

協同改進而生的矛盾：中學－大學夥伴關係的轉化與再生

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摘 要

自1980年代以來，學校－大學夥伴關係已成為實務與理論彼此互惠的代名詞，此合作形式也常被視為學校改進的萬靈丹。也因此自2008年開始，國立臺灣師範大學教育評鑑與發展研究中心便發起「學校全面發展計畫」，期透過相關工具進行評鑑、診斷、計畫、改進四者循環之模式，以協助中學進行自我評鑑並不斷地成長發展。為探究兩端合作關係的轉化與再生，本文擬運用Engeström的活動理論來分析在同一個目標下，中學與大學兩個活動系統產生了何種互動形式與相互矛盾。研究發現在此夥伴關係中，大學端存在著研究團隊與分工形式相互協調的本質矛盾；中學端則存在著外在規範與發展工具的本質矛盾。此外，也因此兩活動系統對於該計畫的詮釋與認知差異，導致此夥伴關係對於啟動學校自我改善動能的效益實屬有限。本文目的乃是希冀藉由兩年的經驗，能為未來研究與國內各種形式的學校－大學夥伴關係提供參考。

關鍵詞：學校－大學夥伴關係、活動理論、學校改進、學校全面發展計畫

Contradictions Derived from Collaboration: Transformations and Regenerations through University-School Partnership in Remote Schools

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Abstract

Since the 1980, university-school partnership has become a synonym of combining theory and practice, one that is regarded as a panaceum for school improvement. Hence, the Center for Educational Research and Evaluation (CERE) of National Taiwan Normal University (NTNU) in 2008 set up a project called “Evaluation for Systemic School Development (EFSSD)”. The EFSSD project was expected to help schools by raising their capacity of identifying and defining school problems and then developing action plans for improvement. A model of cyclic actions of evaluating-diagnosing-planning-improving (EDPI) was adopted for facilitating sustainable improvement. In order to investigate transformation and regeneration in this partnership, this paper drew on the Activity Theory proposed by Engeström as the theoretical framework to examine collaborations and interactions taking place in the joint enterprise of school improvement. According to the findings, the inner contradictions in the university were the fragmentation of two research teams and the incoordination within division; the inner contradictions in schools were different external expectations and the inutility of action plans. In addition, the divergent perception and interpretation of the object in this project also had limited effects on school self-improvement. The purpose of this study was to provide a basis for further research and university-school partnership in Taiwan through two-year project.

Keywords: university-school partnership, Activity Theory, school improvement, EFSSD

Introduction

The transition from solitariness to collaboration is one of educational reform initiatives (Fullan, 1991). Through enhancing interactions between professionalism and partnerships of different institutes, schools will thus undergo a process of unlearning and relearning (Fullan, 1991; Fullan & Hargreaves, 1992). University-school partnerships have grown increasingly important in the educational strategy of improving school capacity since the 1980 (Callahan & Martin, 2007:136). Collaboration between schools, as well as between schools and universities, is important in gathering critical resources, and a catalyst for organizational learning that drives schools to move forward. Due to its usefulness, school-university partnerships have developed a wide variety of collaborative types according to different structures, goals and contexts (Barnett, Hall, Berg, & Camarena, 1999).

In Taiwan, the educational divide has been persistent in students' academic performance between rural and city schools. Due to the problems of low educational quality and decline of student population in remote schools, the Center for Educational Research and Evaluation (CERE) of National Taiwan Normal University (NTNU) set up a project called "Evaluation for Systemic School Development (EFSSD)" in 2008. The project is expected to help schools by raising their capacities in defining school problems and then developing action plans for improvement through a school-university partnership. In our previous work (Lin & Chen, 2010), we mainly focused on how the input of critical resources from local office and the university was affected by external social contexts and internal organizational cultures. With the perspective of the input of critical resources, we found that despite difficulties existing in this partnership, participant schools could still regenerate and transform new resources and strategies for school improvement.

Although the project ended in July 2010, it appeared necessary to review and investigate how the regeneration and transformation happened in this partnership for building and enhancing the effectiveness and sustainability of university-school partnership in the future. Thus, I plan to examine how various situational factors affect perceptions and implementations of both institutes in the developmental process. For doing so, this paper will draw on the Activity Theory proposed by Engeström (1987) as the theoretical framework to examine collaborations and interactions that take place between the

university and schools engaged in the joint enterprise of school improvement. The Activity Theory maintains that in the process of engaging in an activity, the motive of the activity is reconceptualized, and new forms of the activity as well as new culturally patterns are created. Therefore, the purpose of this paper is to identify and model the complexities and collaborations between the university (NTNU) and schools for school improvement. The research questions guiding this paper are: (1) What are the development stages of this university-school partnership? (2) What do university and participant schools perceive as situational factors that bring inner contradictions in this partnership? (3) What can we learn from experiences in this project?

Perspectives

The background of EFSSD

In Taiwan, educational problems of remote schools attract little public attention owing to lacking of urgency as comparing to those of urban education (Wang & Chen, 2007). Despite the Ministry of Education in Taiwan allocated funds to meet needs of rural schools, low educational quality and decline of student population still persisted. In order to solve problems in remote schools, the Center for Educational Research and Evaluation set up a program called Evaluation for Systemic School Development (EFSSD), and this project expected that the university would assist remote schools by using its expertise within this partnership.

The EFSSD project aimed to improve remote schools by evidence-based and self-managing means, and the partnership among local offices, the university, and schools (Figure 1). The EFSSD project was expected to help schools by raising their capacities of identifying and defining school problems and then developing action plans for improvement. A model of cyclic actions of evaluating-diagnosing-planning-improving (EDPI) was adopted for facilitating sustainable improvement. The evaluation instruments could be used for schools to do self-evaluation, problem diagnosis, and then action plans based upon the assessment of the survey results. The cyclic action of the EDPI model was adopted for facilitating sustainable improvement. In this project, the participant schools played the main roles. The key point was that the joint project focused less on how the

university partners can help schools to solve problems, and more on empowering schools to run the EDPI model for their own school improvement projects.

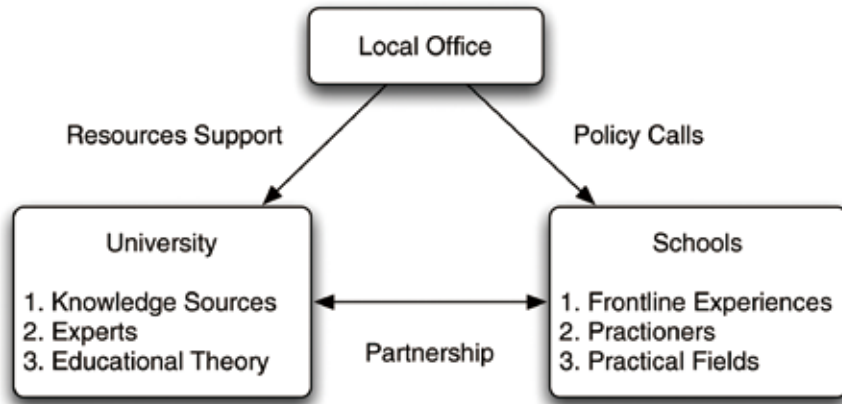


Figure 1. The partnership in EFSSD

Two research teams were established in 2008 to coordinate the joint efforts at both classroom and school levels. In the classroom level, the issues of learning and teaching were emphasized. For the school level, the surveys were conducted to assess the school status. The surveys included environment scan, empowering leadership, organizational learning, and partnership among schools, parents, and communities. After the school-level team analyzed the data, strategies were developed to help each school implement action plans for improvement.

The importance of university-school partnership

Fullan (1991) recognizes the importance of partnerships on the school improvement movement, and he also indicates that the transition from solitariness to collaboration is one of educational reform initiatives. Researchers state the future of education reform relies more on collective than individual efforts to bring in meaningful changes into schools. The better way to assist schools to become learning organizations is through partnerships (Fullan, 1991; Fullan & Hargreaves, 1992).

Over the past two decades, there has been a burgeoning interest worldwide in developing partnership between universities and schools as a means for enhancing the quality of education (Tsui, Edwards, Lopez-Real, & Kwan, 2009). The emergence of

university-school partnerships has also provided an abundance of research literature through broad practices of education reform in some countries, especially in the United States, the United Kingdom, and Australia during the 1980 and 1990. However, there are various purposes for demands of establishing university-school partnerships. For example, the advocacy of university-school partnerships in the United States, the United Kingdom, and Australia are mainly for teacher training; on the other hand, in Hong Kong, the partnership is regarded as a mechanism for school improvement in Quality School Improvement Project (QSIP), which attempts to link theories and knowledge at university level to practices and experiences of frontline teachers, thereby building teachers' capacity.

However, the university-school partnership does not suggest that the university is the institution to give and schools to receive. Rather, the relationship between both institutes should be reciprocal. As would be expected, the university may have an opportunity to apply theories in schools, and the reflections and feedback of school can benefit the university in academic education and research. Meanwhile, schools may receive professional support from the university. Hence, this dynamic interaction between theory and practice actually benefits both institutes (Pan, 2007). With this perspective, Goodlad (1988, 14) describes the relationship between schools and universities as a symbiosis, referring to "unlike organisms (or institutions) joined intimately in mutually beneficial relationships". Whenever academics and participants share the same vision, and interact by creating knowledge-exchange pathways, there are many organizational learning systems embodied in two institutes. This networked learning can be seen as a type of community of practice (Wenger, 1998). In ideal situations, university-school networks, properly carried out, are powerful ways for educators to form collaborations that can often result in improved practice and student learning outcomes (Allen & Hensley, 2005, p. 19).

A panacea for school improvement?

In general, collaboration is the essence of university-school partnership, which Rogers and Whetten (1982) define as a continuum from mutual adjustment. However, the notions of partnership are different in terms of motivation, power, responsibility and mutuality (McLaughlin & Black-Hawkins, 2007). Different forms of partnership depend on different degrees of participation and demands on both sides as well. Several forms of university-school partnership have been proposed according to either the

degree of participation or pathways of knowledge-exchange systems in university-school partnerships (Barnett, Hall, Berg & Camarena, 1999; Biott, 1992; McLaughlin & Black-Hawkins, 2007; Tushnet, 1993; Wegner, 1997). In comparing the literature about university-school partnership, three categories of forms of university-school partnership can be generally summarized according to different degrees of involvement, which are data-extraction, coalition, and symbiosis. In our expectation, we always anticipate that the university-school partnerships can be implemented symbiotically, which based on partners who have mutually conceived goals, objectives, and policies, occurs when equal partners divide both labor and decision-making on a continuous basis.

However, narrowing so severely the conceptions of school-university partnerships seems contradictory to the flexibility and uniqueness that are the very hallmarks of such partnerships (Callahana & Martin, 2007). As we reviewed the literature of university-school partnerships, we realized that there are profound differences in purpose, organization and culture between the universities and schools, and the flexibility and uniqueness are also derived from the essential differences of the two institutes. As Goodlad (1989, p. 14) points out, schools and universities “differ in purpose, function, structure, clientele, reward systems, rules and regulations, ambience, and ethos.” Both schools and universities loosely link organizations with many internal groups, each with its own interests and resources (Blase, 1993), and it inevitably creates some tension and conflict when trying to link these institutes to form a partnership. Notwithstanding, early research attempted to authenticate university-school partnerships to be beneficial to improving in teacher trainings and education practices. Much of it was judged to be methodologically weak and questionable in validity and reliability. Furthermore, extensive use was made of self-report data which were rarely triangulated as well (Book, 1996). Therefore, it was questionable to have a conclusion that whether the university-school partnership was truly a panacea for school improvement, as it came up with some weak and loosely early research.

A reciprocal relationship between universities and schools is not easy to be established (Buchmann, 1987; Schlechty & Whitford, 1988), as Hammersley (2002) notes university and school are just like two totally different worlds; the former is theoretical and abstract, while the latter is practical and concrete. In review of literature about university-school partnership in Taiwan, Juang (2005) found academics usually paid more

attention to data analysis than problem-solving and school teachers and administrators conversely hoped to get more actual strategies from scholars to eliminate resistance and pressure in schools. Academics were seen more like counselors than evaluators in building partnerships. In addition, constraints of budget and time, overload for teachers and lack of consensus were also regarded as problems and challenges in partnership (Chen & Yan, 2005; Chen, 2009). In Taiwan, overload of work was still the most troublesome problem we encountered (Chen & Yan, 2005; Chen, 2009; Feng, 2008; Juang, 2005; Ku, 2007). Not only teachers lacked additional time to participate in such school developments, but also academics had to spend a plenty of time in response to university performance evaluations.

As mentioned already, the university-school partnership, which should enhance school capacity and to facilitate changes by providing professional consultancies seemed to become a redundant imposition for both sides. Once the partnership was regarded as an additional activity for both sides, the success of the partnership could not be guaranteed. University-school partnerships imply a dynamic process of sustained collaboration and dialogue between schools and universities in a symbiotic network learning system, which aims to foster teacher professional development and set off school transformations. The university developers can help schools to evaluate, diagnose, plan and improve problems in school contexts, and schools, in turn, provide the contextualized action that helps university scholars making reconceptualization between theories and practices. Despite the fact that it is widely acknowledged that university-school partnerships are necessary for enhancing the quality of school education, more investigation and evidence to understand what factors can stimulate a successful university-school partnership are necessary. Exploring these factors is the main concern of this research.

What's the connection between the Activity Theory and university-school partnership?

The concept of activity as mediating between the individual and the social dimensions of human development is central to Vygotsky's theory of learning. Action that is mediated by psychological tools should be the unit of analysis for understanding the social origin of the higher mental process of the individual (Vygotsky, 1978). It was further developed by his followers, Leont'ev and Luria, who proposed that individual or group actions are embedded in activity systems which are collective and social in nature, and

must be understood accordingly.

The second generation of the Activity Theory regards an activity that is directed by its object, which is distinguished from other activities. Activities are realized by goal-directed actions that are subordinated to motives. Hence, an action must be understood in the context of the motive of the collective system. Furthermore, subjects are participants in an activity, motivated toward a purpose or attainment of the object. The object can be the goal of an activity, the subject's motives for participating in an activity, or the material products that subjects gain through an activity. Tools are socially shared cognitive and/or material resources that subjects can use to attain the object. Subsequently, Engeström (1987) proposed three more components of an activity system, which are: rules, division of labor, and community. Informal or formal rules regulate and define 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 his/her actions driven by the object. These outcomes can encourage or hinder the subject's participation in future activities. These components represent specific, transactional aspects of human activity and constitute as a triangle in Figure 2.

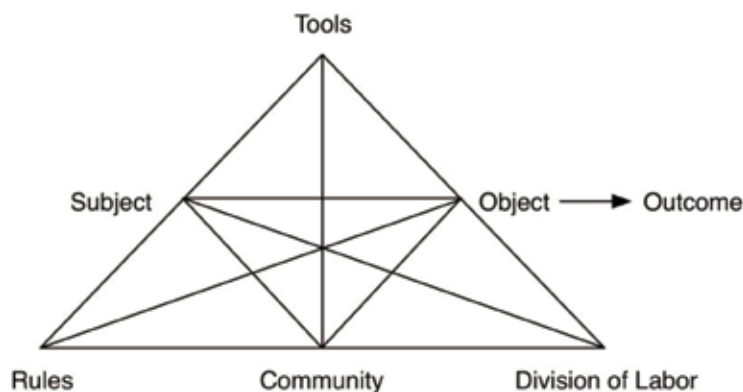


Figure 2. Activity system in second generation of the Activity Theory

The third generation of activity theory, as proposed by Engeström, intends to develop conceptual tools to understand dialogues, multiple perspectives and networks of interactive activity systems. He draws on ideas of dialogicality and multivoicedness in order to

move beyond the limitations of the second generation of the Activity Theory, which was concerned with the analysis of single activity systems. The idea of networks of activity, within which contradictions and struggles take place in the definition of the motives and objects of the activity calls for an analysis of power and control within developing activity systems. In Figure 3, there are two interacting activities initiated by different subjects (subject 1 and subject 2). The two activities are bound by the shared object (object 3) in the two activities. The relationship between the two activities can trigger a chain reaction of mediated actions within the individual activities. These chain reactions from the joint activities can lead to inner contradictions for the individual activity and the joint activity.

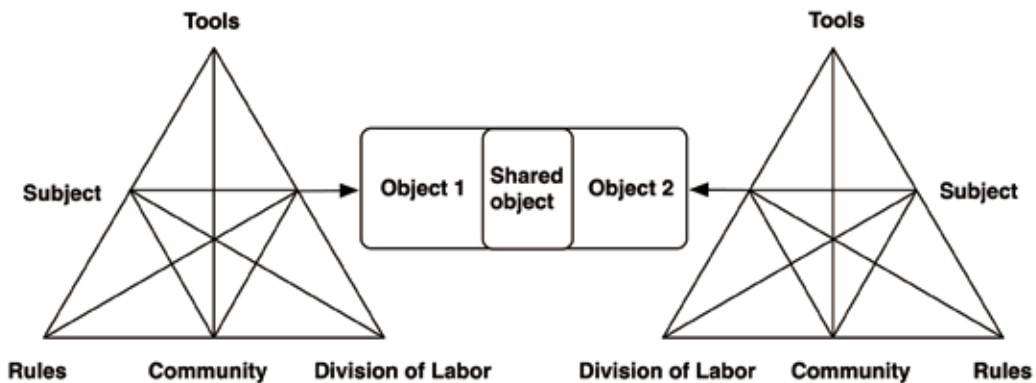


Figure 3. Activity systems in third generation of Activity Theory

This method of analysis became well known after Engeström's (1987) original conception and the wide circulation of his work (Cole & Engeström, 1993; Engeström, 1993). Yamagata-Lynch and Haudenschild (2009) summarize some categories that western researchers have applied in a wide variety of studies, including organizational change, contradictions and tensions in educational settings, historical developments in organizational learning and university-school partnerships. Once the theory expands to diverse contexts of different organizations, the question of how one interacts with others and the "multi-voicedness" inherent in these systems present an interesting and challenging topic to researchers.

In addition, the concept of activity systems provides a powerful and comprehensive way of focusing on aspects of the wider context, which serve as a mediating structure between the individual and the social world. The dynamics of the interaction between

components within an activity system and between two activity systems are also particularly relevant to the understanding of university-school partnership, which is inherently constituted by two different socio-historical contexts (Tsui et al., 2009). From previous discussions, some difficulties and challenges can be found embodied in university-school partnerships due to the organizational differences. Inevitably, it does cause some tension and contradiction while trying to integrate these two institutes. However, contradictions are important, because they can result in change and development (Engeström, 2001). As the contradictions of an activity system are aggravated, some individual participants begin to question and deviate from its established norms. Contradictions can therefore be regarded as the motive force of change and development (Engeström & Miettinen, 1999). Therefore, the Activity Theory allows 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 (Yamagata-Lynch & Haudenschild, 2009).

While analyzing the various sources of tension, Engeström identified four levels of inner contradictions. Primary contradictions occur when activity participants encounter more than one value system attached to an element within an activity that brings about conflicts. Secondary contradictions occur when activity participants encounter a new element of an activity, and the process for assimilating the new element into the activity brings about conflict. In other words, the progression of these two contradictions can be understood as a diffusing process in an activity system, as shown in Figure 4. While the primary contradiction exists in any node of an activity system, the secondary contradiction is derived from conflicts between nodes. Additionally, Tertiary contradictions occur when activity participants face conflicting situations by adopting what is believed to be a newly advanced method for achieving the object. Quaternary contradictions occur when activity participants encounter changes to an activity that result in creating conflicts with adjacent activities.

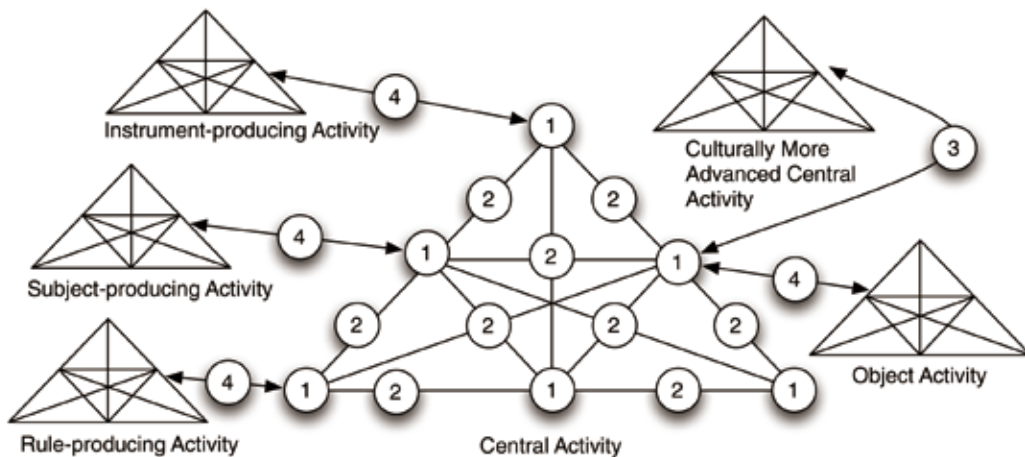


Figure 4. Four levels of contradictions within activity system.
Adapted from “ ” by Engeström (1987).

Inner contradictions can be observed when an activity is affected by other related activities (Engeström, 1987, 1993). This assumes that human activities do not exist in a vacuum, and it also emphasizes how a relationship between joint activities can bring imbalances to one of the activities with the potential for instigating a change process (Center for Activity Theory and Developmental Work Research, 2004). There has been a burgeoning emergence of research regarding university-school partnerships. This research applies Activity Theory as a theoretical framework or descriptive tool, and each study also shows a variety of concerns. For example, Tsui and Law (2007) focus on the engagement in collective knowledge generation by crossing community boundaries. On the other hand, some researchers use Activity Theory to analyze the contradictions that are generated by the different expectations of the two institutes (Roth & Tobin, 2002; Yamagata-Lynch & Haudenschild, 2009).

The purposes of drawing on the Activity Theory as the theoretical framework are twofold. Firstly, this theory provides a comprehensive framework to examine collaborations and interactions taking place in the joint enterprise of school improvement. Secondly, from observations taken in this project, I propose that this project only shows minimal positive effects on school improvement. Difficulties mentioned previously do exist in this partnership. Therefore, the question should be how these difficulties emerged instead of what difficulties it has. In order to answer that question, using the Activity

Theory can be a useful guide to find some contradictions, which recede and disjoint the relationship between the university and schools.

Methods of Inquiry and Data Sources

Data collection

The EFSSD project took place in the northern part of Taiwan (Taipei and Taoyuan county), and eight participant schools were located in disadvantaged and remote areas. The university-school partnership in EFSSD consisted of three institutes, which were the local office, the university and eight schools. Participants in EFSSD included three superintendents who represent the local office, four academics that take charge of each two schools and school participants.

In order to describe the development and explore the formulation of this project, eight participants were intentionally chosen to be interviewed because of their deep involvement in the three institutes. These participants consisted of one superintendent, three academics, and four directors of academic affairs of case schools, which collaborated with various academics. The length of the interviews ranged from 1 to 2 hr, which totaled 12 hrs. All interviews were digitally voice-recorded and transcribed for analysis.

The research device was a case study with multiple data collection methods. The interviews were the primary resource in data collection. Additionally, participative observations and three surveys conducted by the university provided a secondary data resource, which was regarded as the background information of relationships among the three institutes.

Data analysis

In this case study, transcriptions, field observations, and school documents were analyzed using Atlas.ti (V5.0), which is a software program for analyzing qualitative data. The data were coded, compared, and analyzed for developing patterns, categories, and themes (Strauss & Corbin, 1997). At the beginning, the goal of data analysis was to depict the changing process between the university and schools, and identify inner contradictions that affected each other in this partnership.

However, using Activity Theory as the theoretical framework also brought about a dilemma while coding the data. Once the data was coded through following each component in the activity system, it seemed to become a process of filling in the blanks instead of discovering participants' life experience. Finally, I began to identify the initial codes without the theoretical framework, and then merged these codes and provided definitions of all relevant codes, eliminating redundancies. After the set of codes had emerged, I started to revise the data and analyze codes relevant to components of the activity system.

Findings and Discussions

The road to hell is always paved with good intentions. No matter how meticulously a plan is designed in advance, unexpected transformations would often bring about spillover effects that deteriorate and distort well-intentioned projects. In order to understand the gap between plans and implementations in this project, two stages of analysis strategy were used to describe the university-school partnership and analyze inner contradictions within the activity system.

Identifying components of the EFSSD activity system

To begin with, every component of the university and schools activity system should be identified in advance by applying the diagrammatic framework according to the original plan and perceptions of participants. While the EFSSD project was constituted by the local office, the university, and schools, the role of the local office in this project was merely to provide monetary resources and policy calls for the other two institutes. In contrast, the mutual engagement only took place between the university and participant schools. Therefore, we will partially focus on the joint enterprise formed by the university and schools.

The EFSSD was initiated from a research finding for improving school quality of remote schools in Taiwan (Chen & Wang, 2005). Chen and Wang (2007) indicated there were many troublesome problems that might not only enlarge the inequity but also work against social justice. Due to the seriousness of these problems, academics visited a Hong Kong institute to learn from the QSIP, which provided school-based professional support

among the government, universities, and schools. Therefore, many ideas of the EFSSD were derived from the framework of the QSIP.

The subject of the university activity system is made up of two research teams, which were established to coordinate joint effort at both classroom and school levels. At the classroom level, the issues of learning and teaching were emphasized; likewise, at the school level, action plans for building capacities in improving school were emphasized. The tools that helped participant schools included professional consultancy, the surveys for diagnosing school problems and teaching materials. The rule that determine how academics participated in EFSSD activities included policy calls and requirements from the local office, and moral obligations, as being professors in a normal university. The community members that supported this project were university staff, and the division of labor involved responsibilities of participating in the project, including analyzing data from surveys, creating teaching materials, reviewing actions plan of each school, and guiding school development goals. Finally, the object of the university included anticipating school self-development, improving the school quality through linking theory to practice, and engaging in university-school partnerships.

On the other hand, the subject of the schools activity system was school staff and teachers who participated in this project. The tools used for improving schools included action plans that were developed by the diagnosis of surveys, and human resources from the university. The rules guiding school staff and teachers in schools activity system were expectations from academics and requirements from the local office, and these elements in the rules components also defined the division of labor in this activity system, which was the collaboration for writing and implementing action plans. Consequently, participant schools as community members completed the above whole joint activities. The objects of schools are seeking for outside stimulus, support of substantial resources and raising student test scores.

The joint activity system that was composed of the university activity system and the schools activity system represented a shared object improving school qualities in Figure 5. Through the diagrammatic framework, we could more clearly see the whole activity in the EFSSD project, and the joint activity system also met literature that described how universities and schools are two totally different worlds, with own beliefs, values and

expectations (Blase, 1993; Goodlad, 1989; Hammersley, 2002). Although the intersection of object 1 and object 2 represented a shared object, we could still find the object of school staff participation in this project, and the object that academics initiated for this project were not aligned with each other. While there were some differences existing in this joint enterprise, it had inevitably brought some inner contradictions that had affected the development of this project.

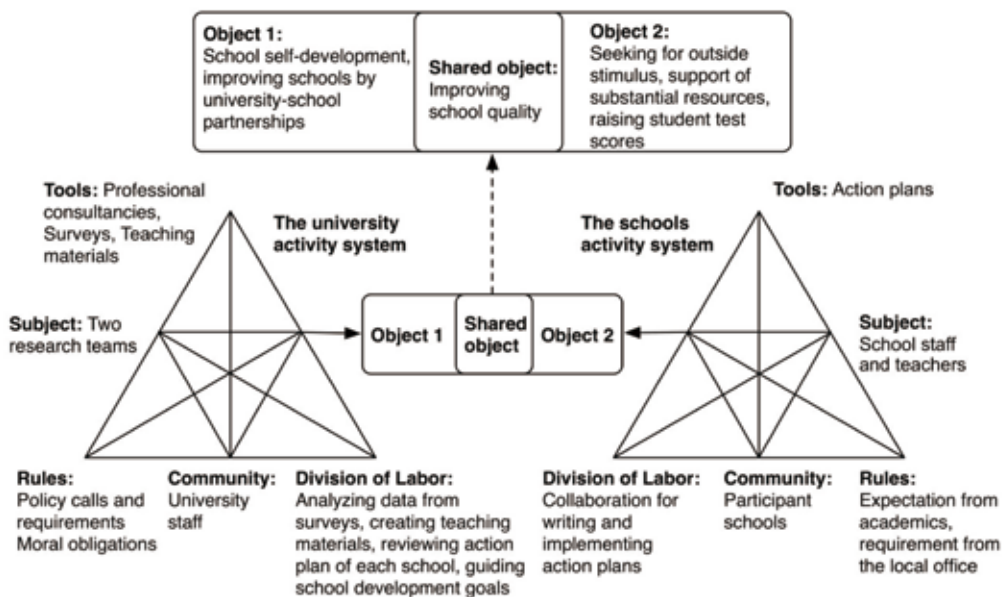
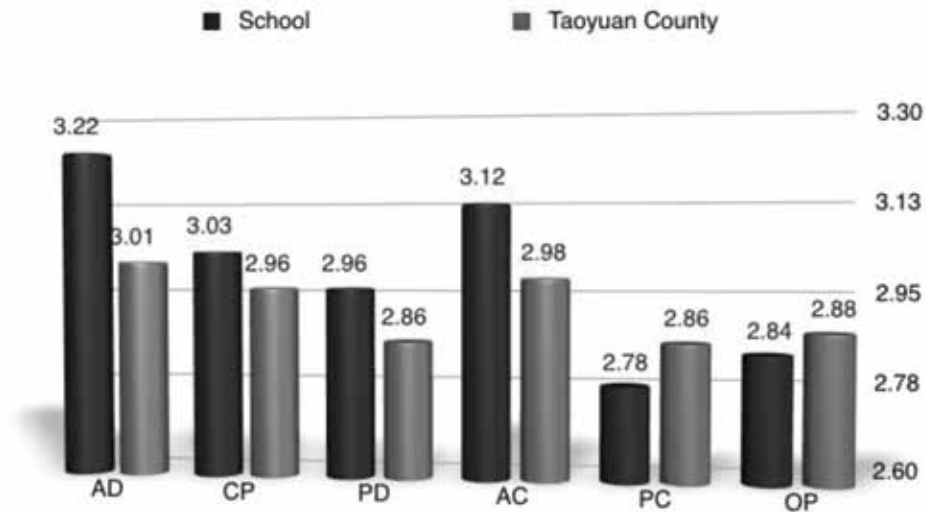


Figure 5. The joint activity system in EFSSD

Analyzing inner contradictions within the EFSSD activity system

In the development process of the EFSSD project, two stages were clearly distinguished by tools for diagnosing and improving schools, which were surveys and action plans. In the previous stage, several school participants and the superintendent told us that they were skeptical about the outcome implications of the quantitative data, which was used for diagnosing the current situation of administration (AD), curriculum and pedagogy (CP), teachers' professional development (PD), student affairs and counseling (AC), parental and community involvement (PC) and overall perceptions of school performance (OP). However, they considered this was another superficial reform initiated from higher authorities. After school participants read the descriptive statistics, many of them were surprised at those precise questionnaire findings, which not only showed school

performance, but also revealed problems compatible with their perceptions. Taking one of participant schools for example, the case school was perceived as low performing in “parental and community involvement” (2.78) and “overall perceptions”(2.84).



The principal and the director of academic affairs said:

Whether in school-level or in classroom-level, the research team from NTNU spent lots of time giving assessments for teachers, students, and parents. After the assessments, we learned from descriptive statistics what the school position we were in. So, this information is indeed valued.

For me, I can see more clearly where the problem come from after joining this project, especially from the questionnaire. I mean as we work in the frontline, we can feel that there are some rooted problems just like you said. However, we cannot speak it out with confidence if not with these evidences.

As a result, a reciprocal relationship between the university and schools was established based on the accurate and objective surveys. However, while entering the next stage of developing action plans, some unexpected transformations began to deteriorate this partnership quietly. As one of directors of academic affairs said:

I have no idea how this project could become like this. I mean, at the beginning,

we did collaborate very well in surveys. We completed the questionnaires they needed, and they also provided some information that we wanted to understand.

When the project ended, these transformations were finally found and described. The transformations were always indiscernible when they took place in the development process. According to the above discussion, uncoordinated objects and inherent differences would inevitably generate some contradictions within the joint activity system. In the following section, we will illuminate and analyze how inner contradictions spawned from the joint activity affected and hindered the development of this project.

The primary contradiction: new demands versus existing practices

Due to external policy calls and requirements, this project not only challenged academics' existing practices in the university, but also imposed some additional work on participant schools. Different from the old experiences in these two institutes, academics were requested to play a border-crosser between theory and practice, whereas school teachers and administrators had to form a new set of conceptions, attitudes and behaviors for building a collaborative team. However, either condensing consensus or building a collaborative team was not as easy as falling off a log if only by some policy calls and monetary resources, and primary contradictions were derived separately in two institutes from counterbalance between new demands and existing practices.

Primary contradictions often existed in nodes within an activity system. In the university activity system, the primary contradiction (see 1 of the university activity system in Figure 6.) arose from the fragmentation of two research teams, which were supposed to collaborate in classroom level and school level. According to the framework of EFSSD, two research teams constituted by academics should have complemented each other. Not only the academics at school level should help school participants to develop action plans, but also academics at classroom level should have assisted to improve teaching and learning according to action plans. However, the fact was that each research team only took charge of their own business, and there were only few connections between them. In this respect, it seemed completely contradictory to the original implementation framework. A director of academic affairs and an academic mentioned:

The classroom level and the school level were just like parallel lines. We can't even compare whether this project had an effect on student learning through the action plan.

In fact, we did have some problem in integrating classroom level and school level, because the school level was constituted of professors in the education department, and the classroom level was constituted of professors from other departments. It was so difficult to meet each other, let alone discuss this project together.

While the primary contradiction arose from the resistance to collaborate in the university activity system, the primary contradiction in schools activity system was caused by conflicting rules and commonality of high turnover in remote schools. In the schools activity system, teachers and administrators had to adhere to regulations and requirements that were associated with maintaining their jobs and fulfilling projects expectations. In rules, requirements from the local office and expectations from academics regulated participant schools in this project. Frankly speaking, some of these schools were forced to participate in this project, and reasons they couldn't refuse are twofold. First of all, the local office asked schools to participate in this project just because their principals were newly appointed, and those principals had nothing to do but accept it. Secondly, school participants were not allowed to be disobedient to orders from higher authorities. As one of directors of academic affairs said:

Even though we felt unwilling to take all of the orders from the local office because of lots of additional work, we still have to accept it. Otherwise, we will never stop worrying about not getting subsidies or being excluded by the local office in the future.

On the one hand, this project was actually a burden and enforcement for participant schools. On the other hand, participant schools were also expected by academics to join this project and develop action plans spontaneously. As a result, the primary contradiction

in rules emerged from contradictory requests from the university and the local office, which also made academics misunderstand participation motivation of schools and continually intensified contradictions in this project.

In division of labor, high teacher turnover rate was still a character of remote schools. Due to this intrinsic problem, this project hardly proceeded without any interruptions, and this problem indeed brought some organizational conflicts during the project. One of directors of academic affairs said:

Whenever you try to promote a two-year or three-year project in remote schools, you have to face the alteration of school participants and students. Sometimes I would just feel exhausted and helpless when I had to explain the same work to newly appointed staff over and over.

The secondary contradiction: discontinuities toward objects

Engeström (1987, 1998) claims that the driving force for transformation in an activity system comes from contradictions within constituent nodes or between nodes, which are involved with the development of subject, subject, rules, community, and division of labor. The misalignment not only represents the dialectic relationship between actions and structures, but also reveals a starting point of changing among competing value systems.

In the university activity system, academics seemed to carry some unreachable goals on their backs. Although their duty in this project included analyzing data from surveys, creating teaching materials, reviewing action plan of each school, and condensing consensus with participant schools, most of them were just accomplished partially. However, this difficulty did not directly come from academics' resistance for change, rather, it was caused by an awkward situation that every academic had to take responsibilities in teaching, research, and school support. Moreover, doing school support was always the subordination for academics. As a result, the secondary contradiction in university activity system was between the subject and division of labor whereas academics were so fully occupied that they couldn't fulfill all the duties (see 2 of the university activity system in Figure 6.).

As we found that overload of work was still the most troublesome problem for

both academics and school staff from past research about university-school partnerships (Chen & Yan, 2005; Chen, 2009; Feng, 2008; Juang, 2005; Ku, 2007), the secondary contradiction also arose from this difficulty. Although academics were regulated to take several responsibilities, such as analyzing data from surveys, creating teaching materials, reviewing action plans, guiding school development goals, in the period of implementing action plans, they just cast participant schools aside because of their busy day-to-day life. It inevitably generated idleness without visiting schools in the second year of this project, and school participants consequently began to feel skeptical about the relationship with the university.

As previously mentioned, the evolution of contradictions is alike a diffusing process in an activity system. However, it doesn't mean that a primary contradiction will definitely lead to a secondary contradiction. Instead, a secondary contradiction will emerge as long as the relationship between nodes is conflicting to each constituent node. In the school activity system, though there was no primary contradiction within nodes of tools and subject itself, a secondary contradiction still emerged from the relationship between tools and subject (see 2 in the schools activity system in Figure 6.). For school participants, professional consultancies for action plans from academics were always too futile to implement in school contexts. Despite the fact that professional consultancies were provided according to the surveys, the opinions were so vague and abstract that participants even had no idea how to ameliorate their action plans. Furthermore, the enrollment rate was still the priority for most of participants.

Secondary education in Taiwan is often dominated by the belief of credentialism, and raising student test scores is still participants' main concern. Therefore, when action plans were developed for comprehensive school improvement including organizational learning, teacher professional development and parental involvement, participants hesitated to spend additional time for matters regarded as meaningless in enhancing student test scores. One of directors of academic affairs said:

I know the consultancies professors gave us were very practical for our school. However, the interpretation from them was a little different from ours due to the lack of more frequent communication. Additionally, the opinions, including

increasing parental involvement, improving organizational learning, were too far away from the real situation we are. I really hope they could focus on how to raise our enrollment rate and students' test scores.

It is noticeable that there seemed entirely different statements about the disconnection from academics' interviews. Academics thought participants bungled actions plans themselves. Furthermore, action plans were completed through filling obsolete and existing data from other projects instead of being developed from the diagnosis with others collectively. In addition, academics thought it was difficult to give practical guidance since action plans weren't well prepared. As a result, the secondary contradiction was built on the misunderstanding on both institutes. Furthermore, because developing an action plans forced participants to form a new set of conceptions and attitudes, which challenged the inherent organizational culture in their daily practice. Developing actions plans therefore, became an additional burden instead of a stimulus or guidance for improving schools, and this contradiction was also an upper-level cause of the quaternary contradiction between two activity systems. Consequently, these primary contradictions led to even more secondary contradictions in this activity system.

The quaternary contradiction between two activity systems

As a result, since there were numerous contradictions inside these two activity systems, we found that this joint activity did not guarantee that the effort for meeting the shared object are organized or coordinated. The object in the schools activity system for participating in the EFSSD project, and the academics' object for facilitating school development were not aligned with each other. It unavoidably generated the quaternary contradiction in this joint activity (see 4 in Figure 6.). This quaternary contradiction was between different hypothesis that were held by academics and school participants. Academics insisted this project would be successful only if school participants used the EPDI (evaluating-diagnosing-planning-improving) model for facilitating sustainable improvement by themselves. In contrast, school participants never thought they could accomplish any improvements without support from the university. Additionally, the motivation for which school participants participated in this project was to obtain support

of substantial resources, such as monetary resources and teaching materials. However, not only did the local office reduce the degree of participation and monetary support as time went by, but academics also stop visiting schools abruptly. As a result, participants were in a situation where they had to continue attending mandatory project events even when the outcomes did not meet their needs. Teachers believed that these activities met requirements for the local office and university institutional framework even though their personal needs were not met, this situation was also in agreement with previous research about university-school partnership (Little, 1989; Yamagata-Lynch & Haudenschild, 2009).

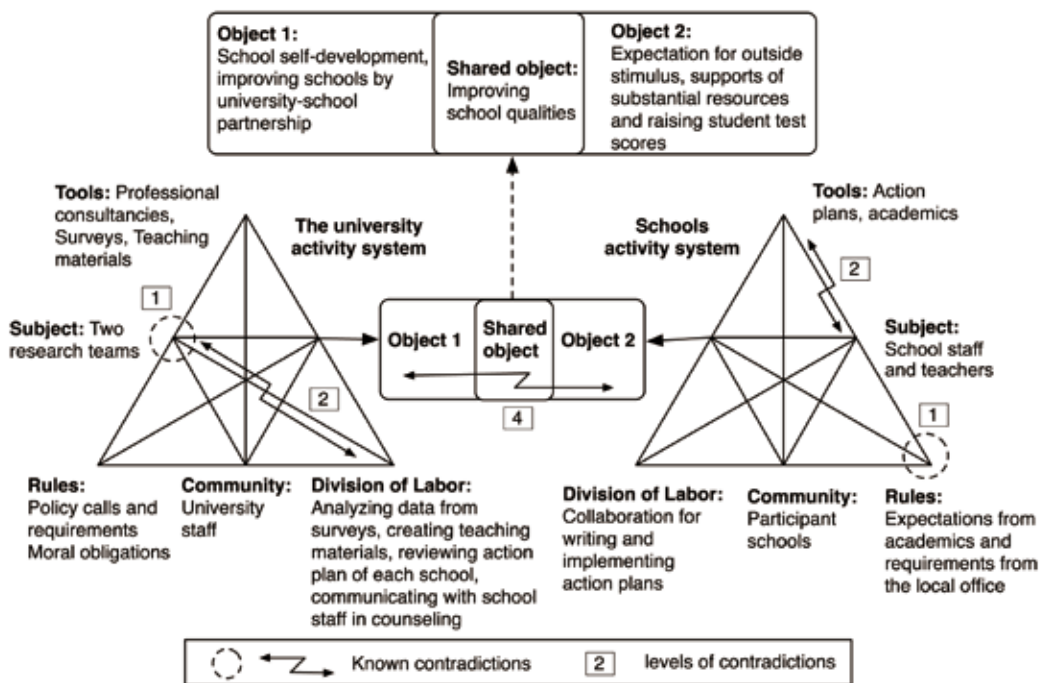


Figure 6. Inner contradictions in the EFSSD activity system

What can we learn from experiences in the EFSSD project?

Through describing the development process and analyzing inner contradictions within the joint activity systems, we could find several obstacles that distorted and deteriorated the original well-intentioned project. It's clear that the disintegrated project not only depleted energy and motivation of both institutes, but also made participants lose confidence in further university-school partnerships. Nevertheless, we can still think conversely how to improve and establish a better university-school partnership from the experience in EFSSD project.

Never assume schools can engage in self-improvement by themselves. As the above findings showed, there was a disparate perspective in playing the main role in this project between the university and the schools. Fullan (2007) indicates one of the elements of successful change is “assume that lack of capacity is the initial problem and then work on it continuously.” He emphasizes to rein judgment at the early stage of an improvement effort in favor of working on capacity building. One reason that the improvement is not working is that people do not know how to improve it, or they do not believe it can be improved. Therefore, it’s premature to ask schools improve all by themselves without any sustainable and external professional supports. In addition, we should always remain aware of impressions made from projects. For example, when I interviewed some participants, they were worried about being tagged a “low-performing school” due to the aim of this project was to improve disadvantaged schools. What we should work harder is the process of scaffolding for ongoing school improvement instead of holding specious discussion meetings.

Sustainable communication and collaboration are key factors for successful university-school partnerships. Like any form of partnership, whether personal or professional, all the partnerships are fundamentally reliant on the people who comprise them and the quality of the relationships between them. The time required building open and trusting relationships is considerable, especially when the schools and universities involved do not have any previous associations. A common consensus is, therefore, formed by several adjustments that are caused by contradictions and interactions between two institutes. Indeed, there is no shortcut to have a successful mutual engagement in university-school partnership. Once we hold back our participation and involvement in this relationship, we began to reap what we sow.

Focus on teaching and learning. From interviews of school participants, I found that their value system was always in operation whenever they encountered a new project or request. In their daily practice, they had so many affairs that forced them to make a trade-off when participating in some projects. In other words, participants were only concerned with what was truly meaningful and important for them. In this project, we spent a lot of effort and resources on the administration dimension, which aimed to improve administrative efficiency and facilitate organizational learning. However, saying like this does not mean it is a waste of time and resources to focus on the administration

dimension. Instead, in school contexts, administration rarely brings change in school renewal, and it also has oblique influences in teaching and learning. From experiences in EFSSD, administration should be a supplementary support instead of a main role in school improvement. In addition, focusing on teaching and learning makes participants tend to have deeper and more sustained involvement due to the discernible effects.

Conclusions

The concept of learning at boundaries being brought about by divergent experience and competence is somewhat similar to the concept of “boundary crossing” in the Activity Theory proposed by Engeström. It occurs when two or more activity systems interact. The multiple perspective and multivoicedness in these activity systems, as well as new elements introduced from another system, generate contradictions which play a central role in bringing about innovation and change (Engeström, 1999). By analyzing two activity systems, several contradictions that existed in the joint activity system were found clearly. However, there was no regeneration in the development process in EFSSD. Contradictions or conflicts do not guarantee regenerations and changes. It happens only if subjects of both sides identify with the activities. According to the Activity Theory proposed by Engeström, although contradictions are the driving force for learning and change, they are just a starting point of the expansive learning cycle. In fact, the advantage of this theory is its thick description and comprehensive analyzing of how the contradiction transform the subject, how the object substantially become a part of the subject in expansive learning, and how the contradictions within nodes promote individuals accomplish their goals.

The theoretical model itself in this study did not provide any information on how to design future partnership activities or how to prioritize the implementation of relational improvement strategies. Instead, it just provided a framework for evaluating this project, which captured issues that could not be expressed prior to this study. The activity systems analysis theoretical model included components that helped conduct a thorough evaluation of our partnership relations. It was most useful in identifying the sources of conflicts and evaluating how each component in the activity system model affected the outcomes of partnership activities.

Through review of the disparate hypothesis from university and schools in this research, we can find there was an unbalanced power relationship within this joint activity system. Although participant schools were the object in this project, they were unable to eliminate the gap and address further requests. The phrases of mutual engagement “to help schools”, “to work with schools” and “working together with a team” seemed a dream for both institutes. In the future, it would be interesting to explore the power relationships within the university-school partnership. Since the power relationship is inherent in university-school partnership, we should call for more effort in building a reciprocal environment for mutual engagement.

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