's work on mediated action (Barab, Evans, & Baek, 2003; Cole, 1996; Cole & Engeström, 1993). This method of analysis became well known after Engeström's (1987) original conception and the wide circulation of his work through the publication of Cole and Engeström (1993) and Engeström (1993). Since then, Western researchers have applied activity theory to: (a) summarize organizational change (Barab, Schatz, & Scheckler, 2004; Engeström, 1993); (b) identify guidelines for designing Constructivist Learning Environments (Jonassen & Rohrer-Murphy, 1999); (c) identify contradictions and tensions that shape developments in educational settings (Barab, Barnet, Yamagata-Lynch, Squire, & Keating, 2002; Roth & Tobin, 2002); and (d) demonstrate historical developments in organizational learning (Yamagata-Lynch, 2003b).

The elements of activity systems, as shown in Figure 1, include subject, tool, object, rules, community, division of labor, and outcomes. The elements in the model represent specific, transactional aspects of human activity. Subjects are participants in an activity, motivated toward a purpose or attainment of the object. The term "object" has often been referred to as the goal of an activity, the subject's motives for participating in an activity, and the material products that subjects gain through an activity (Kaptelinin, 2005). Tools are socially shared cognitive and or material resources that subjects can use to attain the object. Informal or formal rules regulate the subject's participation while engaging in an activity. The community is the group or organization to which subjects belong. The division of labor is the shared participation responsibilities in the activity determined by the community. Finally, the outcome is the consequences that the subject faces because of their actions driven by the object. These outcomes can encourage or hinder the subject's participation in future activities.

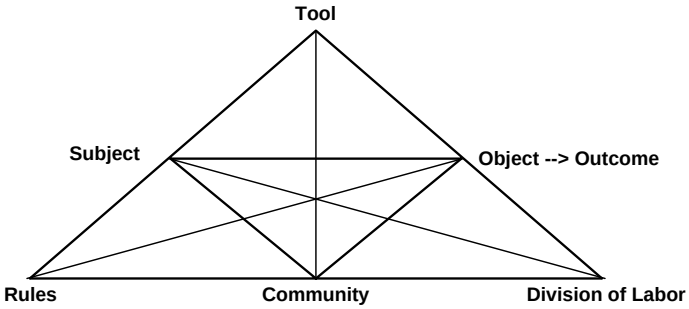

Figure 1. Activity System Model adapted from Engeström (1987).

One of Engeström's (1987) original motivations for developing this model was to allow researchers to identify the inner contradictions that impose tensions on participants' work settings and help them change the nature of an activity to overcome those tensions. When analyzing the various sources of tension, Engeström identified four levels of inner contradictions, described in Table 1. According to Engeström (1987; 1993), inner contradictions can be observed by researchers when they identify an activity that is central to their qualitative data analysis, and identify how that activity interacts and is affected by other related activities. This assumes that human activity does not exist in vacuum. Instead, it is interconnected with other activities that presents imbalances to the original activity that has the potential for instigating a change process (Center for Activity Theory and Developmental Work Research, 2004).

Primary contradictions occur when activity participants encounter more than one value system attached to an element within an activity that brings about conflict. For example, according to Supovitz and Turner (2000) professional development programs that are sustained and intensive have greater value for professional development coordinators for moving the school reform agenda forward. On the other hand, it may have minimal appeal to teachers because teachers see more value in one-day workshops or curriculum development based quick fixes to their local classroom issues. In these situations, school districts, universities, and

classroom teachers all share a common object for improving classroom practice, but they do not share the same values that define what type of professional development programs are most effective for achieving this common goal. This brings difficult situations to school districts and universities because teachers are more likely to choose not to be involved in sustained and intensive programs that are more likely to meet long-range institutional goals.

Table 1. Engeström's (1987) Four Levels of Inner Contradictions in Activity Systems.

Contradiction Level	**Engeström's Definition**
Level 1 Primary Contradiction	When activity participants encounter more than one value systems attached to an element within an activity that brings about conflict.
Level 2 Secondary Contradiction	When activity participants encounter a new element of an activity, and the process for assimilating the new element into the activity brings about conflict.
Level 3 Tertiary Contradiction	When activity participants face conflicting situations by adopting what is believed to be a newly advanced method for achieving the object.
Level 4 Quaternary Contradiction	When activity participants encounter changes to an activity that result in creating conflicts with adjacent activities.

Secondary contradictions occur when activity participants encounter a new aspect of an activity, and the process for assimilating this new aspect into their daily activity brings about conflict. For example, Yamagata-Lynch (2003a) found that when teachers volunteer to be involved in professional development programs, the expectations and requirements for work related activities increase. Teachers become responsible for meeting professional development expectations and requirements at the same time while they are managing their daily work related expectations at school. Therefore, professional development programs that are demanding of teacher time potentially become a burden on them for completing daily work-related responsibilities. Consequently, teachers face difficulties assimilating the new rules and division of labor brought upon by the professional development program into their daily routine.

Tertiary contradictions occur when activity participants face conflicting situations by adopting what is believed to be newly advanced methods for achieving the object. For example, a school district may identify a student achievement problem in math after analyzing the results from their fourth grade state standardized test scores. The district evaluates various solutions to the problem, and decides to implement a district-wide prescribed math program with new texts and teaching materials. Teachers are then required to attend training on this math curriculum package and implement the program in their fourth grade classrooms. The implementation of the new math program may take a minimum of 60-minutes of daily teaching time in the classroom, and require teachers to rearrange their lessons on other subject areas. In these types of mandated curricular program changes, teachers may not easily find connections between the new program and their everyday practices in the classroom. This may encourage teachers to resent the program while they are required to change their math teaching methods. Therefore, as suggested in Little (1989), professional development programs do not necessarily address school district needs and classroom teacher needs at the same time.

Quaternary contradictions occur when activity participants encounter changes to their activity that result in conflicts with adjacent activities. For example, the teachers in the previous example may find it very difficult to adjust their teaching of other subject areas so that the new 60-minute math curriculum package fits into their daily routine. Some teachers may have been accustomed to implementing interdisciplinary lessons where they blended math and science activities. However, once the math curriculum is set to a school district-wide package, teachers no longer have the time to engage students in interdisciplinary lessons; therefore, teachers will have to develop new strategies for teaching science.

Methodology

The participants in this study included elementary and junior high school teachers and administrators from a Western suburban school district that was in the early stages of building a partnership with a large university. There were seven participants, including two male principals, one female district professional development coordinator, and one female teacher and three male teachers. All of the above participants took part in this study on a voluntary basis.

Data collection followed naturalistic inquiry methods (Lincoln & Guba, 1985). The primary data collection methodology relied on two sets of semi-structured interviews. All seven participants volunteered to participate in the first interviews and four participants (one principal and three teachers) volunteered for follow-up interviews. We recorded and transcribed the interviews, and sent the transcripts to each participant for review.

Document analyses provided a secondary data source, which included partnership literature from the university, professional development brochures from the school district, and any classroom or professional development materials that participants provided during the

interviews. These data sets provided background information regarding the district and the nature of the school-university partnership.

We began data analysis with the constant comparative method (Glaser & Strauss, 1967). The goal of this analysis was to report on thematic findings that identified how teachers valued professional development, and how they thought it affected their job. We used descriptions of how professional development affected teachers' work as a starting point to identify the various levels of contradictions they face in professional development programs.

We identified initial thematic codes using NVivo 5.0, then conducted free coding of all interview transcripts. We began this process with the two researchers independently coding each transcript. Then we discussed how we coded each transcript and came to an agreement of each code. We then merged our codes and provided definitions of all relevant codes, eliminating redundancies. Once we identified the initial set of codes, we recoded the interview transcripts. We then identified overarching themes in the transcripts relevant to the research question. The actual act of writing the results section affected the way we concluded to the final themes; therefore, we went back to Nvivo to ensure our coding and thematic findings were consistent throughout.

We used Engeström's (1987) activity systems model to organize the findings according to object-directed activities, and map out the sources of systemic tensions in relation to those activities. Through this analysis, we intended to identify the sociopolitical structures in the teacher professional development environment that hinder the optimal facilitation of professional development programs. The specific research questions that we examined during the activity systems analysis included: (a) what sociopolitical structures in K-12 schools generate tension in teacher professional development? (b) what sociopolitical structures in universities introduce

tension to teacher professional development? and (c) what incompatibilities between the sociopolitical structures in K-12 schools and universities trigger cultural conflict between the two institutions?

Thematic Finding Results

Data from our thematic analysis suggest that teachers in the study valued professional development as a resource for: (a) initiating momentum for change in classroom practices, (b) collaborating with other teachers; (c) contributing to district initiatives; and (d) providing job security and monetary reward. When a workshop or a university course/degree program did not provide them with the above opportunities teachers were more likely to feel that they were participating in the program for seat time to earn points for their certification renewal rather than adding value to their work. Therefore, teachers were motivated to participate in professional development activities to improve their teaching and to maintain certification requirements.

Professional Development that Initiates Change

Study participants viewed professional development as a resource for bringing momentum to improve their teaching practices. Zach, a middle school teacher commented, "Professional development helps me in learning more about my profession…. It lets me…change a few things…. If I stay in a rut, I feel the kids aren't learning what they should be" (Zach, teacher interview, June 11, 2002). Zach further commented during the same interview, "I want to become the best teacher that there is…. I want the students to have the best." Zach and other participants felt that some of the professional development events they attend were excellent resources for identifying strategies to revise their teaching methods to meet student needs.

Teacher participants also appreciated professional development that encouraged them to change their practice by providing them with ready-to-use teaching materials or the time to develop new materials. For example, Paul, a middle school teacher, commented how he

appreciated district-level science professional development programs facilitated by teachers sharing lesson plans. During these events, Paul was introduced to lesson plans that fit the state core curriculum with first hand experience from teachers who already implemented the lesson. Paul remarked, "[The district] has been very good as far as having lesson plans that you can bring back. You know actual use in the classroom, develop new ideas..." (Paul, Teacher Interview, May 22, 2002).

Ken, an elementary school principal, reported that his teachers were very enthusiastic about curriculum focused professional development events even when they cut into teacher personal time, and even when the presenters did not have K-12 education background. For example, Ken discussed that he provided financial support for teachers who worked with the teacher organization to get training on new strategies for teaching math. The core group of teachers who received training from the teacher organization voluntarily organized inservice sessions for other teachers at their school. Ken commented, "…I supported them financially with purchasing some of the supplies….that they need, but they did the inservice, they did the teacher training and everything else for each other themselves" (Ken, principal interview, May 15, 2002). Ken spoke about another example where he contracted inservice sessions with book authors and illustrators from the business sector to work with his teachers and students on writing and pre-writing skills. He reported that his teachers were very receptive to the authors and illustrators because writing and pre-writing were areas of weaknesses in student test scores, and the inservice sessions focused on developing strategies to improve teaching methods.

Teacher participants and principals reported that professional development events that focused on concrete classroom-based curricular issues without expecting teachers to completely change their practice provided them with the most momentum to improve classroom practices. Teachers did not necessarily expect professional development activities to initiate a total

overhaul of their teaching. They found the most value in professional development that helped them fine-tune their teaching. For example, Susan, an elementary school teacher, observed, “The thing I like about professional development is it gives us a new view on old things…. We have to pick and choose what we can integrate and what we cannot” (Susan, teacher interview, May 28, 2002).

Unfortunately, not all professional development events focus on concrete classroom-based curricular issues. Ken pointed out that when his school district organized mandated professional development events, teachers often came back with mixed results. Some teachers found these events to be a great source of information, some found them to be review of what they already knew, and some found them to be irrelevant to their classroom situation. Ken further commented:

> …when [the district] plan an inservice, you plan it more abstract or more general, for the general teaching population. And yet as a teacher coming from A school or B school, they might have a specific need that they’re after. And they may not get that from the general [professional development program], that they would get from a more specific [program]. And so I think it’s just the nature of the beast, of the way it’s designed (Ken, principal interview, May 15, 2002).

Susan who works at Ken’s school commented how it was most frustrating when she attended a district mandated inservice program on balanced literacy for several required hours and it did not fit her classroom situation. She was aware that the state standardized test scores at her district indicated that there were student achievement problems in literacy. However, she commented how the mandated program did not fit her team teaching style and she did not see how she could have incorporated the techniques in to her teaching methods.

> I don't teach…reading. I teach the language part, and my partner and I when we team on Wednesdays, we go over how can we integrate what you're reading into what I'm doing? Or what I'm teaching in social studies into your reading…when I teach my Indian unit, she does Indian stories and we write poetry…and we do our artwork…And so, in the balanced literacy [program], what I found was it was very geared to the reading teacher, but not to any other subject. And so for me to take…14 hours of inservice that was not geared to anything I teach, was very hard (Susan, teacher interview, May 28, 2002).

Teachers agreed that professional development activities designed by school districts or by universities for a wide-range of audiences were more likely to be not curricular focused. Instead, these professional development activities focused on abstract general pedagogical principles that teachers needed to find opportunities to adapt to their classroom and infuse into their practice. In these events, teachers found it very difficult to identify concrete teaching strategies that they could bring back to their classrooms.

Professional Development that Supports Teacher Collaboration

Teachers reported that they appreciated professional development programs that allowed them to collaborate with colleagues. For example, at both the elementary and middle school in which this study took place, the principals organized a yearlong local professional development program that encouraged teachers to share ideas for changing classroom practices. Ken, the elementary school principal, replaced the weekly 40-minute morning faculty meeting with teacher professional development time. Teachers came to the meeting having read a short article, prepared for group discussion and reflection on the weekly topic. The articles were at times selected by teachers from news sources such as *Newsweek* or from the *The Master Teacher* training pamphlet set that Ken acquired for the school (for more information visit http://www.masterteacher.com/).

Mark, a teacher at Ken's school, reported that he uses ideas from *The Master Teacher* readings and incorporate them into classroom activities. He commented, "I take [*The Master Teacher* materials] personally…I try to work on the things that are taught in there" (Mark, teacher interview, July 12, 2002). He further discussed that not every entry in the series fit into his classroom situation, but there were sufficient articles with useful ideas for him to try out.

Similarly, Jack, the middle school principal, organized book chats that met throughout the year. Ten to twenty teachers read a selected book for the purpose of engaging in a dialogue about the book's central themes and classroom implications. Selected titles included *Reviving Ophelia: Saving the Selves of Adolescent Girls, The Right to Learn: A Blueprint for Creating Schools that Work*, and *Multiple Intelligences: The Theory in Practice*. Jack felt that inservice workshops often do not give teachers the opportunity to share their ideas, and in many cases teachers forget about the workshop content once they walk out the door. Jack believed that book chats in contrast provided opportunities for teachers to dialogue about broad pedagogical principles introduced in a book, and adapt those principles to local issues to find curricular-based implications.

Paul identified both formal and informal collaboration with colleagues as an essential form of professional development. He defined collaboration as "being able to just share ideas" with other teachers regarding the curriculum and students (Paul, Teacher Interview, March 27, 2003). Paul referred to the three-year new teacher-mentoring program as a formal district-level professional development that encouraged teacher collaboration. Paul was a mentor himself for two teachers in the building. In his interview, he discussed that it is important for him to have opportunities to share ideas with colleagues during informal meetings such as lunchtime. During such meetings, Paul often discusses with colleagues difficult student situations that require

coordination among teachers on how to address the matter. Paul also reported that he relies on his colleagues to share ideas on how to interpret and implement the state core curriculum.

Susan shared views similar to Paul's regarding the value of teacher collaboration for understanding students and clarifying the state core curriculum. She commented that she collaborates with her colleagues to learn "about my students and to confirm areas of curriculum…to help me know what background my students have and what background they don't have" (Susan, Teacher Interview, March, 28, 2003). She expressed that she does not hesitate to ask another teacher how they have interpreted the core curriculum and how they teach the curriculum content to their students. There was an agreement among teacher participants that they need more time to share ideas with colleagues on curricular focused issues.

Professional Development that Contributes to State and District Initiatives

Teachers in this study felt that professional development that helped them contribute to district initiatives was valuable to their career. These initiatives included contributing to state agencies for creating materials that their school district can later use, and obtaining professional certifications that helped their school district to comply with federal regulations. Teachers developed a sense of pride when they knew that their participation in a professional development programs contributed to the overall initiatives of their school district.

For example, Paul was selected to write test questions for the new state science exam based on the new core curriculum. He was honored to be selected as one of the test authors. He also viewed this experience as a boost for his professional development because he was given the time to collaborate with other teachers to examine the new core curriculum in depth. Paul further commented that writing the test questions was a demanding task, reminding him how students often feel in the classroom. He remarked that this was the most valuable professional development experience for the school year "because I'm not a real good writer…. [Writing the

test questions] would challenge me out of my comfort area. You know we put our kids in that situation all the time" (Paul, Teacher Interview, May 22, 2002).

Zach obtained an ESL endorsement through a university program supported by the school district. The school district supported teachers who volunteered to obtain an ESL endorsement because the district was not in compliance with federal regulations requiring teachers of minority students to have ESL credentials. Zach obtained his endorsement by attending university courses one night a week for two years. The school district supported him by paying his tuition and providing him with a stipend. This program was very taxing on Zach's time, but he enjoyed participating in it because he was rewarded properly and was able to contribute to the district goal for meeting the federal regulations. Additionally, he was able to integrate what he learned from his ESL endorsement program into other areas of teaching. Zach commented, "I have incorporated some ESL things within my classroom because I will have…resource students…I think that ESL type of things can help with the resource students too" (Zach, Teacher Interview, June 11, 2002). However, he did comment that he did not feel every topic that was included in his ESL courses were necessary. Instead, Zach thought that there were some topics included in his courses because the university had to meet the contact hour requirements for three-graduate-credit course.

Professional Development that Provides Job Security and Salary Increase

Teachers in this study reported that professional development helped to achieve necessary promotions and salary increases. According to Megan, the professional development coordinator, and Susan, the state teacher licensing system required teachers to earn one hundred points per year in professional development activities. The professional development events that the state office accepted for license renewal included: (a) college/university courses and/or state approved inservice (18 points per 1 semester credit); (b) workshops, symposia, conferences,

district courses, or staff development (1 point per clock hour); (c) service in professional activities in an educational institution (1 point per clock hour); (d) service in a leadership role in a professional organization (maximum of 10 points per year); (e) education research and innovation; (f) other professional development activities; and (g) substituting (State Educator License Renewal Brochure, issued May 10, 2000).

Additionally the school district in which this study took place applied the points teachers earned for license renewal toward advancement and salary increase requirements. Paul observed, "The state offers courses for ongoing teacher certification that is a direct correlation to…what teachers need. And also a direct correlation to rewards" (Teacher Interview, May 22. 2002). Promotion and salary increases were very important for teachers to gain job security; therefore, they carefully chose what professional development to attend based on their career needs.

Several teachers commented and complimented the professional development catalog that the school district published every quarter. The catalog was arranged by topics and how each class addressed the state core curriculum. There were additional sections on how many professional development points teachers would earn and if any of the courses would meet specific certification needs. With this type of information, teachers were able to find out how each course would affect their retention, promotion, and salary increases. During the May 28, 2002 interview, Susan said that university courses lacked this degree of direct alignment with her professional needs. The university course catalogs she received did not provide any information on how each course would benefit her career.

Although job security was one of the driving forces in the selection of professional development events, teachers also weighed how much time and money each event was going to cost them. Teachers had to pay a minimum of $15 registration fee for most professional development events offered by the school district. There were some district-mandated events that

teachers were paid to attend, but this was very rare. Often, district organized professional development took place during weekends, after school hours on weekdays, and over the summer, cutting into teacher personal time. University courses were far more expensive than district events, and many took place on weeknights on university campuses, following the long hours that teachers work at school. Some teachers commented that it was just too expensive to attend university courses and it took up too much of their personal time.

Activity Systems Analysis Discussion

The activity systems analysis resulted in identifying two object-directed activities that interacted with one another and influenced teacher professional development. The activities consisted of one initiated by individual teachers as the subject and another initiated by school districts and universities as the subject. Figure 2 and Figure 3 illustrates the graphic summary of these activities based on Engeström's (1987) model. The interactions between these activities contributed to creating conflicts between teachers and coordinators of professional development such as school districts and universities.

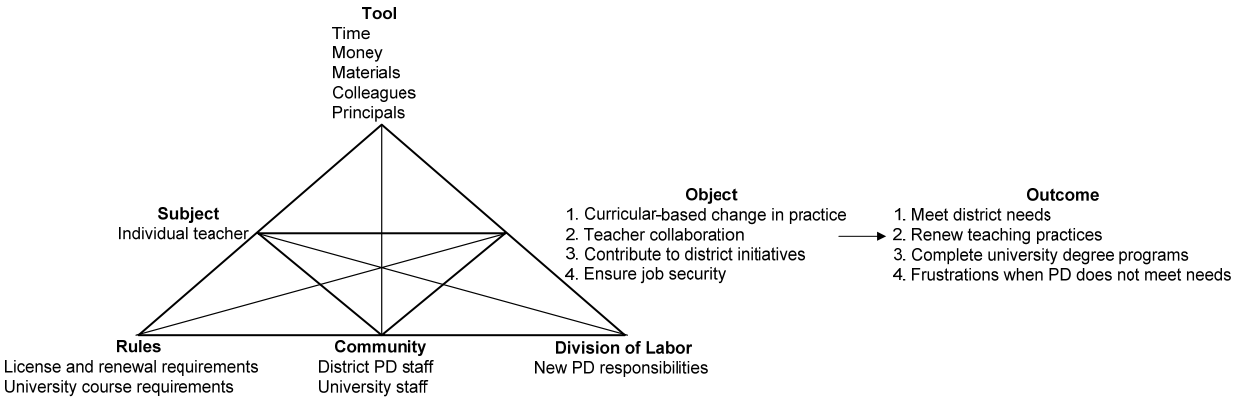

Figure 2. Teacher Professional Development Activity System.

We extrapolated both activity systems from the current study data. Participants of this study consisted of teachers, principals and a school district professional development coordinator. Therefore, the school district and university professional development activity

system in Figure 3 emerged from our participants' report on school district and university professional development activities.

In Figure 2, the subject is individual teachers who chose to participate in professional development activities. These teachers chose to participate in these activities because of the following objects: bringing curricular-based change in practice, engaging in teacher collaboration, contributing to district initiatives, and ensuring individual job security. The tool that helped these teachers included: time, money, relevant classroom materials, colleagues, and school principals.

The rule that determined how teachers participate in professional development activities included both state licensing, renewal requirements and course expectations when teachers were in university-based courses. The community that supported teachers included both district and university professional development staff. The division of labor was new responsibilities teachers found in professional development activities, for example, creating test questions, creating new lesson materials, and fulfilling reading assignments for university courses or for local book chats.

The outcomes of teacher participation in professional development activities included both positive and negative results. As positive outcomes, teachers found that they were contributing to district needs, continually renewing their practice, and completing university degree programs. At the same time, there were teachers who reported that they experienced frustrations from professional development programs that did not meet their classroom-based

curricular needs.

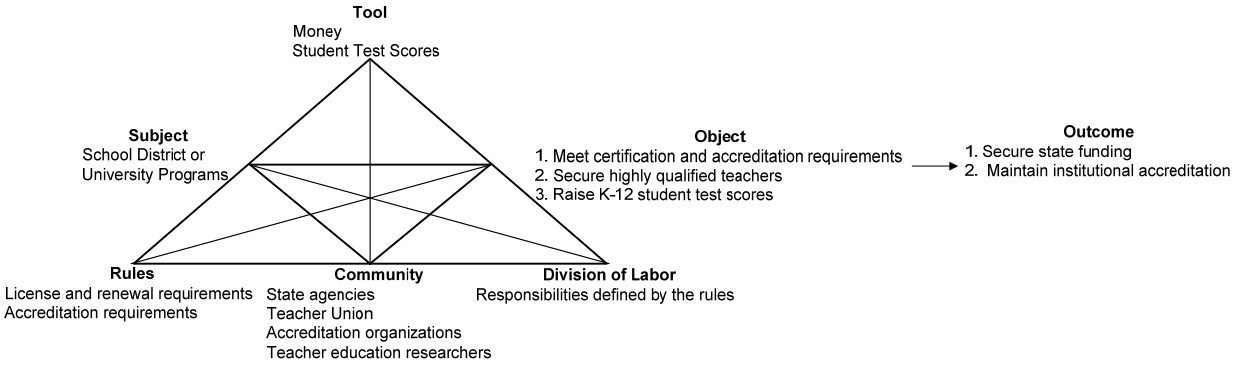

Figure 3. School District and University Professional Development Activity System.

In Figure 3, the subject is school districts or universities that facilitated professional development programs. These institutions provided programs to teachers so that they attain the following objects: meet state teacher certification and accreditation requirements, secure highly qualified teachers in the school district, and raise K-12 student test scores. The tools that school districts and universities used to develop professional development programs and degree programs were money and student test score results.

The rules that guided the school district's and universities' decisions regarding professional development included: state licensing and renewal requirements and institutional accreditation requirements. These elements in the rule component defined the division of labor in university professional development programs. The community that supported this work included state agencies, teacher union, accreditation organizations, and teacher education researchers. The outcomes that the school district and universities found in professional development were securing state funding and maintaining institutional accreditation status.

By examining the activity systems in Figure 2 and Figure 3 it becomes apparent that teachers' object for participating in professional development and the district and university object for facilitating professional development are not aligned with each other. This indicates that teachers in this study had very different motives for participating in professional

development compared to school districts and universities that facilitated them. Teachers looked for specific content-based curricular improvement as one of the main reasons to participate in professional development. On the other hand, school districts and universities were interested in general interventions for entire grade levels, subject areas, or schools that addressed student achievement problems and individual teachers could apply to the classroom.

Furthermore, school districts and universities were often in positions to enforce the rule and division of labor of professional development in the form of policy decisions spelled out by state agencies and accreditation organizations. The rules and division of labor did not necessarily allow professional development programs to focus on specific curricular-based classroom interventions even though that was what teachers found as one of the most valuable object. Furthermore, school districts could not dismiss these rule and division of labor because they played a large role in determining the state funding and resources allocation.

Inevitably, the misalignment between the objects of teachers and school district/university professional development activities created several inner contradictions. These contradictions included disagreements about: (a) benefits that teachers gained from professional development programs; (b) overwhelming responsibilities and expectations teachers were required to juggle in sustained and intensive professional development programs; (c) new approaches to teaching that did not fit into classroom practices; and (d) ripple effects from changing pedagogical practices in one area of teaching that fed into other areas. Table 2 summarizes these disagreements according to Engeström's four levels of inner contradictions.

The inner contradictions bring several tensions to teacher professional development. Figure 4 shows Figure 2 with the tensions that teachers face when participating in professional development. These tensions include: (a) continuing professional development with competing value systems; (b) continuing professional development while juggling multiple regulations and

requirements; (c) continuing professional development after undesirable outcomes; and (d) adjusting overall instructional practices in the classroom while accommodating new approaches to teaching.

Table 2. Four Levels of Inner Contradictions Observed in this Study.

Contradiction Level	**Observations from this Study**
Level 1 Primary Contradiction	Individual teachers, school districts and universities do not share a common value system on how to spend time and money on professional development activities.
Level 2 Secondary Contradiction	School districts and universities do not account for new responsibilities introduced to teachers from sustained and intensive professional development programs that bring hardship to meet other daily teaching responsibilities.
Level 3 Tertiary Contradiction	New methods for teaching introduced in professional development programs do not necessarily fit into teachers daily classroom practices.
Level 4 Quaternary Contradiction	One area of change to teachers' daily classroom practice interacts with other activities in the classroom and necessitates more change.

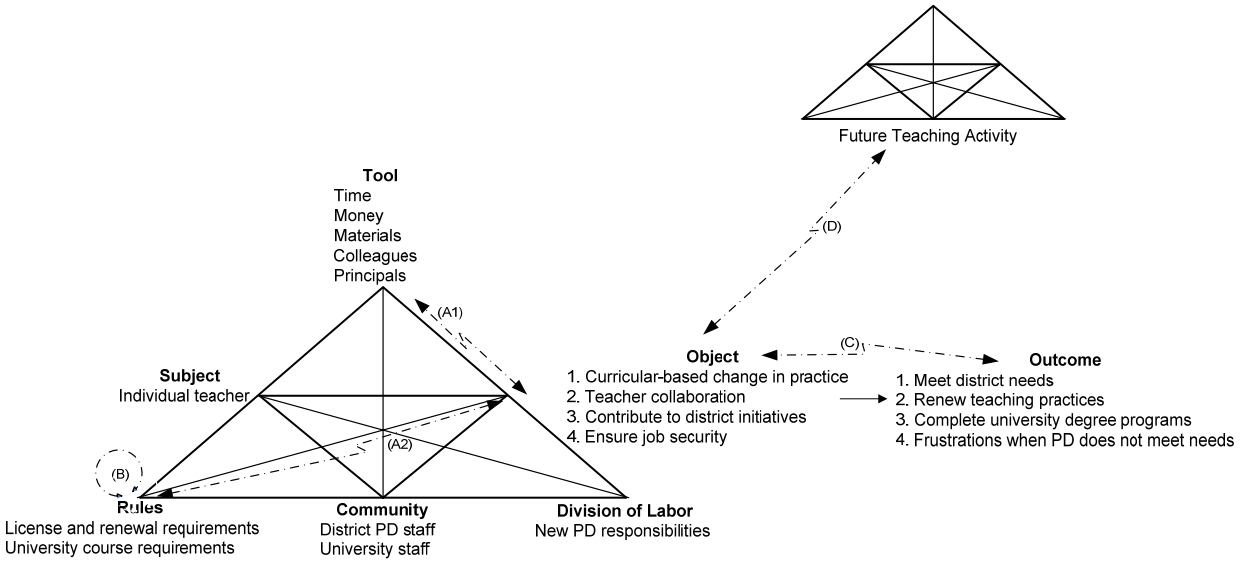

Figure 4. Tensions in Teacher Professional Development Activity System.

Tension A 1 and A 2: Continuing Professional Development with Competing Value Systems

The misalignment in the values attached to professional development between teachers, school districts, and universities affected teacher professional development activities. Tensions A 1 and A 2 in Figure 4 between the tool and object and the rule and object represents the influences of the misalignment in professional development outcome values and is a result from the primary contradiction of this study. Both tensions introduced difficulties to teachers who wanted to infuse curricular-based innovations to their teaching.

Teachers in this study worked with very limited resources in terms of time, money, and curricular resources on a daily basis. This was also true when teachers participated in professional development activities. When school districts or universities provided monetary and human resources for professional development programs they were funneled to programs that would help meet state license and renewal requirements and institutional accreditation requirements. Therefore, teachers in this study struggled to make the most out of their situation by attending events that school districts and universities rewarded them to gain job security even

when they felt that these activities did not help them develop curricular focused classroom interventions.

Tension B: Continuing Professional Development While Juggling Regulations and Requirements

Participants from this study had to adhere to regulations and requirements that were associated with maintaining their jobs and fulfilling professional development course expectations. This brought difficulties to teacher professional development activities and is represented as a circular tension in Figure 4 as Tension B in the rule component. This tension was a result from the secondary contradiction of this study, and is circular because the elements within the rule component competed against one another. Tension B introduced further complications to teachers' already limited time for developing new teaching methods and materials that would help student learning.

Similar to Yamagata-Lynch's (2003a) report, teachers in this study had to meet multiple sources of job related expectations while participating in professional development activities. This created conflicting situations and complicated teachers' work lives. For example, when teachers participated in semester long university courses, course activities were based on the university calendar and did not reflect the K-12 school calendar. Therefore, teachers in this study reported that there were times during the year that they found it very difficult to maneuver the workload associated with the course while surviving the demanding expectations are their schools.

Tension C: Continuing Professional Development after Mixed Outcome.

Several teachers in this study reported that they had been in too many required professional development events that did not necessarily meet their immediate curricular-based needs. Teachers expressed frustrations when they were expected to improve their teaching after participating in professional development activities that did not address instructional issues in

their classroom. Tension C in Figure 4 between the object and the outcome represents this teacher frustration, and resulted from the tertiary contradiction of this study. This tension made some teachers very leery of attending school district or university based professional development activities that they knew were not going to assist them develop classroom based interventions.

As a result, teachers were put in a situation where they had to continue attending mandatory professional development events even when the outcomes did not meet their needs. In most cases, these activities met requirements for the school district and universities institutional framework. For example, within a 15-week university course Zack felt that there were some topics in the course irrelevant for his ESL endorsement. These topics seemed to him as unnecessary embellishments that allowed the university to offer the course in three-credit-hour form. This finding is in agreement with Little's (1989) report that many school districts and universities find it challenging to satisfy both teacher and institutional needs through professional development programs.

Tension D: Adjusting Overall Instruction to Accommodate New Approaches to Teaching.

When teachers completed professional development programs that introduced them to new teaching methods, which involved more than a minor replacement of one curricular activity with another, it required them to adjust their overall teaching methods. Tension D in Figure 4 between the object of teacher professional development activity and future teaching activity represents this tension. This tension resulted from the quaternary contradiction of this study. Tension D had interesting implications where some teachers refused to change any part of their teaching if it required a complete overhaul, and some teachers decided to apply best practices into more than one area of their teaching. For example, when Susan attended the district mandated balanced literacy program she decided that the method did not fit into her teaching

style and therefore she dismissed the entire method. On the other hand, Zach who obtained an ESL endorsement from a university program recognized that many of the principles he learned in his courses were general best teaching practices that he chose to implement in his classroom for non-ESL students as well.

We found that many teachers when given the choice, engaged in an analysis to identify professional development activities that exposed them to curricular interventions that were easier to assimilate into their teaching. Several teachers favored activities that provided them with quick instructional interventions rather than interventions that required them to change large portions of their teaching. This is not a surprising finding because it is very similar to Supovitz and Turner's (2000), report that teachers prefer to engage in short term professional development activities in their own interest areas.

Implications

We began this research with to investigate how sociopolitical structures in school-university partnerships bring conflicts to teacher professional development activities; however, our findings indicate that the conflicts were not necessarily between schools and universities, and instead were between teachers and professional development coordinators including both school districts and universities. Teachers, school districts, and universities have very different motivations for participating and facilitating professional development activities. As a result, teachers in this study found professional development obstacles not necessarily from their interactions with universities, but from the requirements that they have to meet for maintaining their licensing status or earning a promotion.

Teachers wanted to be involved in sustained and low-key curricular focused professional development activities that encourage collaboration with colleagues, while school districts and universities wanted to expend resources into activities that provided generic solutions that met

state license, renewal, and institutional accreditation requirements. This misalignment in the purposes for attending and facilitating professional development activities createed a conflict between teachers, school districts, and universities because teachers were not rewarded for participating in professional development activities that they believe helped them introduce best practices in their classroom.

This conflict brings complications into K-12 school and university partnerships because it is counterproductive to building trust between the two institutions, and instead brings doubts to partnership participates regarding what constitutes legitimate teaching practices . Additionally, it creates a wider gap in coming to a consensus on defining teacher quality. As a result this conflict diverts K-12 teachers and university faculty from the original purpose of many partnerships for merging theory into practice.

The distrust between school and universities are likely to worsen with the current demands from the accountability movement in both K-12 schools and university-based teacher education programs. As Cochran-Smith (2005) indicates when teacher education is framed as a public policy problem, policymakers are going to identify parameters that they have control for improving teacher quality. These parameters have already influenced policies that schools and universities have to follow in the form of teacher licensing, license renewal, and institutional accreditation requirements, and these requirements do not necessarily help teachers to identify and implement best practices in the their classrooms.

Unfortunately, teacher quality outcome variables that policymakers value such as student test scores, student drop out rates, and student high school completion rates are not valued by teachers as reliable indicators of “good teaching.” As the gap for understanding teacher quality between teachers, school districts, universities, and policy makers widen there will be much fewer opportunities for merging theory into practice in K-12 and university partnership

programs. Under these circumstances, K-12 schools and universities will have to reframe the purposes of their partnerships and identify how then can simultaneously address the outcome variables mandated by policymakers and bring best curricular-based best practices in to the classroom.

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