

FACULTY SOCIAL NETWORKS FOSTERING
PEDAGOGY REFORM: A CASE STUDY
FROM PRINCE OF SONGKLA
UNIVERSITY

By

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CHAPTER I

DESIGN OF THE STUDY

A major movement for Thai educational reform began in 1997 and culminated in 1999 when the *National Education Act of 1999 (NEA)* (*Office of the National Education Commission: ONEC, 2002*) was initiated. The problems of Thai education that underlined the educational reforms were the rote memorization of knowledge in teaching and learning process (Fry, 2002; Watson, 1981). Since then, it has been obligatory for schools and educational institutions in Thailand to reform learning and teaching consistent with the NEA guidelines. Learning reform is essentially a shift from focusing on subject matter to focusing on human beings or learners. A learner-centered approach becomes imperative, and instructors need to learn new roles as facilitators and advisors (Khemmani, 2006).

Many scholars believe that higher education faculty teach in a way that focuses on delivery of contents, a way that supports traditional forms of instruction, “the sage on the stage”. In Thai educational system, the urgent problems of teachers’ roles in the classroom have been addressed by the Sub-Committee for Learning Reform as follows:

1. teachers are under conviction that they are most knowledgeable while learners are the receive end have to attune themselves to the subject matters and the teachers’ methods, and

2. the teaching-learning process is still a routine and repetitious method of transferring knowledge (ONEC, 2000).

The mentioned practice of the learning teaching process can be referred to as teacher-centered instruction (Cuban, 1993). Teaching practice in the traditional Thai classroom in this manner would be a barrier for learners to develop their learning skills because they are usually accustomed to waiting the knowledge imparted and transferred by the teachers. In so doing, they always follow their teachers, are obedient, and sit still. Consequently, the students do not have participation in their learning and they are not encouraged to think and learn by themselves. Hence, this teaching practice is inevitably necessary to be reformed in order to meet the requirement of NEA.

The role of pedagogy, or the relationship between teachers or instructors and learners or students in education, is illuminated by van Manen. According to van Manen (1994), “The very term *pedagogy* already brings out the relational quality between teacher and student, in a manner unlike any other educational concepts such as curriculum, instruction, or teaching.” (p. 140), and, “It’s only in certain relational contexts that the thinking life, the developing identity, the moral personality, the emotional spirit, the educational learning, and sociopsychological maturing of the young persons occurs” (p. 141). It can be said that pedagogy is the roles of teachers in caring for their learners with commitment and understanding, and leads the way to learners’ growth toward mature adulthood. *Pedagogy*, as defined by van Manen, compares nicely with the aim of Thai education in the NEA: “Education shall aim at the full development of the Thai people in all aspects: physical and mental health; intellect; knowledge; morality;

integrity; and desirable way of life so as to be able to live in harmony with other people” (ONEC, 2002, p. 4).

The meaning of teaching and pedagogy is closely related. van Manen (1994) asserts that teaching is a pedagogical interaction with children, and the classroom life of teachers is difficult especially because it is virtue like, improvisational, and pedagogical. The pedagogical dimension is involved in everything that teachers do or do not do in classrooms. Teaching methods, also known as teaching strategies, describe the various types of activities faculty employ when teaching (Billings & Halstead, 2005). Teaching methods so represent one dimension of pedagogy.

For the educational reforms in higher education in Thailand, there is an additional expectation that the reform will serve as the main mechanism for national development in various aspects – economic, social, political, cultural and environmental. Thai universities are also expected to provide the driving force empowering Thailand to become a self-dependent society able to benefit from innovations and increased competitiveness in the international arena (OEC, 2003). According to the National Education Act 1999 (ONEC, 2002), there is the need for effective teaching and learning process to enable the learners to develop themselves and improve their learning at their own pace and to the best of their potentiality. Moreover, innovative pedagogy among faculty is required by the national policy to support the higher educational goals of producing graduates who will be endowed with the basic qualifications of global citizenship (*Office of the Educational Council; OEC, 2003*). According to OEC (2003), instructional pedagogy is supposed to enable learners to acquire critical thinking skills and abilities for problem-solving; the creation of innovations and desire for lifelong

learning; the ability to create new tasks; self-adjustment to the world of work; self-dependence; and attainment of social benefits.

Beside the needs of effective and innovative pedagogy mentioned above, the acceleration of global competition is a threat for universities across the world including Thais. One of critical challenges is the new territory of online pedagogy. In the information and technology era, online education is being used to promote equity, access, student numbers, and revenue in education, and higher education institutions across the world are under pressure to integrate new technologies, particularly the online learning, into teaching and learning (D'Antoni, 2006). Prince of Songkla University (PSU), like other universities in Thailand, is striving for a successful position in the competitive world of higher education. In the current decade, PSU's administration is under the mandate to implement the educational reforms detailed in the National Education Act of 1999.

PSU is a government-owned university; it serves as the main higher educational institution in the southern part of Thailand since 1968 (*Office of Quality Assurance Prince of Songkla University; OQA, 2006*). The university has established five campuses scattered geographically along the southern region of the country, as was the original intent of the university's foundation. PSU has announced four fundamental missions: doing research, teaching, providing academic service, and maintaining Thai culture. In 2006, there were more than 30,000 enrolled students, and the university employed nearly 2,000 faculty members (OQA, 2008). The university officially served 269 programs in nine different fields of study in the same year. According to OQA (2006), there were estimated to be more than 4,000 courses offered for the entire university in the year 2005.

In 2003, the Thai government announced the Strategies and Roadmap for Higher Education Reform (OEC, 2003) as a guideline for achieving higher education reform for universities. Benchmarks were established as indicators of the quality and achievements of all courses, both regular and otherwise, as well as indicators of the standards of other tasks. Criteria or best practices were set. Rating and ranking of higher education institutions were also encouraged to stimulate enhancement of quality.

In implementing the educational development strategies, the University Academic Administrative Committee consisting of associate deans for academic affair from each faculty and the vice president for academic affair as the chair person, was established. The committee is charged with communicating the strategic movement of pedagogy development between the university administrators and faculty staff (J. Kritpracha: Assistant President for Academic Affair, personal communication, Jul 15, 2007). Clearly, traditional lecture-based teaching pedagogy is a critical issue for PSU. This form of instruction needs to change as PSU aims to be the leading university in the region (B. Siribumrungsukha: President of PSU, personal communication, December 19, 2007).

At PSU, Hat Yai Campus, most faculty are professionals in their particular field, such as medical sciences, engineering, natural resources and some others, but not in education. Thus, the majority of these faculty teach their students as the way they were taught. Typically, the university provides teaching orientation programs for novice faculty, and there are occasionally intensive workshops introducing particular teaching methods for interested groups of faculty (OQA PSU, 2006; 2008). Self-reported data from faculty, as requested by the university, showing the current situation of non-

traditional teaching methods being used by the university faculty from the overall on-service more than 4,000 courses as in the data (see Table 1).

Table 1

Courses and Percentage of the Overall Categorized by Teaching Method (for the year 2005)

Teaching Method	No. Courses	% of Overall On-Service Courses
Promblem-based Learning	152	3.42
Computer-aided Instruction	146	3.28
Distance Learning	3	0.07

From *“The annual report of quality assessment of Prince of Songkla University”* by the Office of Quality Assurance, 2006.

Statement of the Problem

Higher education in Thailand requires new approaches to teaching and learning; a move from the highly teacher-centered or didactic approach that has existed for a long time to focusing on human beings and learners (Watson, 1981; Fry, 2002). The urgent need of teaching and learning or pedagogy reform has been reflected in the National Education Act of 1999 (ONEC, 2002) and the Strategies and Roadmap for Higher Education Reform (OEC, 2003). In response to these calls for action and reform, universities have been obligated to establish a system for continuous development to enable faculty to create the ambiance, environment, instructional media, and facilities for students to learn and be able to benefit from research as part of the learning process (OEC, 2003).

Despite the increasing emphasis by administration on learner-centered or progressive pedagogies, faculty hardly make a change from teaching in the traditional ways that focuses on delivery of contents or lecture-based. In fact, an evaluation of the higher education reform situation in Thailand in 2004 (OEC, 2005) provides evidence that the majority of faculty lack knowledge and access to the critical information of how to teach in support of the new paradigm of teaching-learning processes or progressive pedagogy that is intended by the National Education Act. And, the PSU quality assurance report indicators for the year 2004 (OQA, 2006) have shown that although there are many changes in courses' structure, the current progressive pedagogies needed to enhance the educational reform are very slow in implementation.

Network analysis proposed by Granovetter (1973, 1983), and Perpetuation Theory by Braddock (1980), Wells and Crain (1994) helped explain this anomaly. Social network analysis provides an important means of assessing and promoting collaboration in strategically important groups, and allows one to conduct very powerful assessments of information sharing within a network revealing where collaboration is effective and points where improvement is necessary (Cross, Parker & Sasson, 2003). Perpetuation Theory through its understanding of strength of ties allows one to identify dominant groups and their likely interactions promoting change and new learning. Both theories combine to elaborate that pedagogy reform might need social interventions to help create ties and bring faculty to the society's mainstream of new pedagogy in addition to administrative measures and social networks are required to engender pedagogy reform and sustain pedagogical progressives. These theories provided a convincing way to relate micro-level social interactions to macro-level patterns which led to gain insight into such

macro phenomena as social mobility, organization community and political structure (Granovetter, 1973).

Purpose of the Study

Through the lenses of Granovetter's (1973, 1983) Network Analysis and Perpetuation Theory (Braddock, 1980; Wells & Crain, 1994), the purpose of this study was to examine the relationships developed among faculty at PSU in implementing the new and required pedagogy reform strategies. Specifically, the following will be done:

1. Describe the opportunities provided by administrators to facilitate pedagogy reforms;
2. Describe the ways in which faculty engaging in the most progressive pedagogy learned to do so;
3. Analyze these realities through the lens of Network Analysis (Granovetter, 1973, 1983) and Perpetuation Theory (Braddock, 1980; Wells & Crain, 1994);
4. Report other realities that may be revealed;
5. Assess the usefulness of these lenses for explaining the perspectives, and
6. Speculate about the impact of these ties on the future of change in PSU pedagogy.

Theoretical Framework

Network Analysis (Granovetter, 1973, 1983) and Perpetuation Theory (Braddock, 1980; Wells & Crain, 1994) served as the theoretical framework for this study. Network Analysis allowed not only the examination of teachers' ties, and their impact on diffusion of influence and information, mobility and opportunity, but also helped in predicting differential capacity of communities to act toward common goals. Perpetuation Theory provided a useful conceptual framework to explain why teachers perpetuate teaching with

the traditional pedagogy, and how teachers acclimated in a community setting. Both theories lend themselves to the naturalistic inquiry approach and provided useful lenses from which to examine the implementation of organizational strategies in fostering pedagogy reform in higher educational setting.

Perpetuation Theory

According to Braddock (1980), McPartland and Braddock (1981), and Wells and Crain (1994), the significance of Perpetuation Theory is two fold. On one hand, the theory helped explain the social phenomenon when social environment like in a university engenders faculty's encapsulation in traditional pedagogy and avoids learning. Perpetuation Theory maintains that segregation tends to perpetuate itself "across the stages of the life cycle and across institutions when individuals have not had sustained experiences in desegregation settings earlier in life" (McPartland & Braddock, 1981, p. 149). Faculty who teach students by using the same traditional pedagogy from the beginning of their career and stay status quo along the way may be considered similar to the social phenomenon in Braddock's Perpetuation Theory since the macro status of traditional pedagogy is still prevailing despite the intentional national education reform policy.

On the other hand, Wells and Crain's (1994) work helps incorporate Perpetuation Theory alongside with network theory to underpin the reality of how segregation and the isolation cycle of the minority is broken down because of the difficulty of gaining access to critical information. Whereas Perpetuation Theory elicits that social intervention strategy—school desegregation—has long-term effects on breaking down the self-perpetuating cycle of racial segregation in America, and that the intervention does

facilitate the movement of Blacks into mainstream in a number of ways (Braddock, 1980). Wells and Crain (1994) point out that there are various junctures at which the cycle can be broken by black students who have access to information about better educational and occupational opportunities. They support Granovetter's theory of the impact of weak ties on the diffusion of influence, information, and mobility opportunities to different segments of society for the minority. This led to the reason why focusing on Network Analysis to examine the phenomenon of faculty's acclimation into the mainstream of pedagogy reform.

Network Analysis

Network Analysis has emerged in social and behavioral sciences as a set of concepts and methods in such a distinct perspective to examine a social phenomenon focusing on social entities and relationships among them. The central principles underlying the network perspectives postulated by Wasserman and Faust (1994) are the relational concepts. According to Wasserman and Faust (1994), "the social network perspective views characteristics of the social units as arising out of structural or relational processes or focuses on the properties of the relational systems themselves" (p. 8). The phrase "social network" refers to the set of actors and the ties among them.

Social networks are the central concept in explaining the phenomenon of Black or minority students' perpetuation of racial segregation and how school desegregation breaks down the self-perpetuating cycle. In macro-level, school desegregation is a social intervention strategy that affects intergroup attitudes and interaction pattern in Black communities which leads to the change of their social network composition. In the part of micro-level, individual minority attitudes, belief of racial fear and distrust are

acknowledged. Wells and Crain (1994) elicit from Braddock's work "the micro-macro connections inherent in the flow of information and opportunities through interpersonal networks" (p.534). The term *social mobility* was used as an important variable to measure micro-foundation of individuals, and their response to the changing social environment (Breiger, 1990; Granovetter, 1973; Tsoukalas, 2007).

The long-term effects of school desegregation are the consequences of the change in social network of black students and affect Black students to accommodate the need for change or social mobility—the aspirations of high school students, educational attainment, and occupational attainment and adult social network (Wells & Crain, 1994). Blacks who attend desegregated schools may develop networks and move into the society's mainstream in a number of ways, while others were never afforded the opportunity to test their racial belief and remain reluctant to test them and discover the alterations (Braddock, 1980).

Underlying this theoretical presentation is the presumption that interrelations between implementing strategy and network structures exist, and either positive or negative consequences may be created. Administrators as change agents "need to be aware of both intended or unintended outcomes as well as ways to identify the complex sets of outcomes that can result from the change process" (Kezar, 2001, p. 23). Cross, Parker, and Sasson (2001) offer insight for administrators by pointing out that despite their best efforts to create change, "Unfortunately, critical informal networks often compete with and are fragmented by such aspects of organizations as formal structure, work process, human resource practices, leadership style, and culture" (p. 8).

Wellman (1983) emphasizes that the most direct way to study a social structure is to analyze the patterns of ties linking its members while the pattern of ties in a network provides significant opportunities and constrains the access of people and institutions to such resources as information, wealth, and power. Among network theories that explain patterns of ties, Granovetter's theory of strength of weak ties is salient for this study. Granovetter (1973) posits that weak ties are indispensable to individuals' opportunities and to their integration into community, whereas strong ties, breeding local cohesion, lead to overall fragmentation. He suggests that demography, coalition structure, and mobility and with the help of network analysis are special important in developing micro-macro linkage.

To determine whether relationships in social network are weak ties or strong ties, Granovetter (1973) maintains:

the strength of a tie is a (probably linear) combination of the amount of time, the emotional intensity, the intimacy (mutual confiding), and the reciprocal services which characterize the tie. Each of these is somewhat dependent of the other though the set is obviously highly intracorrelated. (p. 1361)

Strong ties would include close relationships between individuals with similar thoughts and backgrounds. Strong ties involve larger time commitment, "the more frequently persons interact with one another, the stronger their sentiments of friendship for one another are apt to be" (Homans, 1950, p. 133).

However, weak ties of an individual are his or her acquaintances comprising a low-density network (Granovetter, 1983, p. 202). Weak ties provide inevitable contributions for social networks in many aspects; "From the individual's point of view,

then, weak ties are important resource in making possible mobility opportunity” (Granovetter, 1973, p. 1373). He points out that “no strong tie is a bridge.” (p. 1364). The concept of a “bridge” is described as the only route along which information or influence can flow from one person or a network to another. Bridging weak ties are important channels through which ideas that are socially distant from an individual may reach him or her. In the macro social environment “Weak ties are more likely to link members of different small groups than are the strong ones, which tend to be concentrated within particular groups.” (p. 1376). There is a similar notion about weak ties from Tindall and Wellman’s (2001) work, “...sparsely-knit and loosely-bounded community networks are social resources that ramify across changing, fragmented communities to connect people to the diverse resources of multiple social arenas.” (p. 274). It is important to remember that Weick claims higher education institutions are loosely coupled (Weick, 1991). Weick notes that adaptability is characteristic of loosely coupling, and change in loosely coupled system is continuous and improvisational rather than planned.

There was an exceptionally useful notion of network analysis: Granovetter’s (1973) argument of weak ties and community organization allows me to predict differential capacity of communities to act toward common goals from the structures of ties in particular community. He suggested “...examination of the network of ties comprising a community to see whether aspects of its structure might facilitate or block organization” (p.1373), and “Trust in leaders is integrally related to the capacity to predict and affect their behavior” (p. 1373).

My addition assumption for this study is that faculty who were embedded in social network comprised of bridging weak ties are more likely conferred social mobility

into the society's mainstream of pedagogy reform. Conversely I assume that faculty are encapsulated by their networks that are made up of strong and nonbridging ties.

In summary, using Perpetuation Theory and Network Analysis lenses to examine faculty communities provided possibilities to understanding social structures and processes at both the macro and micro levels in higher education institutions while interacting with the society's mainstream of pedagogy reform. The knowledge of social structures and processes is well beyond the normative prescription of formal structures and work processes which allows for useful applications in management and speculation on the future of change in university pedagogy.

Operational Definitions

Key concepts of the study include pedagogy, progressive pedagogies, teacher-centered, learner (student)-centered, networks and ties, micro-macro connections, and social intervention. They are operationally defined as:

1. *Pedagogy*. van Manen (1994, 2002) captures the essence of pedagogy as it is operationally defined in this study. Pedagogy has at its root the relationship between teachers and students. "The very term pedagogy already brings out the relational quality between teacher and student, in a manner unlike any other educational concepts such as curriculum, instruction, or teaching" (van Manen, 1994, p. 140), and, "It's only in certain relational contexts that the thinking life, the developing identity, the moral personality, the emotional spirit, the educational learning, and sociopsychological maturing of the young persons occurs" (van Manen, 1994, p. 141).

The relationship between pedagogy and teaching is also addressed by van Manen (1994). “Teaching, as a pedagogical interaction with children, requires not only a complex knowledge base but also an improvisational immediacy, a virtuelike normality, and a pedagogical thoughtfulness.” (p.139). Pedagogy is the “how” of teaching (Cuban, 1993). Teaching methods, also known as teaching strategies, describe the various types of activities faculty employ when teaching (Billings & Halstead, 2005). Teaching methods so represent one dimension of pedagogy. The focus of this study is on “how” teachers teach and their beliefs about the quality of relationship between teachers and learners. Understanding pedagogy is the aim of this investigation.

2. *Progressive Pedagogies*. Progressive pedagogy is claimed to be student-centered pedagogy (Cuban, 1993). See Student-Centered Pedagogy below.
3. *Teacher-centered instruction*. Cuban (1993) explains that the two traditions of teaching are anchored in different views of knowledge and the relationship of both teacher and learner to that knowledge. He maintains:

In teacher-centered instruction, knowledge is often (but not always) “presented” to the student, who—and the metaphors from different eras and places vary—is a “blank slate,” a “vessel to fill,” or “a duck to stuff”. (p. 8)

Teacher-centered instruction means that a teacher controls what is taught, when, and under what conditions within a classroom. (p. 6)

4. *Student-centered instruction*. Cuban’s (1993) definition of student-centered instruction is used in this study as follows:

In student-centered instruction, knowledge is often (but not always) “discovered” by the student, who is “rich clay in the hands of an artist” or “a garden in need of a masterful gardener.” (p. 8)

Student-centered instruction means that students exercise a substantial degree of responsibility for what is taught, how it is learned, and for movement within the classroom. (p. 7).

5. *Ties and Social Networks*. Social networks and ties are explained by Faust and Wasserman (1994) as relations defined by linkages among units or actors are a fundamental component or flow of network theories, and these relational ties (linkages) between actors or channels for resources either material or nonmaterial. The phrase “social network” refers to the set of actors and the ties among them. They emphasize that the unit of analysis in network analysis is not the individual, but an entity consisting of a collection of individuals and the linkages (ties) among them. According to Coombs (1973), “the theory of social networks is grounded in two elementary postulates that have been with us for some time: (1) people are in some sense ‘linked’ or ‘joined’ by ties of affect, trust, right, obligation, or expectation; (2) these social ties exert an influence on the behavior and cognition of the participants” (p. 96).

The definition of “ties” is illuminated by Granovetter (1973) as simply the interaction between two individuals. He maintains that ties are measurable and are categorized as either strong or weak ties. Many researchers support the identification and measurement of ties using the “time,” “intensity,” “intimacy,” and “reciprocity” characteristics proposed by Granovetter (1973). Granovetter

(1983) postulates that strong ties between people—e.g. kinship, friendship, love—tend to have an inbreeding and isolating social effect, while weak ties—e.g. acquaintance, collegiality, neighborliness—tend to have bridging and integrating function.

6. *Micro-Macro Connections.* Micro-macro connections is the concept of social process that relates the micro and macro level of social structures. According to Granovetter (1973), the macro level of social structure is referred to community, organization, and political structure, while the micro level is referred to individuals and small groups in society. Granovetter's Strength of Weak Ties (1973) and Braddock's Perpetuation Theories (1980) both explain the role of interpersonal networks in bringing the micro to macro level of social structures. Information, ideas, and influences most likely flow through the interpersonal networks.
7. *Social Intervention.* Social intervention was mentioned in the study of Braddock's (1980) Perpetuation Theory as a way to bring about change across micro-macro connections. In his research, desegregation was the social intervention. He found that racial segregation in schools engendered a form of social inertia and avoidance learning. The social intervention of desegregation he found served to break down the self-perpetuation of racial segregation in America (Braddock, 1980). Braddock (1980) claims that school desegregation practice has affected the networks of minority groups, resulting in opportunities to connect to the society's mainstream. University's policy, programs, or measures which are intended to change teachers' practice in this study are perceived as social interventions.

Procedures

The explanatory case study research method (Yin, 1994) was used for this study. The study design was derived from Yin's (1994, 2003) explanatory case study since the questions of the study mainly involved how and why of the faculty's pedagogy reform. According to Yin (2003), case study research is appreciative when "a 'how' or 'why' question is being asked about a contemporary set of events over which the investigator has little or no control" (p. 9). Yin (1994) also asserts that the case study is a research strategy comprising all encompassing method—with the logic of design incorporating specific approach to data collection and to data analysis. An embedded, single-case design (Yin, 1994) was engaged in this study. PSU was the case, and selected faculty were incorporated subunits of analyses.

Merriam (1988) elaborates: "A case study can test or build theory, incorporate random or purposive sampling, and include quantitative and qualitative data" (p. 2), and case studies offer insights into the phenomenon under study by emphasizing description and interpretation within a bounded context. Yin (1994) claims that the case study allows generalizing results to theoretical propositions but not to population or universe.

Approval to conduct research protecting human subjects was secured from the study site administrators and the Institutional Review Board of Oklahoma State University. Those approvals are included in Appendix A

Researcher

I, as a researcher of the study, have formally worked as a faculty member at Prince of Songkla University for 15 years teaching administration and marketing for pharmacy students. My educational backgrounds were in the areas of pharmaceutical

sciences and business management. Currently I serve the University as a full time faculty teaching for the Faculty of Pharmaceutical Sciences, and in addition I have to work for the University administration. Both of these positions provide a good opportunity to gain insight of the influence of administrative aspects on the effectiveness and efficiency of working processes, and organizational changes.

From my experience in three relating academic disciplines—a professional pharmacist, an educator, and an administrator, I presume that the majority of faculty teach as they were taught and they have been brought up by their own experience in teaching. When I work as an educator, I agree that experiences relating my field of work are useful for my teaching. Especially I am able to depict the extent of sciences needed for practitioners, and the connections with professionals in hospitals help me in teaching my students. The word “pedagogy” has been used only in the recent years and a focus on pedagogy has only occurred since the promulgating of the National Educational Act of 1999. However, the majority of faculty in the University have worked long before the National Education Act era. They are familiar with traditional, lecture-based teaching; their pedagogy is teacher-centered.

In conducting this study, I am cautious and must continue to cast the data against the literature and not base my interpretation upon my perspectives, preferences, and assumptions.

Data Needs and Sources

Naturalistic inquiry focuses on meaning of the context (Merriam, 1988). This method follows the process of observing, recording, analyzing, reflecting, dialoguing, and rethinking. Merriam (1988) maintains “naturalistic inquiry, which focuses on

meaning in context, requires a data collection instrument sensitive to underlying meaning when gathering and interpreting data” (p. 3). Methods suggested for collecting data of humans are those made of human sensibilities such as interviewing, observing, and analyzing. Purposive sampling and inductive data analysis are the ways of ensuring for credibility, and transferability. In terms of obtaining social network data, Wasserman and Faust (1994) suggest that structural variables measuring ties of a specific kind, between pairs of actors, and composition variables—the measurement of actor attributes can be included in network data. Network Analysis is based upon as assumption of the importance of relationships among interacting units. Egocentric network (Granovetter, 1973) or personal network (Wellman, 2007) method is undertaken for this study. Wellman (2007) asserts, “Personal network analysts are also well positioned to study the fundamental sociological question of the relative effects of ties and networks on behavior.” (p. 112).

The study included four faculty from health sciences as subunits, and administrators who involved in university academic affair. The study’s endeavors were to obtain qualitative data needed to explain the relationships developed among faculty and the facilitating measures from the university for the pedagogy reform.

Context of the Case Study and Unit of Analysis. The case study is about the social network of faculty at PSU. I presume that every faculty member works under the same organizational administrative environment. They are freely able to access the provision of pedagogy development from university. The case study will be conducted by purposively selecting faculty to examine how and why social networks involve the progression of his or her pedagogy. Four teachers will be selected from the different faculties of health

sciences depending on their reputation for outstanding teaching practice during the current decade.

Attempts were made to obtain data that are descriptive of the relationship between the respondents and their social networks. On the other hand, the data needed were the characteristics of the respondent's current pedagogy belief, most progressive pedagogy he or she learned and used, and the situation when the change in their pedagogy might happen.

Data Collection

Yin (1994) suggests six important sources of evidence used for case studies, namely documentation, archival records, interviews, direct observation, participant-observation, and physical artifacts. In this study, three data collection strategies were employed: documentation, interviews, and direct observations.

Data Analysis

Yin (1994) asserts two general analytical strategies, "one relying on theoretical propositions and the other beginning with a descriptive approach to the case" (p. 103), and using them as a part of specific analytical techniques. In this study the specific technique: *pattern-matching* logic (Yin, 1994) was used to analyze the findings. These strategies for analysis would compare the pattern of events found in this study with the predicted ones. According to the theoretical frame of this study, it is the sociological process which affects and changes individual's social structure or networks. This process breaks the cycle of social inertia in changing faculty pedagogy. In this manner, analytical generalization (Yin, 1994), the generalization of the findings to the theoretical propositions, was able to occur.

The theoretical proposition describing patterns of faculty's social networks in this study was based on Granovetter's Strength of Weak Ties Theory. Sociograms indicating the weak and strong ties between the respondent, and direct and indirect connections with alter (Granovetter, 1973) were created and used to describe the social networks present within each faculty. The solid line indicated strong ties; the broken line indicated weak ties. Data analysis would seek to provide information on Granovetter's (1973) four characteristics regarding ties that contain in each participant: 1) amount of time; 2) emotional intensity; 3) intimacy; 4) reciprocal services.

Significance of the Study

This study revealed significant results to three inevitable areas including theory, research, and practice.

Theory

This study explored pedagogy reform by the service of Social Network Analysis and Perpetuation Theory. Both theories provided useful guidance to explain the phenomena of why and how faculty responded to the society's mainstream of pedagogy reform and university's strategy implementation for pedagogy. The success of this approach will clarify or augment Social Network Analysis and Perpetuation Theory for use in Thai higher educational settings. With more successful experiences of using the theories as a theoretical frame in explaining social phenomena in different context, the more powerful they will be.

Research

This study investigated how faculty develop and sustain progressive pedagogy and the evidence illuminating the interplay between the university measure and social

structure that ties among the faculty. In addition, this study will open up researching in sociological aspect for Thai educational reforms; more researches could be expected in foresight. Currently doing research is one of the suggestions for policy makers to enhance Thai education reforms (ONEC, 2005).

Practice

This study enhanced the practice of education in two levels. On one hand, administrators in higher education will have a fresh additive of social network solution to fulfill the strategy in moving teachers into the society's mainstream. On the other hand, the findings of this study will lead the way for faculty to search and develop more bridging ties to foster their success in their mission and professional goals.

Summary

The purpose of this study was, through the lenses of Network Analysis and Perpetuation Theory, to examine the ties that exist among university faculty and to understand how and why PSU faculty engaged in progressive pedagogy. A qualitative approach was undertaken to gain insights and reconstruct new knowledge about using faculty social networking to foster pedagogy reform in a university setting. This study is useful not only to administrators in higher educational settings, but also to individuals who are interested in studying personal networking and the applications.

Reporting

The study followed an outline. Chapter II reviewed the literature, and Chapter III described research methodology used to complete the study. Chapter IV presented the data collected. Chapter V analyzed and interpreted the data. Finally, Chapter VI presented the summary, implications, conclusions and discussion.

CHAPTER II

REVIEW OF LITERATURE

This literature review encompasses related studies and literature regarding the evolution of Thai higher educational system in the age of reform and the matters of pedagogy, the role of interpersonal networks relative to interconnection of individual or group of faculty to the social mainstream of pedagogy progressives, and a review of the applicability of perpetuation theory and network analysis to the study of social networks.

Thai Higher Education System and the Age of Reform

The role of higher education as an essential linkage between the whole educational process and the entire world is undeniable in the age of educational reform. Watson (1981) described that higher education institutions has become increasingly multifarious and were expected to fulfill appreciative roles on economy development and people's well being. He raised various key roles both producing manpower at the highest level necessary for the development and producing new knowledge with the importance of application of the existing knowledge. Since the great economic crisis hit the whole country in 1998, the roles of higher education in Thailand have been revisited and re-examined regarding the public expectation on the education system (ONEC, 2001). Higher education in Thailand is currently recognized as an essential system for human

resource development, especially in this era of globalization, where a country's international competitiveness depends a great deal on the capability of its citizens to thrive in a knowledge-based economy and society (Office of the Education Council: OEC, 2006).

Higher Education System and Administration for Thailand

The National Education Act of 1999 defined higher education as that which continues from the basic education (ONEC, 2001). Higher education at the diploma, associate, and degree levels is provided in universities, institutes, colleges, and other types of institutions (OEC, 2006). Thai higher education institutes are traditionally dominated by the public sectors with growing number of private sectors (OEC, 2003).

Higher education system in Thailand was drastic affected by the National Education Act of 1999 (ONEC, 2001). According to OEC (2004), the major structural changes of higher education were outlined by the Act. This included the amalgamation of the Ministry of Higher Education into the Ministry of Education, and the higher education system is supervised by the new Commission on Higher Education (OEC, 2006). There would be more freedom to provide educational services, but with the requirements of quality assurance. By the new administration structure, the Commission on Higher Education undertakes the roles of proposing policies, development plans, and standards for higher education, and supervising and evaluating of the provision higher education (ONEC, 1999a; OEC, 2006). Clearly there are direct influences on universities operation from the Commission on Higher Education agency by this new educational system, and quality according to the standard requirements will play undeniable role affecting higher educational institutions in the coming decades.

According to the National Education Act of 1999 amended in 2002 (ONEC, 2002), the Ministry of Education is responsible for promoting and overseeing all levels and types of education under the administration of the state. The decision making authority was also reoriented according to the educational reform: public higher education institutions are able to enjoy flexibility in administration and management by transforming to be state-supervised or autonomous universities under the supervision of the institutional council empowered by their own Acts (OEC, 2003). It was the suggestion of the Asian Development Bank (ADB) as a consequence of the great economic crisis 1997 for all public universities to become autonomous and Thai Ministers decided to do so (Sangnapaboworn, 2003).

Influences of Globalization on Thai Higher Education

The higher education system was historical begun in Thailand in 1887 (Suwanwela, n.d.). The first Thai university was Chulalongkorn University opened in 1917 (Watson, 1981). Charas Suwanwela, Professor Emeritus of Chulalongkorn University and the member of the Regional Scientific Committee for Asia and the Pacific, evidenced that “The main objective in creating university was the importation of knowledge from western countries for the modernization of Thailand.” (p. 2). Evolution of Thai higher education is well presumed since the establishment of modern system of higher education during 1932 – 1977 and it was promoted by the National Scheme of Education in 1936 (ONEC, 1998). Education has been assigned to assume a full functional role as an instrument for development since the first National Economic and Social development plan in 1960 (1998). During the early time, the main objectives of

education in Thailand were directly linked to the economic development and focused on providing medium-and-high-level manpower needed for growing economy (1998).

The National Education Scheme has been adapted over the past decades due to the changing external and internal environment of social, economic, and political aspects. ONEC reflected the importance of globalization movement in the new era of national education, “Thailand is now confronting the most drastic social changes from within and from its interconnectedness with the complex and rapid changing world. Such changes are too overwhelming for both individuals and society to cope with” (ONEC, 1998, p. 3).

Globalization has sustained its influence on Thai economics and society and has resulted in increased dependence on technology in the age of new education reform due to the economic crisis in 1997 (OEC, 2002). Globalization and internationalization were the main challenges of Thai education reform from the mid-1990s (Fry, 2002, September). Gerald Fry, a professor of international and intercultural education who helped ONEC studying the education situation and prepared data for ADB, depicted the basic premise of the education reform as “Thailand to be internationally competitive, it needed to internationalize its educational system to prepare its young people for an increasingly intercultural global era” (2002, p. 14). In the age of 21st century, globalization was perceived as major driving force for changes in countries by Thai policy makers (ONEC, 2001). It affected the needs for human resources regarding knowledge, capability, and characteristics. Social as well as educational reform was thus indispensable in order to strengthen all sectors of the society and would consecutively contribute to social and economic development for the country.

Dr. Rung Kaewdang, Secretary-General of the National Education Commission Thailand addressed the situation of education reform in the final report on the second international forum on education reform 2002 (ONEC, 2002a), “It is widely recognized today that an on-going process of education reform is essential in order to adjust ourselves to an ever-changing world driven by the globalization of economies and a technological revolution” (p. 1). ONEC who is the central body in charge of formulating policy and plan for national education made a pledge when proposing the National Education Act of 1999, “The urgent needed reform will undoubtedly redeem the country from the downward spiral, so that Thailand will arise in the immediate future as a nation of wealth, stability and dignity, capable of competing with others in this age of globalization” (1999a, p. 1). “With drafting National Education Act (1999), there is a shift in philosophical underpinning a major overhaul of the education system” convinced Fry (2002, p. 18). National competitiveness and self reliance with strong community and efficient management are the aims of education reform, and higher education was seen as an important enabling factor for the success of the national development plan (Suwanwela, n.d.).

Higher Education Reform of Thailand

The new era National Education Reform in Thailand was initiated and catalyzed by the economic crisis in 1997. The crisis was the witness of the poor Thai human resource development as it had been revealed by the Office of National Education Commission (ONEC), “Many have highlighted the lack of Thai graduates capable of independent analytical thought as one factor responsible for the country's economic downfall” (1999b, p. 1). Fry (2002, September) also evidenced that “Thailand’s current

educational reform initiatives stem from the shock of the Asian economic crisis” (p. 17). At that time, Thai government realized that it was the time to make a change for the national educational system, and must be enough to cultivate the intellectual capabilities of its citizens in the age of globalization (ONEC, 1999b).

From the year of economic crisis 1997, ONEC made efforts to bring about national education improvement to help the country to turnaround. A list of necessary measures was conducted to ensure the effectiveness of the reform including learning successful experiences of other countries and inevitably preparing legal provision (ONEC, 1999a). The National Education Act of 1999 was prepared by ONEC and the bill was successfully approved by the House of Representatives on July 1, 1999. The Bill has become the country’s master legislation on education which provides the framework for education reform (ONEC, 1999a). Major aspects of the reform include learning reform and administrative structure adjustment for the country’s education system (ONEC, 1999a). Since then, a learner-centered approach becomes imperative and instructors need to learn new roles as facilitators and advisors (Khemmani, 2006). The Act has represented an unprecedented and long over-due break from traditional Thai educational norms such as lecturing and rote learning and instead sets the foundation for a more creative, questioning approach to studying. It was the hope that Thais would be developed towards more analytical and independent thought leading to the knowledge-based and learning society (ONEC, 1999b).

The reform of higher education was issued as the result of rapid economic, political, social, cultural, and technological changes due to globalization movements (ONEC, 2001). Thai higher educational reform was formulated in line with the National

Education Act of 1999, and was clearly practical implemented when the Strategies and Roadmap for Higher Education Reform in Thailand was approved by the Council of Ministers on September 16, 2003 (OEC, 2003).

Focus of the Reform

Reform, according to Kezar (2001), “refers to an innovation that is typically exerted from the top of a system or organization, or from the outside the organization” (p. 14). Higher education reform in Thailand is considered as a planned movement from the top of educational system which intends to improve the overall system. The main foci of the reform regarding the Strategies and Roadmap for Higher Education Reform (OEC, 2003) can be categorized as structure and process. That is to unify the administrative structure and to strengthen the process producing graduates. The reform of administrative system and structure of education is consistent with the major concerns of the higher education system which has been unable to attune itself to timely respond to global changes, and consequently undermining effectiveness of national capacity-building. There is concern about the quality of educational provision, and efficiency in management as well (ONEC, 2001).

However, many concern about the quality of teaching and learning in higher education. Sangnapaboworn (2003, December) elaborated that the teaching and learning in higher educational institutions were perceived as having place of too much emphasis on memorization and contents, which did not relate to the real situation. Students were not sufficiently cultivated with necessary skills for self-learning, critical thinking, problem solving and creative ability. Hallinger (2005) gave a convincing illustration of the quality of higher education,

These same inadequacies have been identified in Thailand's system of higher education where there has been a traditional emphasis on memorization and reproduction of knowledge...It, therefore, comes as no surprise that the predominant methods of teaching and learning in use—lecture and discussion—are not well equipped to develop these cognitive, attitudinal and skill capacities.

(p. 2)

The concerns in quality of higher education have led to the attempts of some major universities to change from didactic teaching to more effective forms such as inquiry, self learning, problem-based learning, or else (Suwanwela, n.d.). Mr. Amaret Sila-on (ONEC, 2002a), Chairman of the Executive Board Office for the Education Standards and Quality Assessment, presumed if real education reform would occur in Thailand, with important direct consequences on the quality of future Thai leaders and citizens, depended on whether the concept of student-centered education could in fact be successfully implanted into Thai culture. He emphasized “for every Thai child to be stimulated so that he/she can develop to his/her full potential, the role of the teacher in Thailand will have to change from that of an omniscient ‘guru’ to that of a facilitating ‘coach’” (p. 92).

Learner-oriented education had been developed after extensive research was conducted by ONEC, and close scrutiny by scholars (ONEC, 1999a). According to the National Education Act B.E. 2542 (ONEC, 2002), learning reform is at the heart of all concerned. The Section 22 states, “Education shall be based on the principle that all learners are capable of learning and self-development, and are regarded as being most important. The teaching-learning process shall aim at enabling the learners to develop

themselves at their own pace and to the best of their potential” (2002, p. 4). Professor Emeritus Dr. Prawase Wasi, chairman of the Learning Reform Sub-commission claimed that learning with the focus on learners or a learner-centered approach meant learning in a real situation, and teachers should facilitate their students to learn from experience, activities, and work (Sub-Committees on Learning Reform of the National Education Commission, 2000). He believed that the development of learners would be in all aspects – physical, mental, and spiritual. He urged teachers, parents, students, administrators, and all concerned to be appreciative of learning reform; particularly teachers would refrain from simply transferring subject matter to fully appreciate the potential of individual students with love and attention, and learned on an interactive basis with their students in real situations.

More concern about how good learner-centered approach is perceived by people who are responsible for education. According to Sila-on (ONEC, 2002a), many people associated with education in Thailand do not really understand what student-centered learning is. Clarification of the learner-centered concept to practitioners including educators, administrators, teachers, learners, and all concerned with educational provision has been emphasized by the Sub-Committees on Learning Reform of the National Education Commission (2000). Teaching by learner-centered approach has been unfamiliar for Thai teachers, administrators and parents who dwell in their traditional teaching circumstance for a long time (Sub-Committees on Learning Reform of the National Education Commission, 2000).

Intuitively, attitude of teachers can be assumed another focus of change in Thai educational reform. According to Kezar (2001), “becoming more student-centered or

having a more intellectual environment might be an attitude change with no structural or process changes” (p. 19). Senge (1990) asserts that a change in structure without a change in attitude does not really reflect change. Teaching methods and the role of teachers relating to their students, and teachers themselves are thus indispensable element of the quality of higher education and are vulnerable to reform. How teaching methods and the role of teachers relate to the term *pedagogy* will be reviewed in the following section.

The Matters of Pedagogy in Thai Educational Reform

“Learner reform is at the heart of education reform” said Wasi (Sub-Committees on Learning Reform of the National Education Commission, 2000, p. I). However, Wasi believed that adopting the learner-centered did not result in lessening teachers’ roles or their importance, but they would play more prominent roles to enable their students to learn leading to development in all aspects—physical, mental, social and intellectual. Teachers as convinced by Darling-Hammond (1997) are the critical elements of successful learning because teachers are those who know a lot about teaching and learning and who work in environments that allow them to know students well. By this sense, teaching reform is therefore indispensable for Thai educational reform.

Foundation of Pedagogy

Recognizing the importance of teaching and learning reform in fostering Thai education reform, pedagogy is the word that may explain most of the situation of teachers and their teaching methods, and the roles that reflect the required relationship with their students to enhance them to learn. *Pedagogy* by meaning is ‘the study of teaching methods’ (Wehmeier, 2000), or “the methods and principles of teaching” (Rundell, 2002,

p. 1028). However the meanings in this broad sense seem not enough to reflect what the education really means for student development.

From my literature review, Max van Manen (1994, 2002) is the person who may mostly involve the concept of pedagogy. His works with researching lived experience methodology has articulated pedagogy in many aspects including education. van Manen (2002) proposes, “I will adopt the word pedagogy here to avoid and possibly correct two dangers of the temporary discourse in education: (1) to restore a forgotten or absent relation between adults and children, and (2) to remove some of the barriers that prevent ‘educational’ thought from being truly educational” (p. 30). Pedagogy, according to van Manen (2002), is the *influence* between educators and students, not all influence but the one with *pedagogical intent*. He maintains that the notion of pedagogy always assumes that there exists a personal learning relationship between people, usually between an adult who is an experienced person and a child who is a relatively inexperienced or not-so-yet mature person. Through this relation pedagogical influence can flow and brings something into being for the child in real-life situations, and the child will grow and be developed. In van Manen’s point of view, pedagogy is the excellence of teaching because it helps identify the essence of true teaching (2002).

Walker (2006) takes pedagogy to mean the method of teaching as well, but in the widest sense. Melanie Walker is a professor of higher education at the University of Nottingham. She prefers to extend the meaning beyond only the role of the lecturer or teacher. “It (pedagogy) involves not only who teaches, but also who is taught (and of course is interwoven with what is taught—the curriculum), and the contextual conditions under which such teaching and learning takes place” (2006, p. 12). In van Manen’s point

of view, pedagogy does not equate instruction, or curriculum (van Manen, 2002). The terms pedagogy and teaching are interrelating but they are not identical. He explains how teaching closely relates to pedagogy:

Teaching, as a pedagogical interaction with children, requires not only a complex knowledge base but also an improvisational immediacy, a virtuelike normativity, and a pedagogical thoughtfulness that differs from the reflective wisdom (phronesis) of other practitioners. The classroom life of teachers is difficult especially because it is virtuelike, improvisational, and pedagogical. (1994, p. 139)

In addition, Dewey (1916) emphasized that “nothing has brought pedagogical theory into greater disrepute than the belief that it is identified with the handing out to teacher recipes and models to be followed in teaching.” (p. 199). *Pedagogy* is therefore prominent for the education reform, however, the term is rarely familiar to the University. The term *pedagogy* re-emerged on PSU’s administrative terrain in a seminar of the Meeting of Deans titled “Present Future Teaching and Learning of PSU” in May 2008 (Siribumrungsukha, 2008) after a long time absence.

Clearly defining of the related terms for education helps understand more about what and how educational reform strategies apply on teaching and learning process to appreciate the principle of education reform of the National Education Act. Tanner and Tanner (2007) propose that the terms teaching and instruction are generally interchangeable, and that teaching is used in a broader sense as a vitally shared of experience in the art of communication while instruction appears to be largely behavioristic such as narrow sequencing of material, specifying and pacing reward and

punishment. They also propose the definition of curriculum, “that reconstruction of knowledge and experience that enables the learner to grow in exercise intelligent control of subsequent knowledge and experience” (p. 121). In particular, van Manen (2002) precisely defines the meaning of these terms as the following:

Again, one difference is that *pedagogy* describes a wider domain of adult-child relations than teaching. The term *teaching* is usually applied to more formal influence in school teaching or in church teaching of religion. The term teaching is less commonly applied to parenting and other influences by adults on child. Sometime teaching is referred to as the content of the relation between a learner and some aspect of the environment. In contrast, the notion pedagogy always assumes that there exists a personal learning relationship between people, usually between an adult and a child. (p. 29-30)

An immediate difference between the notions of curriculum and pedagogy is that the former tends to focus on the stuff of education and on the organization, management, planning, structuring, selecting, justifying, and programming of subject matters and teaching and learning process. The term *curriculum* tends to orient us away from the young person toward the structures and phrases of study at an educational institution. The term *pedagogy* by contrast tends to bring out the human or personalistic elements of education and childrearing. (p. 29)

Instruction is more impersonal and less subjective term than *teaching*. The use of *instruction* suggests a desire to stick to the more systemic, classifiable, and measurable interactions and interventions that educators use to implement the curriculum. Curriculum and instruction often imply a view of educating children

that is a producing of planned teaching/learning outcomes and other educational objectives. (p. 29)

The exceptional point which makes pedagogy different from other terms like teaching, instruction, curriculum, or even education is pedagogical intent (van Manen, 2002). Pedagogical intent is aimed at strengthening as much as possible intentions and qualities of the child, and the child's contingent possibilities for positive being and becoming. van Manen (2002) deliberates the becoming of a child as a change of self which is tied to the special character of the world of the child—knowledge, emotions, interests, feelings, skills, and understandings. Any pedagogical intention needs to respect the child for what he or she is and what he or she can become. “We need to realize that pedagogical intents are not simply intellectual convictions or curriculum plans and learning objectives that we have committed to paper. Pedagogical intents are involved in all our active and reflective distinctions between what is good and what is not good for a child” asserted van Manen (p. 19).

Pedagogy and Higher Education

Focusing on higher education, Walker (2006) uses the service of pedagogy to connect broader social trends with student learning opportunities and outcomes, and to suggest hopeful possibilities for future. She proposes the essential of pedagogy in higher education in this way:

Higher education, as with the schooling that precedes it, involves a remaking self, a process of identity formation, as new knowledge and understandings develop and previous knowledge of self and of the world is reframed in a process of learning. But we cannot guarantee that this reframing will occur, or insist that it

occurs in the way we might wish. We can, however, provide that pedagogical conditions—“educate in such a way”—that educational development that supports human flourishing is enabled. (2006, p. 19).

Teaching alone is therefore not enough to help higher education to fulfill its ultimate aim of educating graduates according to Walker (2006).

The importance of pedagogy for higher education is supported by Barnett and Hallam (1999). They perceive in the way that pedagogies enable graduates purposively to effect change in the world of uncertainty, challenge and turbulence, and to have the enduring will to do so. “Responsibility is placed on the self for surviving in an uncertain world. In turn, if this call is to be heeded, pedagogies in higher education will presumably need to be those that foster such human qualities” (Barnett & Hallam, 1999, p. 138).

Pedagogy and the National Education Act

The concept of *pedagogy* helps fulfill the principle of the current education reform rather than teaching-learning itself in two accounts. First, pedagogical intent (van Manen, 2002) and pedagogical interaction contains the aim of strengthening the intentions and possibilities for positive being and becoming of a child as a change of self which is tied to the special character of the world of the child. Comparing with the National Education Act of 1999, the educational principle aims at the full development of Thai people in all aspects not only knowledge, but also other aspects including morality, integrity, and desirable way of life (ONEC, 1999a). Spiecker (1982) as cited in van Manen (1994) asserts that human development and personal becoming are only possible in a pedagogical relation. The consistency between the concept of pedagogy and the principle of education is also supported by Barnett & Hallam (1999).

The other account goes to the *learner-centered* approach. Learner-centered approach of the National Education Reform was elicited by many scholars in Thailand. A learner-centered approach becomes imperative, and there is essentially a shift from focusing on subject matter to focusing on human beings or learners according to the National Educational Act of 1999 (Sub-Committees on Learning Reform of the National Education Commission, 2000; Khemmani, 2006). Khemmani (2006) asserts that “This (learner-centered) approach necessitates a learner’s participation in perception, thinking, action, and evaluation. Teachers and instructors need to learn new roles as facilitators and advisors, design learning activities and experiences, provide encouragement, and assist learners in playing their new roles” (p. 118). Wasi gives an important notion of teachers and students relationship in this new approach, he proposes that love and attention need to be given to individual students in addition to varied learning experiences that serve students’ need, and based on real situations (2000). My intention is to compare the learner-centered approach with the concept of pedagogy.

When van Manen (2003) maintains that “Pedagogy orients us to the child” (p. 30), he means the orientation is by love or concern for children, not by the disinterested attitude of object. Pedagogical relation in education contains pedagogical intent which directs toward student’s growth and development. “Any pedagogical intention needs to respect the child for what he or she is and what he or she can become.” stated van Manen (2002, p. 19). The learner-centered notion in Thai National Education Reform is already meant to reside in the concept of pedagogy. However, van Manen (1994) concerns about the misinterpretation of the traditional child-centered (progressive) and knowledge-centered for the interest in pedagogy. He argues that “The question whether a teacher (or

school) is pedagogically sensitive is neutral toward the philosophical orientation underlying the teacher's (school's) program" (1994, p.139).

According to Cuban (1993), learner-centered instruction is used as a synonym for progressive practices. Parker's work in Quincy was claimed the beginning of progressive education movement by Tanner and Tanner (2007). Parker believed that methods of teaching should be patterned on the child's natural way of learning. Gallagher (2002) argues that the meaning of progressive in education was little consensus even the long movement since the late nineteenth centuries. In Cuban's point of view, progressive instruction differs from the traditional because it connects content to real-life situations, emphasizes on understanding concept rather than facts, and integrates content across disciplinary boundaries. In 1981 John Dewey supplied the theory and progressive educational model and he urged a changeover from traditional education to child-centered public school for all (Parker, 1993). Dewey wanted his students to become independent, knowledgeable, and contributing citizens.

In my opinion, the excellence of teaching can be appreciated by both knowledge-centered and learner-centered instruction. However, it is important to emphasize that faculty in the age of educational reform is honored for their attempt to adopt and cultivate pedagogical intent in addition to experience the learner-centered instructions. In this study I use the term progressive to reflect the development of faculty's pedagogy in the direction of the learning reform.

In summary, the very term *pedagogy* in educational discourse is fabulous and essential for those who are responsible for bringing up children to grow and develop to be mature adult, or enabling human flourishing. Pedagogy means more than teaching or

instruction, and curriculum for the sake of educational achievement. The concept of pedagogy covers the indispensable aspects of education achievement including learner's identity and knowledge. "Education will henceforth be the process of enabling students to acquire knowledge as well as moral values" emphasized the Sub-Committees on Learning Reform of the National Education Commission (2000, p. 1). The quality of teachers and pedagogical intent is undeniable ingredient for the achievement. Intentionally the principle of the National Education Act for teaching-learning is nicely consistent with the concept of pedagogy. "Pedagogy is the excellence of teaching" maintained van Manen (2002, p. 30). In a word, to achieve teaching excellence teachers need to undertake pedagogical intent and subsequently the education reform will reach the ultimate goal of Thai education.

Road to Teaching Excellence for Thai Universities

To begin with the problematic situation of teaching and learning process of Thai education, *lecturing like the sage on stage* teaching method and *rote memorization* learning style as mentioned early in the study are the root of educational problem of Thailand, the situation of teaching and learning quality of Thai universities is not an exception (Sangnapaboworn, 2003; Hallinger, 2005). *The Commission on Higher Education: CHE* (2008) reveals the weakness of higher education institutions, "over 140 under supervision of the Commission on Higher Education in 2007, low education quality, limited staff and resources, and with declining school students (p. 9). Clearly, it appears to be the intention of the National Education Act of 1999 to remake teaching-learning process to enable learners to develop themselves at their own pace and to the best of their potentiality (ONEC, 2002).

Looking ahead, the strategies to reform teaching and learning in higher education have mainly focus on the principles that higher education serves as a mechanism to enhance national competitiveness in the international arena of the country (OEC, 2003) with the awareness of the changing economic structure of the country, globalization, technological development and information-driven world (CHE, 2008). According to CHE (2008), in the age of globalization, the public expects universities as national prime movers for competitiveness. The reform of teaching and learning aims to enable the learners to acquire critical thinking skills and creative thinking, abilities for problem-solving, desiring for lifelong learning and self-dependence with capability of attaining social benefits (OEC, 2003). Mechanisms and guidelines for implementing the reform of teaching and learning in higher education (OEC, 2003) was established in accordance with the Strategies and Roadmap for Higher Education Reform and the National Education Act of 1999 (and amendment 2002). The current implemented strategies and measures to support teaching development can be summarized as in the following section.

National Provisions of Education Reform

To ensure the effectiveness of the education reform, the National Education Act did not only give the direction and concept of the reform, but also the provisional scheme that would lead to the adoption of the learner-centered approach. The provisions of educational standards and quality assurance, faculty staff development, and educational technologies were stipulated in the Laws so that educational institutions' participation in the National Education Reform would be ensured. These will generate influences on faculty staff, and can be illustrated as in the followings (ONEC, 1999a).

1. The Office for National Education Standards and Quality Assessment (ONESQA) was established to conduct external evaluation of educational achievement and a package of criteria and methods of evaluation for educational institutions was developed. By the Law, all educational institutions are subjected to receive external quality evaluation at least once every five years. There will be corrective consequences for any failure to meet the required standards.
2. The faculty staff development is promoted by the Law in order to enhance their capabilities and becoming highly respected profession. The State is obligated to allocate sufficient funds for the development and rewards.
3. Production and application of technologies for education is also promoted by the Law. Information technology and communication, and technologies for production and refinement of literacy media such as textbooks are supported by the State funds.

Officially Thai universities are obligated to comply with the scheme in order to earn quality of education management credit and financial support from the State. This is the way to implement the National Education Reform for Thailand.

What of the National Education Reform Affects Faculty's Pedagogy

Focusing on how the National Education Reform influences on faculty staff who dwell in their settings and work routinely, there are at least three governmental agencies that generate push and pull strategies to foster the higher educational institutions' function, namely CHE, ONESQA, and the Public Sector Development Commission (PDC). The newly established government agency by the National Education Act of

1999, CHE, takes the roles of monitoring, inspection, and evaluation of the provision of higher education (ONEC, 1999a). The role of PDC is to promote the good governance of governmental service by implementing tangible and intangible incentives (OPDC, n.d.). All these agencies work with universities on the educational quality standards and criteria (OQA, 2008b).

Among the implemented strategies to encourage faculty staff to adopt educational progressives, the quality assurance push significantly influences on the university's administrators. Change in educational quality will directly affect university's reputation and ranking. Universities are encouraged to work in accordance with the agreed quality standards (OQA, 2008b, OEC, 2004). In 2003 there was a ministerial regulation stipulating the system, criteria, and quality assurance methodology for higher educational institutions to conform (Royal Thai Government Gazette, 2003, August). The regulation engages universities and faculties to develop quality assurance system and prepare self-assessment report reflecting all the components of education quality.

To anticipate the governmental approach, PSU has developed the quality assurance scheme according to the regulation and the advice of ONESQA since 2001 and implemented across the university (OQA, 2008b). According to the resolution of the University Personnel Administration Committees (Division of Personnel PSU, 2003, November 10), the university engages the faculty administrators and faculty staff to participate in the education reform activities by putting this issue on the contracts called *terms of reference (TOR)*. The resolution said that all the deans and heads of department and faculty staff of the university are monitored and evaluated according to the TOR. There are TORs of the deans showing on the web site of the Division of Personnel PSU:

<http://www.personnel.psu.ac.th/per16.html>. The influence flows through the faculty administrators to individual faculty staff by contract mechanism. According to the Division of Personnel (2003, November 10), the TOR consists of key performance indicators (KPIs) which will be used for evaluation. However, these KPIs are not independent from the university's policy. How the university perceives what are effective to reform faculty staff pedagogy is reflected in the quality assurance scheme (OQA, 2006, 2008a).

Regarding how faculty staff can learn how to teach, it is necessary to review the teacher training and development in Thailand. Teacher training is undoubtedly the required strategy for higher education as many admit that the problem of inadequate teaching capability is persistent in higher education system. The situation of teacher training in Thailand is revealed by ADB (2002, March) that "The present approach to teacher development in Thailand is very fragmented causing a lot of confusion and duplication" (p. 20). ADB calls for a national framework for teacher development. For the higher education, OEC (2003) proposed to establish a system for continuous development of faculty staff. The Commission on Higher Education (2008) also set up a plan for staff development as "New dimensions must be brought into staff development, namely mentoring in teaching, learning and university management, research capacity strengthening, appreciation of and expertise in profession relating to respective academic disciplines, and socialization process" (p. 11-12). The expectation for faculty from CHE's point of view is more than teaching. Faculty need to be capable for other undeniable roles like researching as well. However, currently faculty staff development still depends on individual university and waits for the time to be realistic.

Networking of universities among the various dimensions in teaching, researching, staff development, and community services is appreciative and will be promoted by incentives (CHE, 2008). The networks are expected to increase efficiency and to build mutual trust among faculty staff. From my literature review, I found that there was no formal linkage between teacher agencies and faculty staff in universities. Teacher agency like the Teacher Council of Thailand is legally responsible for supervising and licensing teachers who teach in the lower level of education not the higher education (Royal Thai Government Gazette, 2003, June). However, universities have contributed in teacher education. According to ADB (2002, March), there are 229 university faculties of education that are engaged in teacher development, mainly in education research and postgraduate training.

Summary

As universities in Thailand experienced the National Education Reform and the unavoidable competition in the world of globalization, they were expected to cultivate graduates of quality, capable of lifelong work and adjustment to support sustainable development of Thailand. In so doing, teachers or faculty (as we always use this word for those who work in higher educational institutions) is the critical element for the success of the educational reform. However, teachers or faculty are familiar with traditional teaching methods like lecturing. They are needed to be developed and encouraged to change their teaching according to the National Education Reform. Pedagogy is the excellence of teaching and it can explain most of the principle of the required education scheme. The idea of progressive education reflects the learner-centered teaching methodology dimension. Pedagogy is considered the appropriate concept for teaching

development. Universities including PSU are influenced by the national reform strategies, and contract mechanism called term of reference (TOR) formally engages university administrators and faculty to the mainstream of National Education Reform.

The Importance of Informal Relationships and Theories

Thai universities exist in a realm of a great divide, for example, size, budget, maturity, quality of staff and students, and reputation. Even though each university or discipline is excellent, without cooperation, synergy, and clear division of labor that would lead to building up specific expertise, serving the country of its complex and myriad needs would be difficult.—The Commission on Higher Education, Thailand. (2008, p. 12)

Thai universities are now in the world of globalization and competitive environment with fast moving of information technology. Higher education has experienced the attempts of the governmental agencies and needs to make a move to participate the social mainstream of National Education Reform. The National Education Act of 1999 has represented an unprecedented and long over-due break from traditional Thai educational norms such as lecturing and rote learning and instead sets the foundation for a more creative, questioning approach to studying (ONEC, 1999b). Planned change for faculty was established in higher educational institutions including push and pull strategies, namely strategic planning and quality assurance model as mentioned in the former section. However, change of how faculty teach seems slow and inadequate during the past decade. Theories of informal relationships inform alternative perspective of change and even more powerful.

Perpetuation Theory (Braddock, 1980; Wells & Crain, 1994) provides a useful conceptual framework to explain why faculty perpetuate teaching with the traditional pedagogy, and how faculty acclimate in a community setting. Network Analysis (Granovetter, 1973, 1976, 1983) allows not only the examination of teachers' ties and their impact on diffusion of influence and information, mobility and opportunity, but also can help in predicting differential capacity of communities to act toward common goals. Network Analysis and Perpetuation Theory will serve as the theoretical framework for this study. Both theories lend themselves to the naturalistic inquiry approach and provide useful lenses from which to examine the implementation of organizational strategies in fostering pedagogy reform in higher educational setting.

Perpetuation Theory

Braddock's Perpetuation Theory maintains that segregation tends to perpetuate itself "across the stages of the life cycle and across institutions when individuals have not had sustained experiences in desegregation settings earlier in life" (McPartland & Braddock, 1981, p. 149). Perpetuation theory emerged as a result of Braddock's (1980) study of the effects of social intervention like school desegregation on the behavioral outcomes. Braddock (1980) derived the theory from the former work of racial segregation in America especially Pettigrew (1965) who suggested that blacks were reluctant to full advantage of the educational opportunity of the school desegregation because of the uneasiness and uncertainty about the new situations and became self-perpetuation. Nevertheless, Braddock (1980) found that black students who were exposed to desegregated setting were more likely to attend a predominantly white college or university than their counterparts who graduated from segregated high schools. The

theory could be useful to explain the social phenomenon when social environment like university engender faculty's encapsulation in traditional pedagogy and avoid learning. Faculty who teach students by using the same traditional pedagogy from the beginning of their career and stay status quo along the way may be considered similar to the social phenomenon in Braddock's Perpetuation Theory since the macro status of traditional pedagogy is still prevailing despite the intentional national education reform policy.

Likewise, Hartrup (1998) supports Braddock's (1980) Perpetuation Theory. Hartrup (1998) makes a claim, "it is not only the environments to which a person is exposed that affect the individual's perception of those environments, but his or her subjective experience of them, that ultimately shapes that person's course of development" (p.85). Hartrup (1998) states that individuals purposely choose to function in specific environments which have particular norms and standards "by choosing to affiliate with certain peers" (p. 86). The choices accord individuals access to certain other peers. By this way the individuals also establish an indirect relationship with the peer' peers who likely operate in similar environments with similar norms and standards. Thus, perpetuation of norms and standards occur through the interaction choices made.

Wells and Crain's (1994) work helps incorporate Perpetuation Theory alongside with network theory to underpin the reality of how segregation and the isolation cycle of the minority is broken down because of the difficulty of gaining access to critical information. Whereas Perpetuation Theory elicits that social intervention strategy—school desegregation—has long-term effects on breaking down the self-perpetuating cycle of racial segregation in America, and that the intervention does facilitate the movement of Blacks into mainstream in a number of ways (Braddock, 1980). Wells and

Crain (1994) point out that there are various junctures at which the cycle can be broken by black students who have access to information about better educational and occupational opportunities. Braddock (1980) suggests that Blacks who attend desegregated schools may develop networks with people in the mainstream. Wells and Crain (1994) emphasizes, “Still, in our study of network analysis we are inspired by the old adage that who you know is as important (or even more important) in social mobility as what you know” (p. 533).

Granovetter’s (1973, 1983) network theory articulates the importance of the *weak ties* or informal interpersonal networks, which might consist of acquaintances and friends of friends through whom information, influence, and other opportunities can be dispersed. These weak ties are the conductors of the beneficial ideas that would otherwise be outside the individual’s experience and without weak ties the information, influence, and opportunity might not reach him or her (Wells & Crain, 1994). This leads to the reason why the study focuses on Network Analysis to examine the phenomenon of faculty’s acclimation into the mainstream of pedagogy reform. Faculty who have connections of weak ties which may be by chance or intentionally would have opportunities to break the cycle of teaching by traditional methods and confer pedagogical progressives of the social mainstream.

Network Analysis

Network Analysis has emerged in social and behavioral sciences as a set of concepts and methods in such a distinct perspective to examine a social phenomenon focusing on social entities and relationships among them. Cross, Parker, and Sasson (2003) elaborate: “It (network analysis) makes the invisible web of relationships between

people visible and thus helps managers make informed decisions for improving both their own and their group's performance" (p. 9). The central principles underlying the network perspectives postulated by Wasserman and Faust (1994) are the relational concepts. According to Wasserman and Faust (1994), "the social network perspective views characteristics of the social units as arising out of structural or relational processes or focuses on the properties of the relational systems themselves" (p. 8). The phrase "social network" refers to the set of actors and the ties among them.

Social networks are the central concept in explaining the phenomenon of Black or minority students' perpetuation of racial segregation and how school desegregation breaks down the self-perpetuating cycle. In macro-level, school desegregation is a social intervention strategy that affects intergroup attitudes and interaction pattern in Black communities which leads to the change of their social network composition. In the part of micro-level, individual minority attitudes, belief of racial fear and distrust are acknowledged. Wells and Crain (1994) elicit from Braddock's work, "the micro-macro connections inherent in the flow of information and opportunities through interpersonal networks" (p.534). The long-term effects of school desegregation are the consequences of the change in social network of black students and affect Black students to accommodate the need for change or *social mobility*—the aspirations of high school students, educational attainment, and occupational attainment and adult social network (Wells & Crain, 1994). Blacks who attend desegregated schools may develop networks and move into the society's mainstream in a number of ways, while others were never afforded the opportunity to test their racial belief and remain reluctant to test them and discover the alterations (Braddock, 1980). The term *social mobility* is used as an important variable to

measure micro-foundation of individuals, and their response to the changing social environment (Tsoukalas, 2007).

Tsoukalas (2007) claims that Granovetter's (1973, 1983) *Strength of Weak Ties Theory (SWT)* helps build a bridge to important question of how individuals and social groups accommodate the need for change in their life situation, and *social mobility* is one of the general strategies for adapting to a changing socio-economic environment.

Tsoukalas (2007) describes the term *social mobility* as a belief structure which implies that individuals perceive the boundaries of social groups as permeable. Individuals who want to further their personal and social standing may choose to move for a less attractive group to a more attractive one. He maintains, "Social mobility strategies leave the status quo unchanged by lessening the perception of interest conflict in society and weakening the cohesiveness and group action potential of subordinate groups" (p. 64).

Underlying this theoretical presentation is the presumption that interrelations between implementing strategy and network structures exist, and either positive or negative consequences may be created. Administrators as change agents "need to be aware of both intended or unintended outcomes as well as ways to identify the complex sets of outcomes that can result from the change process" (Kezar, 2001, p. 23). Cross, Parker, and Sasson (2001) offer insight for administrators by pointing out that despite their best efforts to create change, "Unfortunately, critical informal networks often compete with and are fragmented by such aspects of organizations as formal structure, work process, human resource practices, leadership style, and culture" (p. 8). Wellman (1983) emphasizes that the most direct way to study a social structure is to analyze the patterns of ties linking its members while the pattern of ties in a network provides

significant opportunities and constrains the access of people and institutions to such resources as information, wealth, and power.

Granovetter (1983) elaborates the importance of why to concern the strength of ties in social networks:

Ego (an arbitrarily selected individual) will have a collection of close-knit friends, most of who are in touch with one another—a densely knit clump of social structure. Moreover, Ego will have a collection of acquaintances, few of who know one another. Each of these acquaintances, however, is likely to have close friends in his own right and therefore to be enmeshed in a closely knit clump of social structure, but one difference from Ego's. The weak tie between Ego and his acquaintance, therefore, becomes not only a trivia acquaintance tie but rather a crucial *bridge* between the two densely knit clumps of close friends...these clumps would not, in fact, be connected to one another at all were it not for the existence of weak ties. (p. 202)

Granovetter (1973, 1983) posits that *strong ties* such as relatives, friends, or neighbors tend to have an inbreeding and isolating social effect, in contrast *weak ties* like acquaintances, collegiality tend to have a *bridging* and integrating function. He suggests that demography, coalition structure, and mobility and with the help of network analysis are special important in developing micro-macro linkage. The concept of macrointegration (Friedkin 1980, as cited in Granovetter, 1983) can explain the crucial function of weak ties in social integration of differentiated populations.

The concept of a *bridge* is significant for social system. Granovetter (1973) elicits that a *bridge* is indispensable since it provides the only route along which information or

influence can flow from any contact of an individual to any contact of another individual of social networks, and, so do the indirectly connected to the individuals consequently. Granovetter (1973) maintains “no strong tie is a bridge” (p. 1364). However, not all weak ties are bridging ties. Granovetter (1973) divides individual’s network into that part made up of strong and nonbridging weak ties, and that of bridging weak ties. He emphasized on the *indirect contacts* that “such ties (*indirect contacts*) are then of importance not only in ego’s manipulation of networks, but also in that they are the channels through which ideas, influences, or information socially distant from ego may reach him” (p. 1370-1371).

How particular ties can bridge among individuals or networks is consistent with the studies of Coser (1975 as cited in Granovetter, 1983) and Tsoukalas (2007). Both worked on cognitive concept of individual’s behavior. Coser (1975) appreciates the elaborated codes of communication rather than restricted ones during the individual is connecting with others in social system since “the elaborated speech results from the ability to put oneself in imagination in the position of each role partner in relation to all others, including oneself” (Granovetter, 1983, p. 204). Coser (1975) relates the development of intellectual flexibility to individual’s network, and asserts that strong ties may prevent individuals from articulating their roles in relation to the complexities of the outside world. Granovetter (1983) maintains that there is the need for cognitive flexibility, and that, “The absence of flexibility may have inhibited organization against urban renewal, since the ability to function in complex voluntary organizations may depend on a habit of mind that permits one to assess the needs, motives, and actions of a great variety of different people simultaneously” (p. 205). Granovetter (1983) emphasizes

that upper-class individuals may suffer a lack of cognitive flexibility due to the cloistered features.

The cognitive view of bridging weak ties is supported by Tsoukalas's (2007) work. Tsoukalas (2007) claims, "Our measures (attempts to influence a social group's performance must, so to speak, be formulated in a 'language' that the group is capable of understanding." (p. 71). Tsoukalas (2007) combines Granovetter's (1981) Network Theory with Whitehouse's (1995) Cognitive Theory of Religiosity to make a claim that different ways of encoding a group's ideology can have differential social effects leading to corresponding differences in group consciousness and group behavior, and how a group's ideology relates to the strength of ties. Likewise Tsoukalas (2007) proposes that for the groups with the existence of *bridging weak ties* will acquire the opportunity for *social mobility*; on the contrary, for the groups which are lack of bridging ties would seem to be harder to approach and penetrate from an outside individual, so it results social inbreeding and would need a *social change* strategy. Drawing on the cognitive view of social ties, faculty may experience both of the group's ideology. It is therefore appropriate to examine how the university implements the reform strategies, and speculate the consequences.

Breiger (1990) connotes the meaning of *social mobility* as "process and individual or social change" and "sociologists of mobility regard the structure (social space) in which mobility occurs as a reality independent of the extent and direction of mobility" (p. 11). Tsoukalas (2007) helps elaborate the concept of *social mobility* as the situation that "individuals wanting to further their personal and social standing may choose to move from a less attractive group to a more attractive one. Such a move, if successful, confers a

more positive social identity.” (p. 64). Breiger (1990) perceives *social mobility* as it could be change in people move and the meaning they attribute to social units. In addition, Breiger (1990) elicits the meaning of *social change* in social networks approach as “numerous individual-level changes in connections nonetheless leave both the macropattern of relationships and the aggregated units intact” (p. 7).

To determine whether relationships in social network are weak ties or strong ties, Granovetter (1973) maintains:

the strength of a tie is a (probably linear) combination of the amount of time, the emotional intensity, the intimacy (mutual confiding), and the reciprocal services which characterize the tie. Each of these is somewhat dependent of the other though the set is obviously highly intracorrelated. (p. 1361)

Strong ties involve larger time commitment, “the more frequently persons interact with one another, the stronger their sentiments of friendship for one another are apt to be” (Homans, 1950, p. 133). However, Major (1999) found that frequency of contacts might not be a good indicator of the strength of a tie since it could be the result of contextual factors such as place of work setting. Time, therefore might be a supportive indicator to the other characteristics of ties.

The emotional intensity deals with the commitment that individuals engage themselves to their groups. Major (1999) claims, “Strong ties have a history and a mutual commitment to the continuation (time) of the relationship. Weak ties, on the other hand, lack these feature and at the extreme are one-shot transactions with low emotional intensity, no history, and no future commitment” (p.26). Tsoukalas (2007) elicits emotional intensity from group’s ideology that tends to remain isolated due to intense

cohesion and emotional revelatory potential leading to the lack of channels for the spread of new ideas. Likewise, individuals who spend their time working together regularly for a long continuation and experience of success or failure together, the relationship is considered to be strong tie.

The intimacy (mutual confiding) of ties deals with the similarity of individuals in a group (Granovetter, 1983). Strong ties would include close relationships between individuals with similar thoughts and backgrounds. Granovetter (1973) describes the situation of strong ties when an individual want his own feeling to be congruent with those of his good friend will result a psychological strain, while weak ties would have less. Major (1999) supports the claim that strong ties would indicate shared knowledge where weak ties would indicate diverse knowledge. The intimacy of ties, therefore, can be gauged from the closeness of relationship like good friends or faculty with the same educational preparation; these relationships are considered strong ties.

The reciprocal services of ties are consistent with the idea of individuals' economic expectation onto groups. Employment insecurity and economic pressure make individuals believe themselves without alternatives (Granovetter, 1983). Major (1999) argues that reciprocity can be defined as the mutual rewards, tangible or non-tangible which individuals receive through interactions. The reciprocity, therefore, can be defined as individuals' expectation on job promotion, or economic related rewarding from their relationship, and the relationships by this definition are strong ties.

The relationships of individuals can be depicted by a *sociogram* (Moreno, 1934 as cited in Major, 1999) in which people are presented as points, or nodes, and interactions are depicted by lines linking those nodes. The use of sociogram is useful in measuring the

interpersonal relations in small groups. Burt (1984) uses sociogram in his study of network data from the General Social Survey to reflect the useful data items for research questions including the strength and content of relationships. In his network figure, he used a thick line to indicate an especially close relationship, a pale line to indicate a relationship of less intensity, and no connecting line to indicate strangers. He asserts that the network data offer insights into the ways in which a respondent's interpersonal environment affects the respondent's abilities, attitudes, and behaviors. Wellman (2007) suggests, "In personal network analysis, scholars are standing in the center of a person's world and analyzing who he or she is connected to and with what consequences" (p. 111). He argues that personal network analysis is used in the study of social support, social capital, and access to knowledge.

Applications of Granovetter's (1973, 1983) Network Theory to this study is two folds. On the one hand, the Network Analysis helps reflect why of the effectiveness and efficiency of University's strategies in facilitating faculty to turnaround their teaching methods and participate the pedagogical progressives in accordance with the National Education Reform. On the other hand, Granovetter's (1973, 1983) concept of *bridging weak ties* assists the explanation of how faculty access to the critical information and influences of pedagogical progressives and undergo social mobility if any possibility. Granovetter (1973) provides a useful tool—strength of ties as the combination of the amount of time together, the emotional intensity, the intimacy, and the reciprocity—to analyze the strength of ties which the study can apply when exploring the relationships of faculty and subsequently articulate the flows of information and influences through their ties.

Summary

Thai higher education is currently in the age of reform after Thailand was badly hit by the great financial crisis in 1998. Education at higher level has been expected by public to help cultivate graduates who are capable to work effectively in the changing world of globalization and to bring Thailand out of the crisis with the hope that Thais will be knowledge-based and learning society. Attempts to reform higher education began shortly after the promulgation of the National Education Act of 1999; they were undertaken by the involving governmental bodies, namely the Nation Education Commission and the Commission on Higher Education. The principle of reform was clearly established to appreciate learner-centered approach as it was believed to enable individuals to think critically, to learn effectively by themselves, and to develop themselves at their pace to their best potential which is required by the Nation. From the literature review, the concept of pedagogy could explain most of the principle of the educational reform. The pedagogical intent is the particular form of teacher and student relationship and necessary for the student's growth which is consistent with the principle of the National Education Act. Pedagogical progressive means pedagogy with learner-centered teaching methodology. However, it is rarely used and seems unfamiliar to educational personnel in the university. Nonetheless, the happening does not affect this study.

The reform is mandated by the Act; policy and strategies to facilitate faculty were implemented, especially the provision of quality teaching. However, teachers or faculty staff seem to perpetuate in their traditional teaching methods. Some explain the situation may be caused by the lack of understanding or unfamiliar with this new teaching

approach. The recent report of the Commission of Higher Education still concerns the low quality of education. Perpetuation Theory (Braddock, 1980; Wells & Crain, 1994) provides a useful foundation for explaining the phenomenon, the importance of social intervention used to break the cycle of long over-due traditional teaching methods. Applications of Granovetter's (1973, 1983) Network Theory to this study helps reflect why of the effectiveness and efficiency of University's strategies in facilitating faculty to participate the pedagogical progressives. Granovetter's (1973, 1983) concept of *bridging weak ties* assists the explanation of how faculty access to the critical information and influences of *pedagogical progressives* and undergo *social mobility* if any possibility.

CHAPTER III

METHODOLOGY

The explanatory case study research method (Yin, 1994, 2003) was used for this study to reveal why and how the University administrators facilitate faculty to pedagogy reforms and to illuminate—through the lens of Perpetuation Theory (Braddock, 1980) and Granovetter’s (1973, 1983) Network Theory—why and how faculty learned and successfully conducted pedagogical progressives under the social circumstance of educational reform. The study design was derived from Yin’s (1994, 2003) explanatory case study since the questions of the study mainly involved how and why of the faculty’s pedagogy reform. “How” and “why” questions are more explanatory and likely to lead to the use of case studies as the preferred research strategies (Yin, 2003). According to Yin (2003), case study research is appreciative when “a ‘how’ or ‘why’ question is being asked about a contemporary set of events over which the investigator has little or no control” (p. 9). The study’s attempt was not only to use the case of PSU for investigating the contemporary why and how faculty learned and improve their pedagogy focusing on the interconnection of macro and micro social structures, but also to describe why social networks were needed to foster pedagogy reform in the real-life context.

Case studies can be based on any mix of quantitative and qualitative evidence according to Yin (2003) and Merriam (1988). However the proposition of this study rather conferred qualitative methods regarding the research questions and the essential data used. The importance of qualitative methods to the study was recognized and engaged for what the purposes of this study could be attained. Likewise Patton (2002) elaborates, “the person in search of the fruit of qualitative methods will know what to look for—and know when the real thing has been attained” (p. 28). Three primary processes suggested by Patton (2002) including “Being-In”, “Being-For”, and “Being-With” supported my insights of the study. Merriam (1998) argues, “Case studies, especially qualitative case studies, are prevalent throughout the field of education” (p. 26). Merriam (1998) describes a *qualitative case study* as an intensive, holistic description and analysis of a bounded phenomenon such as an institution, a person, or a social unit; assuming that meaning is embedded in people’s experiences and that this meaning is mediated through the investigator’s own perception.

Naturalistic inquiry (Merriam, 1998; Patton, 2002) was therefore undertaken for the study. The case study allows generalizing results to theoretical propositions but not to population or universe (Yin, 1994), even though it has a limited generalizability. In so doing, *pattern matching* (Yin, 2003) was the endeavor to link the data to propositions in the way “whereby several pieces of information from the same case may be related to some theoretical propositions” (p. 26). The case study was to deliberate why faculty’s social network was needed to foster the implementation of the University’s strategies leading to the success of pedagogy reform. Critically the study was to describe the

usefulness of the theoretical proposition of the Perpetuation Theory (Braddock, 1980) and Granovetter's (1973, 1983) Network Theory in the implementation.

Setting of the Study

A single-case design with embedded subunits (Yin, 1994, 2003) was engaged in this study. PSU was the case, and four selected faculty staff from different faculties of health sciences were incorporated subunits of analyses.

To define what the case is must be consistent with the unit of analysis and be related to the initial research questions otherwise it will lead to confusion (Yin, 2003). Yin (2003) suggests a strategy to reduce the confusion is to "discuss the potential case with a colleague...what questions you are trying to answer and why you have chosen specific case or cases as a way of answering those questions" (p. 24). Discussing with my advisor, Dr. Adrienne E. Hyle, did help me to get through and made it possible in conducting the study avoiding trouble of too vague or too numerous. PSU was selected site of study because it could well represent the rest of public universities in Thailand for the implementation of the National Education Reform scheme. PSU is public university well established in educational service for Thai population of the southern part. The other reason why PSU was appropriate to be a bounded case for the study was the national administrative tradition for the public universities. The government is the main sponsor for any public university's operating budget. Likewise the implementation of the National Education Reform, the policy and plans was contained in the eighth National Educational Plan 1997-2001 (Division of Planning, 1997) and was derived by top management persons of a university to implement on the university as a whole (Division of Planning, 2003).

According to the administrative structure of PSU, there were 25 faculties in the university scattering in five campuses. These faculties were grouped into nine groups according to the academic area to ease the curricula and taught program administration, such as group of health sciences faculties and so on (OQA, 2008). Health sciences faculties—the combination of the Faculty of Dentistry, Medical Sciences, Nursing, and Pharmaceutical Sciences—were the prominent academic area of Hat-Yai Campus. At Hat-Yai Campus, there were diversity of academic groups including managerial sciences and liberal arts, however the Faculty of Education was located at Pattani Campus about one hour drive from Hat-Yai Campus. The case study was about the social network of faculty at PSU. I presumed that every faculty worked under the same organizational administrative environment. They were freely able to access the provision of pedagogy development from the University.

Researcher

Patton (2002) emphasizes the direct and close contact of the researcher to the phenomenon under study as “the researcher’s personal experiences and insights are important part of the inquiry and critical to understanding the phenomenon” (p. 40). Regarding my position in the higher level of university management, I have a good opportunity to access the policy making arena and useful information about educational reform strategies. My experience as a health professional, an administrator, and an educator help me to interrelate data contributing to the phenomenon of pedagogy reform. My dual roles as professional and administrator help me gain insight into the influence of administrative aspects on the effectiveness and efficiency of working processes, and

organizational changes. Particularly, my position and my roles provided me a chance to be an astute and dedicated insider.

During studying at Oklahoma State University, I was trained to do research by qualitative strategy, including interpretive research paradigm, naturalistic inquiry, and field work training to collect qualitative data by various methods—interviewing, observing, and collecting physical artifacts. I have earned experiences to increase my subjectivity and how to deal with biases through my coursework—writing narratives and self-reflection. Merriam (1988) posits, “In a qualitative study the investigator is the primary instrument for gathering and analyzing data” (p. 20), however, the investigator is limited by being human—that is personal biases interfere. I was cautious and must continue to cast the data against the literature and not base my interpretation upon my perspectives, preferences, and assumptions. My administrative role did not influence the participants’ contributions to this study, instead helped me to access the time of participants, and the chance to join the University’s administrative meeting.

Participants

To obtain data concerning the attempts of the University to reform faculty’s pedagogy in accordance with the National Education Reform scheme, the University’s administrators highly involving in academic affair were interviewed including the Vice President and Assistant President. In addition, the case study was conducted by purposively selecting faculty to examine how and why social networks involve the progression of their pedagogy. Four teachers were selected from the different faculties of health sciences depending on their reputation for outstanding teaching practice during the current decade, and they should teach by learner-centered methodology.

The selection process began by reviewing the list of exemplary teachers from the university annual reports (PSU, 1997, 2008). Three faculty selected, except one faculty from the Faculty of D, were exemplary teachers recognized by PSU for their good work. The participant from the Faculty of D was recruited after visiting the Dean and I was introduced to an administrator who was interested in learner-centered pedagogy, and was informed teaching by pedagogical progressive called competency-based approach. I then decided to invite the Associate Dean to be the participant. Visiting all the participants was needed to explain about the study and to ask for participation and consent. None of the faculty denied the participation or disconnected.

Attempts were made to obtain data that, on one hand, were descriptive of the relationship between the respondents and their social networks. On the other hand, the data needed were the characteristics of the respondent's current pedagogy belief, most progressive pedagogy they learned and used, and the situation when the change in their pedagogy might happen.

Data Collection Strategies

All types of qualitative research are based on the philosophical assumption that reality is constructed by individuals interacting with their social worlds (Merriam, 1998). Merriam (1988) maintains “naturalistic inquiry, which focuses on meaning in context, requires a data collection instrument sensitive to underlying meaning when gathering and interpreting data” (p. 3). Naturalistic inquiry, according to Patton (2002), is “studying real-world situations as they unfold naturally; nonmanipulative and noncontrolling; openness to whatever emerges (lack of predetermined constraints on finding)” (p. 40). This method follows the process of observing, recording, analyzing, reflecting,

dialoguing, and rethinking, and methods suggested for collecting data of humans are those made of human sensibilities such as interviewing, observing, and analyzing (Merriam, 1988, 1998).

In terms of obtaining social network data, Network Analysis is based upon an assumption of the importance of relationships among interacting units (Wasserman & Faust, 1994). *Egocentric network* (Granovetter, 1973) or personal network (Wellman, 2007) method was undertaken for this study. Wellman (2007) elaborates, “In personal network analysis, scholars are standing in the center of a person’s world and analyzing who he or she connected to and with what consequences” (p. 111), and that why the people at the centers of these networks are often called *egos*, with their relationships called *alters*. Participants in this study were asked about their teaching relations and from whom they got the message of pedagogical progressives without any boundary. I presumed that faculty normally could have accessed teaching information with persons from elsewhere not only in the University. There were asked to generate the names of persons who gave information that supported their teaching including administrators. Then I followed my questions about the characteristics their *alters* and their relationships. Selective *alters* were asked in order to trace back the information of pedagogical progressives but with the limit of time and possibilities. Wellman (2007) explains why we use egocentric network, “Personal network analysts tradeoff the comprehensive of whole network analysis for a relative lack of boundedness in the networks they can study” (p. 111).

To protect anonymity and confidentiality, pseudonyms were assigned to each participant and alter. Using sets of alphabets instead of their names: D, and D1, D2,

D3,...for the participant and alters from the Faculty of D, M, and M1, M2, M3,..., N, and N1, N2, N3,..., and P, and P1, P2, P3,... for the Faculty of M, N, and P consecutively; and A1, A2 stood for the University's administrators.

According to Yin (1994), a case study protocol is needed to increase the reliability of the study and a set of substantive questions reflecting the actual inquiry is the heart of the protocol. Yin adds that the questions are posed to the investigator, not to a respondent, and "the main purpose of these questions is to keep the investigator on track as data collection proceeds." (p. 69).

The Protocol Questions and Sources of Data. The protocol questions were created to cover the major purpose of the study, and were arranged into three groups of questions:

1. How do PSU's administrators organize to facilitate pedagogy reform?
accompanied with the questions
 - what is the policy for pedagogy development?
 - how do administrators perceive progressive pedagogy? and
 - what are the programs or measures set up for implementation at all levels?Sources of data: administrative documents such as meeting minutes, program evaluation report, quality assurance and self-assessment report, newspaper clippings; interviews with administrators and head of departments
2. How do faculty learn progressive pedagogy? accompanied by the questions
 - what are the progressive pedagogies they engage?
 - what are their beliefs underlying their pedagogy?
 - why do they change?

Sources of data: faculty's documents—course syllabi, performance assessment records, curriculum vitae, certificates and awards; interviews; class observations,

3. What are faculty's social networks and attributes? accompanied by the questions

- what is faculty's demography? and
- what is the formal communication structure of the university?

Sources of data: documents—organizational charts; interviews with faculties and their networks.

In this study, three of six data collection strategies (Yin, 1994) were employed: documentation, interviews, and direct observations.

Documentation

Searching and collecting the University's documentation concerning the strategies for pedagogy reforms or development, and faculty's pedagogy was one of the data collection strategies. Administrative documents, agendas and minutes of meetings, written reports and others were considered and evidenced. Yin (1994) asserts, "The most important use of documents is to corroborate and augment evidence from other sources reflects" (p.81).

Several pieces of evidence from documentation were helpful not only to address the initiation of learner-centered pedagogy in the University—how and who the events had been committed—which gave a useful clue to investigate more, but also to corroborate evidence from interviews. Document of related regulations, annual reports of the faculties and the university were available and in a good order for retrieval. Personal

documents—students’ reflections or reports concerning faculty’s teaching—were found as a useful evidence for what faculty had done in their daily teaching. Merriam (1998) supports the use of personal documents as they reveal inner meaning of daily events without the interference of research.

Direct Observation

Direct observations of participants’ teaching in classrooms were used to gain insights into their pedagogical progressives learned to do so. Yin (1994) said that observations add new dimensions for understanding either the context or the phenomenon being studied, and photographs taking are suggested. A list of activities and classroom environment for pedagogical process was used to observe during the class. Regarding how to categorize instructional patterns of individual teachers, Cuban (1993) suggests useful indicators for classroom observation including:

1. Arrangement of classroom furniture;
2. The ratio of teacher talk to student talk;
3. Whether most instruction occurs individually, in small groups, or with the entire class;
4. The presence or absence of learning or interest centers that are used by students as part of their instruction;
5. The degree of physical movement students are allowed without asking the teacher; and
6. The degree of reliance upon texts and use of varied instructional materials. (p. 9)

The data collection rubric used to document classroom observations is attached as Appendix B. Cuban (1997) also suggests observable measures of learner-centered including:

1. Student talk about learning tasks is at least equal to, if not greater than, teacher talk;
2. Most instruction occurs individually, in small groups (2 to 6 students), or in moderate-sized groups (7-10) rather being directed at the entire class;
3. Students help choose and organize the contents to be learned;
4. Teachers permit students to determine, partially or wholly rules of behavior, classroom rewards and penalties, and how they are to be enforced;
5. Varied instructional materials (e.g., activities centers, learning stations, interest centers) are available in the classroom so that students can use them independently or in small groups;
6. Use of these materials is scheduled, either by the teacher or in consultation with students, for at least half of the academic time available, and
7. The classroom is usually arranged in a manner that permits students to work together or separately, in small groups or in individual work spaces; no dominant pattern in arranging classroom furniture exists, and desks, tables, and chairs are realigned frequently.

Interview

Interviews of these participants were undertaken according to the question protocol. Interviews of the administrators were undertaken to acquire comprehensive data of administrative roles and relationships with faculty in performing the pedagogy reform.

From the interview transcripts, I assessed and evaluated data collected, redirected, probed, and reviewed the line as recommended by Lincoln and Guba (1985). Questions for interviews of the participants and administrators are in the Appendix C, and Appendix D.

According to Lincoln and Guba (1985), interviews allow interviewers to understand and put into a larger context the interpersonal, social, and cultural aspects of the environment. Open-ended questions, in which key respondents are asked for the facts of a matter, opinions about events, and in some situations to propose his or her insights into certain occurrences, is suggested for interviewing (Yin, 1994). The tactics of corroborating certain facts in a conspiratorial way, probing, and deliberating checking the sequence of events with persons known to hold different perspectives (Yin, 1994) were used. Regarding the differences of each participant in their nature of expertise and faculty circumstance, the informal conversational method (Patton, 2002) of interviewing provided were used for flexibility to probe for the depth of information. However, interview questions as Appendix C were designed as a guide to gain insight toward the proposed data needed according to the protocol questions.

To obtain network data standardized questions was preferable to ensure information for network analysis according to Granovetter's (1973, 1983) Network Analysis. The first question was to ask participants to elicit the names of persons with whom the participant discussed teaching matters. The second question was to elicit the names of alters especially close to the participants. The third question was to ask contact frequency and the length of acquaintance. The forth was find out the educational

preparation of alters. The last question participants were asked whether the relationships were caused of expected rewarding.

Through the processes of data collection, follow-up interviews with participants were needed to gain more insight about their social relationships, the ways they learned the pedagogy, from which channels, and their beliefs. Follow-up interview was conducted to clarify any comments I did not understand once I reviewed the transcripts. Interviews with selective alters, individuals identified by participants as important connections in their pedagogy reform process, were also needed to illuminate social networks, and provide greater insights and clarification of ties.

Data Analysis

Yin (1994) asserts two general analytical strategies, “one relying on theoretical propositions and the other beginning with a descriptive approach to the case” (p. 103), and using them as a part of specific analytical techniques. In this study the specific technique: pattern-matching logic (Yin, 1994) was used to analyze the findings. Comparing the pattern of events found in this study with the predicted ones was conducted. According to the theoretical frame of this study, it is the sociological process which affects and changes individual’s social structure or networks. This process breaks the cycle of social inertia of faculty’s lives leading to pedagogy reform. In this manner, analytical generalization (Yin, 1994), the generalization of the findings to the theoretical propositions, could occur.

Manipulations of data were undertaken as suggested by Yin (2003): creating flowcharts of how the administrators communicated with faculty in facilitating pedagogy reform, sequencing the development of teaching in the faculties in chronological order,

and categorizing the evidence. These conducts would ease the creation of variable patterns for data analysis.

The theoretical proposition describing patterns of faculty's social networks in this study was based on Granovetter's Strength of Weak Ties Theory. Sociograms indicating the weak and strong ties between the respondent, and direct and indirect connections with alter (Granovetter, 1973) were used to describe the social networks present within each faculty. The solid line indicates strong ties; the broken line indicates weak ties. Data analysis sought to provide information on Granovetter's (1973) four characteristics regarding ties that contain in each participant: 1) amount of time; 2) emotional intensity; 3) intimacy; 4) reciprocal services.

Research Criteria

Concepts that have been offered for qualitative research to be considered trustworthy include credibility, confirmability, transferability, and dependability (Erlandson, Harris, Skipper, & Allen, 1993). Likewise Lincoln and Guba (1985) emphasized that trustworthiness criteria must be appropriate according to the research paradigm, and they suggested the mentioned four operationalized criteria to deal with the naturalistic paradigm.

Credibility

Credibility refers to the relationship between the constructed realities generated by the respondents and the interpretation and transmittance of those realities by the researcher (Lincoln & Guba, 1985). To obtain credibility of the research data, I used the strategies proposed by Lincoln and Guba (1985): triangulation, peer debriefing, and member checks.

Triangulation is the strategy which provides opportunity to the researcher to check data across different points of view. Erlandson et al. (1993) point out that triangulation is the best way to elicit the various and divergent constructions of reality that exist within the context of a study. In this study I collected data with three methods, namely documentation, interview, and direct observations.

Peer debriefing (Erlandson et al., 1993) allows an outside professional to analyze the study and provide feedback about the findings and conclusions. In this manner challenge, refine, and redirect the process of study were undertaken as necessary. In my study, my advisor, served as this professional.

Member checks (Erlandson et al., 1993) provide opportunity for respondents to test the data report, interpretations, and conclusions of the inquiry. Data obtained and data interpretations in this study were verified by those people serving as data sources; data which could not be verified through member checks were excluded.

Transferability

Transferability refers to the degree to which a study's findings can be applied in the other situations or with other respondents (Lincoln & Guba, 1985). Thick description and purposive sampling (Erlandson, et al., 1993) are the strategies to facilitate transferability. Data were presented with enough detail to allow readers to gain sufficient information about context, participants, and methodology, and to know how to apply to other situations or similar groups. The purposive sampling was undertaken to meet the purpose of this study. The pattern-matching (Yin, 1994) tactic was used for analytical generalization of the findings to expand and generalize the theory. Through pattern-

matching, findings were expanded and generalized to the theoretical propositions. The findings may or may not support the proposition theories.

Dependability

Dependability refers to the reliability and trackability of the research process (Lincoln & Guba, 1985). Yin (1984) suggests a case study protocol to help facilitate the reliability of the research. The protocol questions which are the heart of the case study protocol were established by the researcher, then reviewed and approved by my advisor. Each question is accompanied by a list of probable sources of evidence. Trackability required is embraced by explainable changes (Erlandson et al., 1993). An audit trail—case study documents, interview notes, and investigator’s daily journal, and others relating to critical incidents—was kept for external check.

Confirmability

Confirmability is the degree to which the results are the product of the focus of inquiry and not the biases of the researcher. “The naturalistic researcher does not attempt to ensure the observations are free from contamination by the researcher but rather to trust in the ‘confirmability’ of the data themselves” (Erlandson et al., 1993, p.34). Again, the audit trail provided documentation of interview transcripts, tapes, notes, analysis, and other documents to enable external reviewers to determine if the conclusions, interpretations, and recommendations can be traced to their sources and if they are supported by the inquiry.

Summary

The explanatory case study research method (Yin, 1994) was undertaken in a university setting, and naturalistic inquiry was engaged as the study approach. The design

of the study was a single case with embedded subunits. The University was the case and four faculty staff—selected from different faculties in health sciences—represented the embedded subunits. The criteria for recruiting the participants included their outstanding teaching practice in learner-centered approach. Data collection strategy included documentation, direct observation, and personal interview. The case study protocol had been created before implementing data collection as suggested by Yin (1994). The pattern matching strategy (Yin, 1994, 2003) was used in data analysis, and theoretical patterns engaged were derived from Network Analysis (Granovetter, 1973, 1983) and Perpetuation Theory (Braddock, 1980; Wells & Crain, 1994). The study was conducted in the manner to comply with the research criteria according to attain the trustworthy.

CHAPTER IV

DATA PRESENTATION

Through the lenses of Granovetter's (1973, 1983) Network Analysis and Perpetuation Theory (Braddock, 1980; Wells & Crain, 1994), the purpose of this study is to examine the relationships developed among faculty at PSU in implementing the new and required pedagogy reform strategies. The presentation of data is arranged in three consecutive parts from the macrosocial of education reform to the microsocial of faculties and their networks, and the macro-micro connections.

How PSU Adapts to the National Education Reform

Many believed that education could enhance individual development and contributed to social and economic development which would enable Thailand to move through the crisis (ONEC, 1998). The National Educational Development Plan from 1960 – 2001 was formulated to facilitate the country's development process in the changing global economics, and enhance global competitiveness. Evidence for linkages between the national education reform mainstream and PSU were extracted from the university's educational plans from the year 1987 till 2006, the annual reports of quality assurance from 2001 to 2005, and the annual reports of PSU. Interviews with the university's administrators were also undertaken to understand more insightful and to corroborate the context of the evidences.

Early Stage of Education Reform

In the early stage of planning during 1987 - 1991, PSU did not mention any developing pedagogy but only the attempt to increase the number of graduates produced to meet the national demand for manpower. It was interesting to find that learning sciences were first adopted in the seventh national educational plan of 1992 – 1996: critical thinking had been first mentioned five years before the promulgation of the National Education Act. At that time, training teaching skills was determined in the university's plan and supposed to develop faculty to learn how to teach.

The learner-centered approach for Thai education was stipulated in the eighth National Educational Development Plan 1997 – 2001 (Division of Planning PSU, 1997) as the main theme for national educational development direction. As for PSU, there was no learner-centered approach in the initial educational development plan for the same time frame. The university had to revise the plan and adjusted the educational administration to comply with the National Educational Act in 1999 (Division of Planning PSU, 2002). That was the beginning of PSU's adaptation to the new educational regulations. According to the Act, there was an obligatory time frame of three years for universities to get ready of their administration and management, and there would be the first external evaluation from ONESQA by the year 2005. There is a package of key performance indicators derived from the quality requirements of the Office of National Education Standards and Quality Assessment (Public Organization) which PSU has to comply in order to maintain a quality university status. Changes urgently needed for PSU appeared to intensify of university quality assurance program and to establish strategic management (2002). The key message quoted from the National Education Reform was

student-centered, life-long learning, and learning how to learn. “Before I assumed my role in this position, there were workshops to signal teachers that they had to make some changes in their teaching approach and only lecturing was not enough” recalled Dr Aranya Chaowalit (personal communication, June 11, 2008), the Vice President for Academic Affairs.

Most of the activities undertaken by PSU to anticipate the new environment of the education reform aligned in the aspect of learning and incorporating the guideline and regulations. Preparing for the external evaluation by ONESQA was the priority mission since the overall activities confined in the quality criteria used for the evaluation.

PSU's Policy and Strategies for Pedagogy Reform

In 2000, PSU adopted strategic planning process to formulate the University's direction and strategies. Pertaining to the analysis of the University's external and internal environment including the situational demography and the influences of global economics and the National Education Act of 1999, the university decided to reposition the focus of development from a teaching-oriented to a research-oriented university (OQA, 2004). The strategy for becoming a research-oriented university aimed at strengthening both research capability and postgraduate programs. The university gave a strong signal of their research-oriented vision and goals to all faculty. The strategic principle was subjected to be an excellent and competitive university through its strength in potential areas. The research capability was convinced as the key to succeed while educational development for undergraduates was perceived as a defensive strategy (Division of Planning, 2003). The meaning of defensive strategy was that the University

would keep the direction to comply with the national objectives and principles for education and the State administrative guidelines and criteria (2003).

To ease the presentation, I will present PSU's current strategies which aims to change faculty's pedagogy as follows:

1. curriculum redesign,
2. training and retraining faculty how to teach on a continuing basis,
3. facilitating faculty with physical facilities and educational technologies, and
4. ensuring collaboration among faculty.

Curriculum redesign. Faculty were encouraged to redesign curriculum objectives into learner-centered oriented, and to engage various models of teaching. A number of self-studying hours were needed in every course, and student's out-of-classroom projects were appreciative. The University would monitor the improvement of the overall outlook through the Self Assessment Report (SAR) of the faculties and teaching evaluation reports. There were a list of teaching methods which were presumed by the University as learner-centered approach (OQA, 2006, 2008a; PSU, 2002) namely CAI, PBL, online teaching, laboratory teaching, self study assignment and apprenticeship. Courses which were reported using any of these teaching methods would be counted. Teaching evaluation was done by students in corresponding classes.

Training and retraining faculty how to teach on a continuing basis. Faculty staff development programs were created to increase the capabilities of faculty in teaching by learner-centered pedagogy. There were a number of short courses including workshops for teaching in higher education, basics of teaching, and selected active-learning teaching models especially problem-based-learning. These activities were different from the

structural adaptations in the educational system, and might not be easy to tackle. The attempt to make a change for faculty was somehow undermined by disappointed attention of faculty and a lack of experts. “Faculties are not confident that their teachers will surely attend the project, they sends no teachers at all to attend it” admitted the Vice President. “It may be because difficulty in getting speakers to come here and during a semester only a few teachers can participate and so we cannot arrange it.”

Facilitating faculty with physical facilities and educational technologies. A number of self-study units were established both at the University and Faculty level. The Incubation Unit was designed for facilitating real situation learning. The Learning Resource Center was expected to support university-wide literature searching. There were self-study units or learning resource centers in nearly every faculty of the university.

Educational technologies utilization by faculty member was promoted, and funding support for producing electronic educational media and distance learning was disseminated. Virtual classrooms and computer assisted instruction was crested. There were more facilities acquired to support the mission, namely wireless accessible areas to facilitate self studying.

Ensuring collaboration among faculty. PSU was able to implement comprehensive quality assurance for education in 2002 after the attempt to prepare the system since 2000 (OQA, 2002, 2004). There was a first formal quality audit from the external official auditor in 2003. Dr. Wullop Santipracha, the former Vice President for Academic Affair (personal communication, December 13, 2008), stated that at the beginning of the National Education Reform PSU had mainly used the quality circle

Plan-Do-Check-Act-Participation (PDCA-Par) to educate faculty about learner-centered principle and how to comply with the requirement. It was the University's intention to promote faculty participation in driving the overall educational quality, and consequently the education reform. The standard criteria relating to learning-teaching reform are learner-centered cognizant process, learning provision, and faculty's pedagogy development. PSU integrated the quality assurance process into the university administration to strengthen the directional development and faculty's participation.

Load units (LU) and key performance indicators (KPI) are assigned to every department and faculty staff (OQA, 2008). In this case faculty's departments are defined as an academic production unit (OQA, 2004, 2008). Budget and promotion will be rewarded to the individual who can conform to the commitment (Division of Planning, 2003). According to the Division of Planning (2003), management by objective would be used to anticipate the operation under the circumstances with contingency and complexity.

Recently, there has been an innovative strategy of networking from the administrators directly to faculty. According to the Vice President, this is the attempt to build a critical mass of interested faculty in particular aspects to help the university to drive the education reform. She proposed, "It is impossible for the university to drive the whole system with every detail. Each Faculty is needed to be part of the main mechanism to drive the education units forward." She planned to share with faculty community. "When we have enough customers, we will invite speakers to train them. Then we should get more people joining and after that we can hold a Best Practice Contest" said the Vice President. However, the focus of the university was on e-learning.

The university aimed to urge faculty to create more and more on-line courses to fulfill the committed key performance indicator (KPI).

In the overall picture, the University succeeded in urging faculty departments to add an amount of self-learning activities into their course syllabi, and courses using electronic media (OQA, 2002, 2003, 2006, 2008a). There were learner-centered courses such as PBL, self-study assignment, or computer-assisted instruction in every program. However, all the numbers reported were simply counted which might not be able to explain the whole picture of the University's performance for this aspect. The Vice President revealed,

There is a KPI—key performance indicators—that specifies the number of times their students access the lessons which reflects how much students do self-study. Virtual classroom and CAI are also required KPIs. We do not specify the number of topics but it is up to the Faculties to decide the number of courses that they want to commit to. However, that number should not be too low. One weak point is that the commitment goes by the number of courses not percentage. So we cannot see them in proportion but we will change it to percentage.

The only indicator to reflect how well faculty taught was the evidence from the students' satisfaction survey at the end of course. More information may be needed to describe how well faculty can teach by learner-centered methodology, and how many teachers who are skillful in this aspect.

Future of Pedagogy

There were three important messages concerning the University's pedagogy released from the top administrators in 2008 and 2009:

1. “Being a research university must not make faculty neglect their teaching and their students; but must be in the way that the stronger the research maneuver is, the more enjoyable and academic the learning of students shall be.” suggested the Evaluation Committees on the President (Siribumrungsukha 2008a, n.p.), and
2. the policy for provision of students’ active learning will be stipulated and promulgated, and there will be action plans including an official unit formation to support the pedagogy development. (Siribumrungsukha, 2008b).
3. the declaration of teaching and learning development as University’s priority (Siribumrungsukha, 2009). The President gave the declaration to the public as he wanted to signal the urgent need of the University in teaching and learning development.

The messages reflected the intention of top administrators to improve pedagogy for the University. The future of better teaching and learning for students was brightened up, and the direction was clearly learner-centered pedagogy.

To change how faculty teach from the traditional content transferring to learner-centered pedagogy is undeniable for the education reform. The term *pedagogy* first emerged on PSU’s administrative terrain in a seminar of the Meeting of Deans titled “Present Future Teaching and Learning of PSU” in May 2008 (Siribumrungsukha, 2008). In the seminar, pedagogy was addressed as a teaching approach. There was a consensus mission in the seminar to put effort to change the university’s teaching methods, and to draw a policy statement for developing the learner-centered pedagogy. Since then, the

term pedagogy has been used in PSU top executive administrators dialogue when discussing teaching methods.

Subsequently, the President cheered up the outcome of the seminar, “To undertake a crucial task, to bear a shared inspiration or what we called *shared vision* in the Learning Organization Language is most important. The outcome of this seminar will certainly flourish learning and teaching of PSU.” (Siribumrungsukha, 2008b, n.p.). The President emphasized that he would put a big effort to reform teaching and learning processes in the near future. He proposed to make it possible for the learner-centered pedagogy to be implemented across the university.

University’s Communication Structure for Pedagogy Reform

From the beginning when the National Education Act first promulgated, PSU has gradually implemented necessary strategies and measures to foster education reform. The message of educational reform started from the top executives of the University when the learner-centered ideology was legislative in 1999. Some years later, educational standards and quality assurance were used to monitor and to ensure that universities would undertake the learner-centered approach properly. Management by objective, short course training, physical facilitation, networking, and knowledge sharing were equipped to promote faculty to incorporate in the said mission. Quality assurance and management by objective can be perceived as formal communication between the University and faculty, while networking is the informal link added to increase the efficiency of information delivery.

The communication of the pedagogy reform from the administrators to faculty was traced through organizational and operating structure, university documents and information from administrator interviews.

Channels of Communication

Policies and regulations concerning the National Education Reform were stipulated by top-level administrators and executive committees (Division of Planning, 1997, 2003). The Vice President for Academic Affairs, and the Deans became intermediaries of communication channels between the policy makers and faculty as they are members of the Meeting of Deans and are assigned by the President to represent his authority in administration and the educational reform policy implementation to their settings (PSU, 2006, September; Siribumrungsukha, 2008b). The Office of Quality Assurance of PSU was established in 2001 by the Resolution of the University Council on February 4, 2006 (OQA, 2006, see also <http://www.qa.psu.ac.th/history.html>) to function in coordinating roles between the national units and the internal settings in implementing quality assurance system into the University operation.

According to the Vice President for Academic Affairs (personal communication, June 11, 2008) PSU used multiple channels of communication to deliver learner-centered pedagogical concept to faculty. The Vice President for Academic Affairs was responsible for regulating curriculum design and promoting the learning process and pedagogy development. She explained how the University facilitated faculty to change their teaching toward learner-centered approach as the following:

There are two administrative committees namely Academic Committee, the Sub-Committee on Teaching and Learning Development working in concert to keep

faculty members alert to go on improving their pedagogy. The Academic Committees were directly responsible for managing study rules and regulations, curriculum management in which they consider whether each curriculum proposed is in accordance with the National Education Act. Each course is to be taught according to the policy which emphasizes learner participation and self-study. There are academic advisors who are appointed from faculties to work with teachers and help them to improve their courses. Moreover, the Division of Academic Service performs academic monitoring function, and gives feedback to faculties from time to time about their curriculum revision to comply with the Commission of Higher Education. It assists faculty to get information for continuing education funding and educational policy as well. The Sub-Committee on Teaching and Learning Development focuses on activities related to the basics of teaching, research, psychology for teaching, orientations for new teachers, and translating ideas into activities. Practically, the Division of Personnel operates training programs for pedagogical development. Novice teachers are obligated to take basics of teaching course. There were other courses for learner-centered pedagogy which are available for every teacher who needs to update teaching methods.

Figure 1 summarizes this strategy.

Besides the formal communication, the University renders informal networking to reach other faculty and increase supports. “We will look for key persons from each Faculty because we think that these key persons will have fun with changing their teaching approach and invite people to join them,” said the Assistant President for

Learning Resources. This is the situation when the University attempts to create a community for sharing knowledge and experience of teaching.

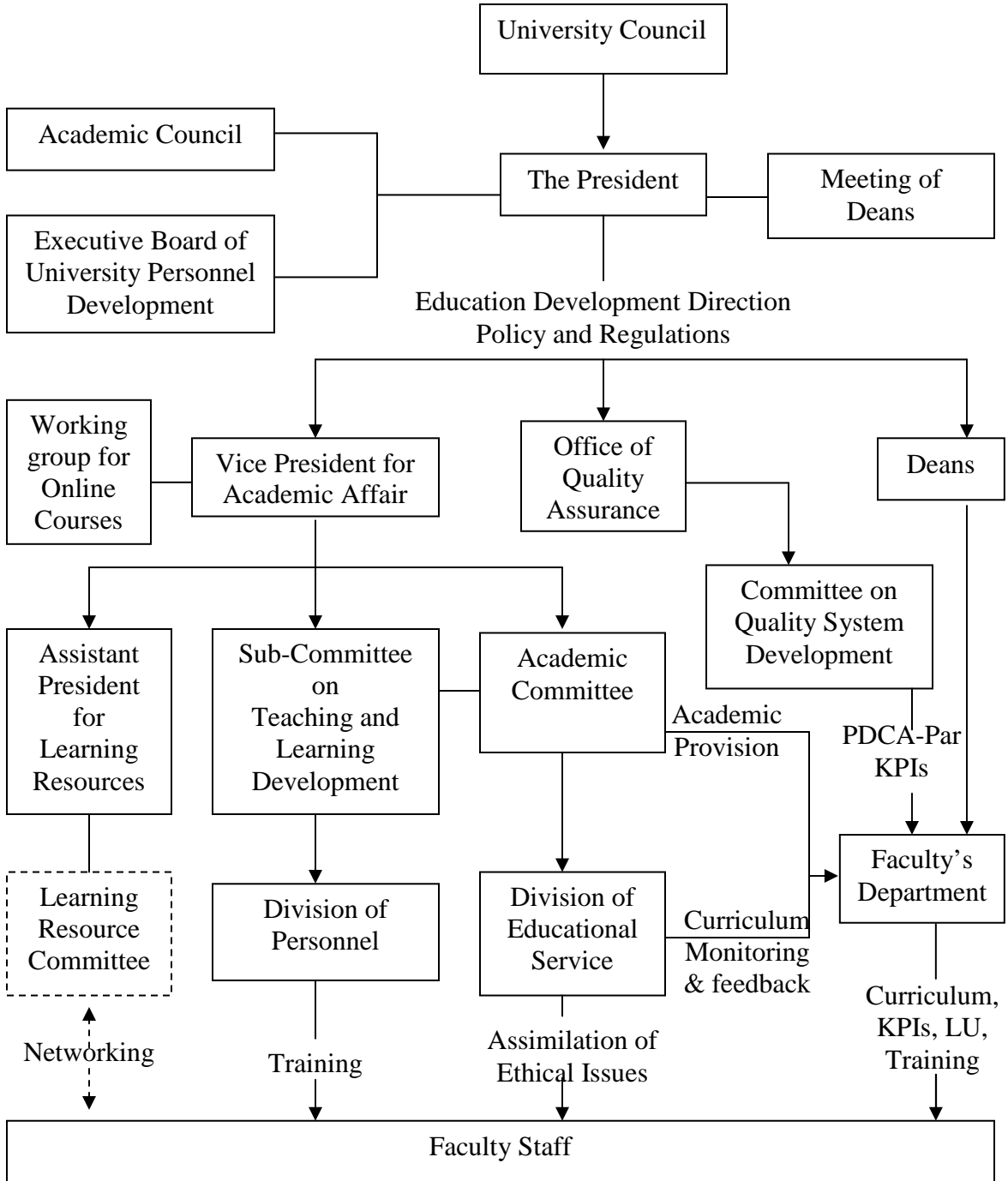


Figure 1. PSU's communication structure for pedagogical development provision

From this informal communication, there is an opportunity to create a team of interested area and e-learning team is a good example of success. According to the Vice President, the university will go to Faculties, but not every Faculty, to ask what and how they want the university to support them. They can choose teachers who are interested in VCR to become the mainstay of their Faculty's VCR group and they meet with the e-learning center team of the university. The Office of Quality Assurance was responsible for developing quality guidelines and coordinating with the State quality auditors for the University's quality system. Quality assurance policy became the language of control for the whole university. There were key performance indicators to ensure the compliance of each faculty in learner-centered pedagogy. Each Faculty had to commit and specify the number of courses to be taught this way and it needed to be on the syllabus to be assessed by outside organizations such as the Commission on Higher Education, the Office of National Education Standards and Quality Assessment (Public Organization). For individual teacher, the load unit system was ready to ensure his/her teaching performance. The Committee on Quality Assurance System implements the quality policy and regulation onto faculty's administrators, and subsequently every teacher in the faculty. The PDCA-Par quality cycle had been used to educate faculties and teachers how to improve teaching quality and how to comply with the quality indicators. Finally the Deans, who were the top executives of the Faculties, played very important role of leaders as they represented the authority of the President to implement the University's policy and strategies (PSU, 2006, September). They were responsible for the overall operation in the Faculties, gearing the direction of development, and coordinating with the University and faculty staff. They represented faculty staff to sign contracts for

administration including education reform (Division of Personnel Prince of Songkla University, 2003, November 10).

Barriers

Data from the interviews and documentation revealed some barriers that prevent faculties from fulfilling the University's educational reform policy.

The limitation of budget to support learner-centered approach. Investing in physical renovations by the University such as classroom, audiovisual instruments, or laboratory equipment which were necessary for learner-centered pedagogy had been delayed for years due to limited budgets (OQA, 2004, 2005, 2006, 2007). There were not enough teachers in comparison with the growing number of students in some Faculties which would undermine the learner-centered activities. Teachers were either loaded with teaching hours or limited in overseeing their students due to a big amount of students in one class (OQA, 2007).

Faculty's growth in their career. The policy of a research-oriented university kept teachers working on their research to get faster promotion in their career ladder. Dr. Wullop (personal communication, December 13, 2008), the Vice President for Academic Affairs at that time, agreed that the policy had affected faculty's enthusiasm to put effort on teaching especially at the beginning of the plan. For example, M1 said "I think my Faculty has lost a good administrator for academic affairs because she believes that there is a better future in doing research." Faculty M and Faculty D also accepted that the policy affected faculty in deciding to join in teaching development as most of faculty could see more benefits to do research than putting effort on improving their teaching. Faculty M said, "Medical education is not yet seen as important by administrators; it

cannot be used in applying for an academic title; we do research (in this area) but it cannot be used...so people do it (joining “___” Education) because they love to do it.” Faculty D insisted that teaching was much less attractive in terms of benefit compared with doing research.

University’s strategies in doubt. Faculty D said, “The University policy in facilitating teaching development is like a square—a rigid curriculum frame for the whole university, while mine is dynamic like a circle. I need flexibility in curriculum arrangement. I think that the measures are an obstacle rather than a support.” Faculty D did not agree with the University principle of quality assurance in using KPI to drive the educational reform, “The University does not understand learner-centered concept; using CAI, PBL, learning by virtual classroom, or others as the KPIs of learner-centered practice has led faculty to a wrong way.” Faculty N said, “I don’t think some KPIs like CAI, laboratory hours, learning by virtual classroom would reflect learner-centered approach of faculty who teach that courses.”

No connection. Faculty P said, “I don’t have any connection to the idea of learner-centered approach from the University’s administrators including administrators at the faculty level. The last time that I had dialogued with the University’s administrators about teaching policy was about eight years ago when I was the Associate Dean for Academic Affairs.” Faculty N revealed her situation in connection with the administrators, “I would like to say that we don’t have any conversation about policy of learner-centered in university. I have friends who are university administrators—but I—in my memory—have never received any suggestion for teaching by learner-centered approach.” Faculty M had a different experience as he was in the University’s task group

for developing e-learning. He had a good relationship with A2 in creating e-learning courses for the University. As for Faculty D, she admitted that there was no message of supporting the teaching development from the University.

Faculty's Pedagogy Reform

To describe how faculty teach, I managed to undertake direct observations in the classes while faculty were teaching. The purpose of the direct observation was to increase my insight of what was happening concerning how the faculty taught in the real situation, and to discover what might “routinely escape awareness among the people in the setting” (Patton, 2002, p. 262). During each observation I took notes of remarkable conversation content and subtle factors happening in the class and took pictures as permitted. Using the classroom observation checklist in the Appendix B as a guide helped me to cover the obligatory aspects of the learner-centered ideology. In addition, I probed for relating information by interviewing with the faculty after the classes. My experience in health science profession and teaching higher education for many years has gave me an *insider or emic* perspective (Patton, 2002) while I observed the classes. However, Patton (2002) suggests enables one “to become capable of understanding the setting as an insider while describing it to and for outsider” (p. 268).

The classes for observation were selected by taking short conversation with the faculty after the faculty agreed to be the study's participants. All of the faculty understood the concept of learner-centered teaching and offered their classes to be observed. The appointments for class observation were set up one or two weeks in advance. The class observations were conducted during the school time and I was permitted to observe more than one class for each participant as needed to enrich the data.

Physical Setting and Participants of the Classes

The physical environment including setting and facilitating components was intended to observe and record. The number of students was counted, and the classroom size was estimated. The arrangement of tables and chairs was important. I was permitted to take pictures, and I tried to take as few as possible.

Classroom and participants. Class size as defined by Cuban (1993) varied from small size of six students of Faculty N to large size of 60 students of Faculty D, and moderate-sized of Faculty M's and Faculty P's class. However, Faculty D's class divided into small groups of six sitting together and a teaching assistant helped facilitate the group discussion. All the classes were arranged in a seminar-style and students were sitting around tables and prompt to work together. The classroom size varied from one class to another, and was not proportionate to the number of students in class. Some classrooms were adapted from traditional lecture rooms like in the subunits Faculty P and Faculty D. Most faculties had to find their own budget for renovation as it cost more money than the University could support according to OQA (2004).

There were additional participants for Faculty N's and Faculty D's class. Faculty N had professional nurses, and Faculty D had a teaching assistant to help facilitate their students to learn.

Classroom facility and instructional materials. Flipcharts and books were the commonality of facility arrangement to support students to work more efficiently in class. Flipcharts were used to record what of group discussions and posted on the classroom walls to view together and retrieve afterward. Selected books such as textbooks and some other related materials were put on a shelf or a cart (for Faculty D) in every class. Most

students had laptops and brought them to work in class either for searching data or presenting their works to class. In Faculty N's class, the students had to use the seminar room nearby for searching and discussion. Only Faculty D used loud speaker when she talked with the entire class before allowing students to work together. Special instructional materials were used in some classes like Faculty D's pictorial chart, and Faculty M's teaching models. Faculty M used various instructional materials to increase a better understanding of lesson. The instructional three-dimensional models were innovated from his experience in teaching. Faculty M also produced CAI for self-learning after class. Students' laptops were allowed to use in classes, and most of students used them.

The learning centers. I was invited to visit learning centers in each faculty. All faculties had their own learning center but located apart from the classrooms or in different buildings. The purpose of having learning center units was to facilitate students self-studying. They were the place to accumulate instructional media and studying toolkits.

Class Activities

The class activity intended to observe was the movement of faculty and students in class, and the sequence of activities and learning content arranged for the class. The time for each activities were roughly recorded. Notes were taken some parts of faculty's and students' dialogue during class interaction as guided by the observation checklist.

The ratio of student talk. This indicator could be roughly monitored while observing the class. Faculty M's and Faculty P's were almost totally student talk during the class. Students dominated the class from the beginning till the end. They knew the

process within classroom and doing step by step. Faculty D was different; she gave lecture for 30 minutes at the beginning of the class. The class session was three hours; students used the time left for discussion. Faculty N also oriented her students and shared their information at the beginning of the class. She suggested that students must know enough for the patient and asked her students, “How could we help the patient to cope with his pain?” After that students would practice as planned and Faculty N waited to supervise the whole session.

The learning content. The organization of learning content was observed as the indicator of how faculty prepared their lesson to be learned in class and the participation of students. Faculty N did talk with her students about the lesson to be learned that day, planned together, then guided her students to mine knowledge necessary for their problems. Faculty M and Faculty P practiced the process of PBL. Students set out the objectives to learn and planned to search data to solve the problems defined in the class. They analyzed data written in the scenario, wrote down the ideas introduced by participants, and asked to check with theoretical claims from books. The discussion went on one topic by another and no students kept quiet. They spoke freely during the class. Faculty merely asked some questions to motivate the class discussion. Faculty D talked about concepts and principles of lessons to be learned, and illuminated some key points learned from students’ self-reflection reports. She generated some questions for students during her presentation. Groups of students were assigned questions for discussion after the introduction. In the final hour, groups shared their knowledge learnt from the case study by making a round visit to other groups and gave feedback to each other.

The degree of physical movement allowed. There were no regulations or prohibition observed. Students were free to move around including in and out of the classroom.

Table 2

Faculty's Teaching Orientation

Indicators	Faculty			
	D	M	N	P
1. Arrangement of classroom furniture	LC	LC	LC	LC
2. The ratio of teacher talk to student talk	LC	LC	LC	LC
3. Whether most instruction occurs individually, in small groups, or with the entire class	LC	LC	LC	LC
4. The presence or absence of learning or interest centers that are used by students as part of their instruction	LC	LC	LC	LC
5. The degree of physical movement students are allowed without asking the teacher	LC	LC	LC	LC
6. The degree of reliance upon texts and use of varied instructional materials	LC	LC	LC	LC
7. The organization of learning content	TC	LC	LC	Partial LC

Note. LC = Learner-centered oriented; TC = Teacher-centered oriented

Summary

Faculty's patterns of teaching could be reflected by how learner-centered oriented they could be according to the indicators and Cuban's (1997) observable measures of learner-centered instruction. Data is shown in Table 2. According to the data, all Faculty observed oriented their teaching toward learner-centered.

Using the observation checklist could not reveal the emotional classroom climate or the relationship between the faculty and students properly (Cuban, 1997). However I found that it unfolded some clues of pedagogical progressives and teaching repertoires that faculty undertook faculty's roles in classroom, and the relationship for later interviewing with the faculty.

Faculty's Perception of Pedagogy

Evidence informing how the faculty perceived pedagogy were interpreted from interviews and written curricular they had designed for the classes. The data can be categorized into two topics: beliefs of teaching approach, and the relationship with students.

Beliefs of Pedagogy

Every Faculty believed in learner-centered approach. The Participants expect their students are able to achieve by their pedagogy in the following dimensions.

First, they believed in pedagogy which produced capability to apply knowledge in real situation. Faculty M stated, "We think that good teaching must equip students with what they can apply with the real situation. Learning does not only mean the level of how much students can remember the lecture, but also enable them to use their knowledge. The teaching method must help them to do it." "For me, I teach...and I want them to be

able to apply it to their patients. They should be able to think of how to apply it to what they do” added Faculty N. “My aim in teaching is, of course, to give knowledge to learners but what I want most is for them to be able to apply the knowledge which may not be only the knowledge that they get directly from the teacher but also what they get from the learning process. They should be able to think of how to apply it.”

Moreover, Faculty D elaborated, “We don’t want them to graduate with knowledge in one particular discipline because when they go out to work, the patients do not come to see them with only one single problem. PSU graduates as my goal and with the hope that when they graduate they will be competent (persons) who can integrate various disciplines.”

Second, the achievement of ability to learn of students was mentioned by Faculty P. She described, “The purpose of doing PBL is mainly to train students how to learn.” Faculty D illustrated how to learn in the real life, “We not only want our students to see their patients with their integrated-competencies but we also want them to be able to identify patients’ problems and to find answers to them.” As for Faculty N, she experienced students with problematic learning. However, she believed that every student was able to learn depending on how to approach them. She explained, “I think it is about the learner’s need and learner diversity; they are different from each other and we need to think of different activities and learning experience for them so that they all reach the same goal.”

And finally, Faculty M emphasized the remarkable goal of educational reform, “The teaching and learning process...is with the objective of guiding students to be

lifelong learners.” “We help them at the beginning and after they graduate, we hope they will be able to do the process by themselves”, added Faculty M.

Teaching Strategies

To achieve the mentioned pedagogical purposes, the participants elaborated their beliefs in teaching methods and strategies.

Conducting effective lecture. Faculty P stated, “I do not design my teaching to be lecturing alone, I do add some other activities, mainly case studies, to allow students to participate in my class. The reason is my lecture alone bores students and they get sleepy”. Faculty M admitted that he lectured basic knowledge to prepare students for PBL. He agreed that lecture alone was boring, so he created a museum of simulated human body to teach anatomy. He explained the reason, “we find that some students are not with ability for dimensional perception and cannot see three-dimensional images very well. But when they look at a three-dimensional simulated human body, they can understand clearly.”

Faculty N preferred telling example cases from experience to illustrate the knowledge content she taught. She suggested, “I think if your knowledge is not crystallized, you cannot simplify it and cannot give examples about it; you can’t think of it.”

Facilitating student’s active learning. Two participants, Faculty M and Faculty P conducted Problem-Based-Learning method to enhance students to learn actively. Faculty P explained, “Students learned how to earn their knowledge by themselves and they are able to think critically by PBL”. She appreciated teaching by PBL, and encouraged others to participate. Faculty M enjoyed the success of PBL teaching and the Faculty had been

recognized as the model of learner-centered approach of PSU. There was a different experience for Faculty D when she admitted, “PBL is not suitable for our Faculty’s curriculum structure but if it is a tool, then it might be all right. You cannot use PBL to do it because it has to be integrated with many things.” Faculty D preferred team teaching in the way that “team teaching helps integrate across disciplines and will give a better feedback to students about their competency development.” Faculty N recalled her experience, “PBL is costly and needs numerous facilitators to operate, our faculty tried to implement years ago and we could not afford.” She was confident with student’s reflection and Faculty’s feedback that enhanced students to learn actively.

Implementing systemic pedagogy strategy to confer educational ultimate outcomes. Faculty M experienced PBL as learning process implemented across the faculty. Faculty M explained, “In early year students are trained participating group process, and problem-solving by basic PBL courses. When they are experienced, they will be able to conduct more complex PBL.” Faculty D preferred Competency-Based curriculum design to enhance students to develop themselves directionally and ready to work effectively when graduated. She stated, “As for students’ achievement, there are objectives under each statement stating what competencies they will achieve when they complete according to the objectives and their competencies are integrated-competencies.” and “If students were taught based on discipline by discipline, they would be lack of holistic perception of problems.”

The Relationship of Faculty and Students

According to van Manen (1994), pedagogy means more than teaching method. He maintained, “The very term pedagogy already brings out the relational quality between

teacher and student, in a manner unlike any other educational concepts such as curriculum, instruction, or teaching” (1994, p. 140). When I asked faculty to explain how their relationship with students looked like. There were two themes of relationship emerged from the class observations, the interviews with the participants and the documentation.

Mother-child relation. The first theme is *mother-child relation*. Faculty N illustrated, “It’s probably a mother-child relationship. This means that when we teach we think that we are teaching our children and we want them to be good persons. We try to give them good things. Our students love us as they love their mothers and they call us ‘Mother’.” and she added, “We also give them other things other than knowledge in their field.” The meaning of “mother and child” in the relationship was supported by Faculty P, “I think it is mother and her children sense of relation between me and my students. My age could be their mother.” Faculty N explained that studying nursing was a hard work. Students’ reflection for what they learned always contained lively matters of what they felt during they studied, so I would rather take a good care reading their reflections and I learned how to teach and help them learn more. I was permitted to read some of her students’ reflection, and I found that there were other things more than the lesson. It contained how students thought and responded to what happened in the real situation, for example: “I think that doing the same as people have done routinely is not always a good policy. Your taught dare me to think critically.”, “Thank you teacher, you help me change my thought. Now I am not afraid to work with patients any more, but I am eager to work, to take care of inability-patients. It makes me proud.” I can see the interrelation between what Faculty N conducted her pedagogy and Manen’s postulate: “It’s only in certain

relational contexts that the thinking life, the developing identity, the moral personality, the emotional spirit, the educational learning, and sociopsychological maturing of the young persons occurs.” (p. 141).

Mechanical academic relation. The other view of the relationships was more that of a *mechanical academic*. Faculty M and Faculty P explained about the relationship between teachers and students in the way that teachers took the role facilitating students to learn. Facilitators were expected to perform like a tool in learning process. There were strict rules for facilitators to follow when worked in class. The facilitator role varied from faculty to faculty as I could observe from the classes.

The facilitator for Faculty M rarely contained personal relationship between facilitators and students. It was random matching between facilitators and classes. They used a seating map to recognize their students’ name and for use in evaluation. When I told Faculty M that I could feel that there was a distance between the teacher and students in the class, he accepted and said that it would be better when students were in the third year at clinic level. Students would work with their teachers closely in clinical classes. In my opinion, a huge workload for facilitators to do for their classes may keep faculty busy in teaching and evaluation. Faculty P’s role as a facilitator contained more personal matter. I could observe Faculty P was flexible and careful. She knew her students and could call their names. She tried to break tension in class by asking some questions to make them move.

Faculty D decided to use information technology to help her to follow up students’ development of competency. She explained that faculty could evaluate

student's performance through computers, and every faculty could see the whole picture of their students' performance including students' behavior and ethics.

How Faculty Learn Progressive Pedagogy

Here, I now describe how faculty learned to engage in progressive pedagogy. Two main questions were used to interview the participants. One was "Please explain how you learn your teaching approaches, and the other was "From whom you learned the knowledge?" However, it was interesting that when I asked the faculty the "how" question they explained "why" in addition to the answers as well.

I decided to interview more involving persons and mine data from more documents namely the annual reports of faculties. During data collection I got support from a former vice president of PSU. His suggestion led me to trace back to where the information of progressive pedagogy came from.

Faculty D

"As we know, when a patient comes to a dentist, he/she does not come with a problem of each particular discipline but with complicated or complex diseases." Faculty D started with a problematic scenario of the traditional teaching approach for dentistry students. "Students who have been taught in each discipline see human being in parts ...(they) would not be as profound in their perspectives." added Faculty D. She emphasized that the school needed integration of necessary disciplines of knowledge including social and behavioral sciences to solve the holistic health problems.

Faculty D said that "by chance I had an opportunity to attend a course of self-directed learning abroad (Dundee Scotland) under the sponsorship of British Council." There she met with D1. This program was introduced by D3, the former Dean at that

time. The program inspired her to think of education as a way to roll out a new approach in teaching and know what the Faculty should do to be active learning. She decided to continue her study with D2 at School of Education in Australia in 1996. She learned how to teach by competency-based approach from the university, and proposed to reform the whole curriculum at the time she returned to work in 2001.

Faculty D was inspired by & from the Faculty of Medicine when she once read his article which reflected the future of Thai doctors and how disappointed it was. She admired & as her role model:

& is my inspiration. He was my advisor at the time I began to do (to reform the curriculum). Once he told me that once I had decided to make a change, I would prepare for a hard time to come over ten years...He encouraged me a lot.

The Faculty of D had attempted to reform its curriculum long before the success of competency-based approach established in 2007. The University particularly applauded the endeavor to change teaching method throughout the faculty as it had been a long march from 2001 until now—congratulations (Siribumrungsukha, 2008c). It was the year when Faculty D graduated and started to reform the curriculum. Formerly the faculty attempted to implement multidisciplinary cooperative learning model, but there was an uncertainty about the teaching approach and faculty staff were reluctance to change (Faculty of D, 1998); the report said, “most faculty see the importance of individuals and change is the thing that depends on individual faculty, there might be other alternatives of teaching models” (p. 18). Faculty D revealed that it was the drive of the National Education Reform that made the competency-based approach possible for the Faculty.

However, Faculty D admitted that the new approach of competency-based could hardly be realistic if the faculty did not have outside experts to standardize the objectives of the courses. She elaborated “We need to consolidate our faculty staff’s way of thinking due to they are from different disciplines with succinct boundary while we need them to teach as a team.” She invited D4 and experts from *Thai Health Promotion Foundation (THPF)* to help prepare faculty staff. It had taken two years long for this process before she was sure that the new teaching approach was in place.

Faculty M

“I think that having opportunities to go places helps a lot” replied Faculty M when I asked how he got the ideas of progressive teaching. E-learning was what Faculty M got an idea from M2, the dean of the Faculty of Education. M2 graduated with a Ph.D. in educational technology from the University of Missouri. He explained how M2 brought the idea to him:

Once I visited M2 at the Faculty of Education in Pattani, he told me to think about why not we make a clip of what we do lecture and present it our students whenever they want to review.

M2 was the one who inspired me to teaching through e-learning in which I had no knowledge at all at the beginning. Lectures on core knowledge are needed for students and we do it repeatedly every year. I wonder why we have to do that same thing over and over again. Students can just read about them, do self-study and take a look at the clips in e-learning materials. Instead of teaching, we can use the time to teach students how to put their knowledge to work. That makes the meeting time with students more worthwhile.

M2 introduced Faculty M to M9 and another faculty staff who were keen in educational technology. Faculty M said that he later developed the computer-assisted-instruction (CAI) lessons successfully.

Learning how to teach by simulation was another phenomenon of Faculty M. Faculty M reflected the experience in teaching anatomy, “pure anatomy is boring and we find that some students are not with ability for dimensional perception and cannot see three-dimensional images very well”. “Using a model can help”, recalled Faculty M:

Once Ajarn Kasem (a faculty staff) brought a piece of (human) bone to me and asked whether it could be used as a model. I proposed to add value to it by adding blood vessels and nerves using tennis racket strings. We could see where the blood vessels and nerves run.

Faculty M had more to tell about the simulation—how rubber technology has become a part of educational media. Faculty M elaborated the situation when he taught his students to treat traumatic patients in real situation:

The problem in seeing the patient is different situations that we cannot always find the right patient as required by the objective. For example, the case may be too severe and not suitable for them to encounter. Conversely, the patient may not have a badly injured and therefore is not suitable for them (to practice traumatic condition) as well. We can either use a model or a real human body, a patient.

How Faculty M learned the rubber technology was simple, but the follow-up action of Faculty M was glorious—it meant step-up innovation of teaching the “___” sciences. The outstanding application was simultaneous human skin which has been used for practicing injection and surgery. Once he spent a visit the rubber technology

exhibition presented by Faculty of Sciences in the PSU Open Week Fair which performed anniversary at Hat Yai Campus, he met M3 (a scientist) who was a faculty staff of the Faculty of Sciences. He revealed,

the idea came from the talk with the scientists that day. Then we went on trials and errors, but it seemed time consuming because the development was quite slow. Eventually I had met another material expert who was in the team, and we developed together until we came up with the finished product that can be used for teaching our students—an *artificial human skin*.

When I asked Faculty M to talk about how he learnt to teach by PBL methodology. He said that @ was the person who introduced the PBL approach to our faculty. He reflected how he learned PBL, “At first I did not understand PBL but when I looked at how we taught; we had already done that and it was rather problem-solving than problem-based... So when I am a teacher, there is a policy to adopt the PBL approach. I go to study because I like education”. Faculty M added that he was persuaded to join the administration team as the Assistant Dean for “____” by @. That was the first time he knew @ and had a good chance to learn the learning sciences of PBL.

For me, I felt like “pains and gains play” for what had happened to the organization when Faculty M depicted how it changed the teaching and learning approach and for confidentiality purposes, terms of professional area were replaced by “____” to aid in preserving the context of the statement without revealing identities of the participant:

it was a policy, lecturers in the Faculty of M had to know what PBL was like; at least they should know the concept of PBL. The change was rather radical. Some

courses were terminated or changed to PBL. There was resistance from people who did not agree to the change but “_____” organization of Prince of Songkla University was quite strong and made the change in spite of the disagreement. When PBL was implemented, all departments had to do it to achieve the KPI. There was resistance because teachers did not want to change their teaching method.

To illuminate how the organization successfully made a shift from the traditional teaching approach to a new learner-centered teaching method, I decided to trace back to see how it changed. Documentary evidences and personal communications relating to the events were recorded and reported as the following.

The change of “_____” education was triggered in 1987 (Faculty of M, 1989) when leaders at that time were convinced that conventional teaching methods could not cover the ultimate outcomes of education. Professor Vicharn Panich (personal communication, November 4, 2008), an outstanding scholar of Thai education and the former Dean of the University during 1985 -1989, described the situation of “_____” education in this way:

Knowledge content of “_____” sciences grew everyday with accelerated rate. More and more new theories were discovered and teachers tried to transfer all the knowledge they knew to their students. It was tremendous and students could not absorb all the theories which teachers intended to give them. Students were joyless in studying and felt burden with tons of knowledge.

Dr. Mayuree Vasinanukorn (personal communication, July 10, 2008) the former associate dean illustrated how faculty taught the time before 1987, “When I started my career in 1980, we taught with only a few “_____” textbooks. It was not relevant to what was I had

seen abroad where a plenty of new researches and articles about diseases and treatment were published. We called 'knowledge explosion'." Dr Mayuree also reflected another problem of "___" education, "Our students studied one by one subject. They could not recall their knowledge when they started to study in higher levels—pre-clinic and clinic courses or they cannot integrate their knowledge." Teaching and training professional doctors in early time had a history of the attempt to develop a sound teaching approach for medical students. Professor Tongchan Hongladarom (Varawit, 2005), who has been recognized as the Father of Thai "___" Education, at that time had organized workshops for training "___" how to teach by using the service of experts from schools of education, but the outcomes were limited successful. The reasons were that the experts could not understand what doctors really were and could not clearly see how to apply learning sciences to "___" education.

The unclear direction of "___" education in the early years of Faculty of M caused the faculty to strive for teaching good. According to Professor Vicharn (personal communication, November 4, 2008), there were distinct approaches of "___" educational reform in the global mainstream, one was community-based and the other was problem-based education. He was confident that students would be joyful to learn if they learned by problem-based approach. Moral and other humanity issues would have its room for application as well. He raised an indispensable point of how the faculty got start to reform, "The global mainstream of '___' education reform flew into Thailand, and every university could perceive equally. However, most of universities might either decline to perform or be lack of mechanism to adopt the reform concept. But I believed it was

convincing and I took it seriously. I proposed that the faculty needed ‘___’ education unit to support and bring it to reality.”

The plan to reform “___” education became clearer under the administration of Dean Vicharn Panich. However, the concept for the reform had to be crafted. Workshops and seminars were organized and experts were invited to address theories and concepts of learning for “___” education. Dr. Jacobus M Greep from the Netherlands and Professor Henk Schmidt from the United States were among the experts. In addition, two faculty were sent to study at McMaster University in Canada, and Maastricht in the Netherlands. Finally the faculty had stipulated its future aim to redirect the process of “___” education to be more problem-based, student-centered, and self-directed with more allowance for integrated multidisciplinary learning (Faculty of M, 1989). In 1990 the faculty began implementing PBL in the preclinic curriculum. It said in the annual report of 1989-1990, “So far we are progressing slowly with this method of instructions...the hesitation to leap ahead is in the lack of preparedness of our students, and the lack of understanding of the role of the facilitators and their time” (Faculty of M 1991, p. 21).

The journey of the medical education reform at the Faculty of X was not easy. The faculty had struggled along the way during the time of Dean Tada Yipintsoi and Dean Pantipya Sangaunchua. Yipintsoi (personal communication, November 12, 2008) portrayed the situation in the faculty at the beginning of reform process that M1 and @ were the persons who put most effort in the midst of various perception of the change; there were faculty who were active, non-active and inertia. He gave a precaution to the active group not to presume that every faculty had to agree before the start—just go on. The change came to reality in 2000 when Dean Kitt Limapichat claimed, “The problem-

based-learning curriculum (PBL) has now been fully implemented into year 2 and year 3 of the pre-clinical program.” (Faculty of M, 2002, p. 1). It was system-oriented PBL.

Faculty P

“Think of how to make your teaching attractive, you need to imagine if you were a student and think of what will attract you to learn” said Faculty P and added, “I used to try many ways to keep my students alert along the way when I teach.” Faculty P began to teach by PBL methodology in 1995. She described the situation when she adopted the teaching method:

I could remember that there was a student-centered concept in academic mainstay at that time and there was a dialogue among academia whether the concept should be applied to our teaching or not. That time I was the Associate Dean for Academic Affairs. We did not really know what the student-centered concept was. We (the Faculty) undertook a lot of workshop for the whole faculty to make faculty staff known about the concept. And it was by chance I had met @--a faculty staff of the Faculty of M. He told me that the Faculty of M had implemented PBL at full scale for the whole faculty. Since then, @ became our resourceful guest speaker to train our faculty staff. However, it was not all the faculty who adopted the concept; there was only one department that successfully implemented it—that was the department of ‘___’ which I was a member. I have been teaching by this method up to now. I believe it is a better teaching and more beneficial approach for our students than the traditional one. I can remember that & helped teach us as much as @. We had a guest speaker from Khonkaen University also.

Faculty N

“Always take notes of how resourceful speakers perform their presentations; there are always good techniques we can learn.” Faculty N said, “It’s my favorite to travel and attend meeting or conference; I always take note while I listen to the speakers.” When I asked her how she learnt the progressive pedagogy, hardly could she remind herself where the pedagogy came; but finally she spoke out “Dr. Parker!” Dr. Parker was a nursing professor from Atlantic University at Florida USA. She came to Thailand and visited the Faculty of N for student-exchange program. Faculty N was assigned to be a translator and was asked to take care of Dr Parker. Then one day she recalled:

We went to the mountain and to pray worship to the Buddha Statue on the mountain. On the way Dr. Parker talked to me the importance of doing reflection in the daily life. I nearly forgot how I learnt the reflection method. When I practiced, it was really impressive. Now every student has to reflect of what she applies her knowledge learnt to care her patient. I could see my students clearer of how they learnt and felt when they were with their patients. I could see other important dimension of learning—ethics. Reflection is now my priority in learning process when I teach my students. Every student must reflect what she has learnt either oral or written. Students’ reflection tells me whether they learnt and what happen to them when they apply my taught to their patients.

Faculty N did not mention any connection of teaching ideas with the National Education Reform when I asked about the learner-centered approach. She plainly explained how she learned to teach and that she personally believed it and incorporated learner-centered teaching in only some courses due to the limitation of the class size, “our

clinical classes are taught by learner-centered approach due to the small class-size; we have a chance to know students' learning style and try to match our teaching in accordance with their ability.”

Personal Relationships of the Participants for Pedagogical Knowledge

The purpose of the study was to determine the relationship that existed and describe them. To accomplish this, the participants were asked to respond a set of questions including with whom they had discussed about how to teach students during the past six month, their alters' background, what knowledge about teaching and learning they learned. The respondents were then asked to determine how close the relationship, length of acquaintance, contact frequency, and beneficial purpose of the relation between the ego and alters. Finally, the respondents were asked to identify their demographic information namely the highest degree they earned, the number of years teaching experience, and roles in academic administration. However, some meaningful relationships of the participants were older than six months and they were somehow no connections during the past six months. I decided to assign more flexibility to the time boundary of relationships in regard to the usefulness of data for this study.

To ease the presentation, I put all the contacts of each participant and their characteristics in a table. The participants' background was derived from their professional expertise or areas of work such as nurses might have different areas of expertise like surgical, medical, educational nursing. The background is then presented as similar or diverse accordingly.

The beneficial purpose of the relation (BP) accounts for the personal benefit which can be expected from the relations such as promotion. The types of relations (R)

are what were defined by participants. The number of years known (Y) represents time intervals the participants know alters: 10 represents ten or more than ten years. The last characteristic is the contact frequency (F): the answers of fluently and more than once a week were high frequency of contacts.

Most of the relationships were reported by the participants as none or low expectation of rewards or economic returns. Only some of the relationships were reported as high, like the relationship between Faculty M and alter M10 as a direct employer-employee relationship. The relationship could be interpreted as high expectation of economic returns.

Data for Faculty D are summarized in Table 3. As you can see most of the alters have the diverse backgrounds in compare with Faculty D. They either graduated from different field of study or working in the different departments. Faculty D and alter D5, D6, and D8 had benefit in working as they adhered to the same purpose of the task of administration. Other characteristics showed a mix of information as described by the participant. Faculty D is a member in the university administrative committee for academic affair.

Table 3

Faculty D: Characteristics of Relationship

Alter	Background	BP	R	Y	F
D1	diverse	low	acquaintance	10	low
D2	diverse	low	acquaintance	10	NA
D3	diverse	low	colleague	10	low
D4	diverse	low	acquaintance	5	low
D5	diverse	high	close friend	10	high
D6	similar	high	close friend	10	high
D7	diverse	low	colleague	5	low
D8	similar	high	close friend	10	high
D9	similar	low	close friend	10	high
D10	diverse	low	colleague	5	low
D11	similar	low	close friend	5	high
A1	diverse	low	acquaintance	5	low
&	diverse	low	acquaintance	10	NA

Note. BP = beneficial purpose of the relation; R = type of relation; Y = years known; F = contact frequency

The data from Faculty M are summarized in Table 4. They tell a story of how the relationship between Faculty M and his alters differs from one alter to another. Most of the alters have diverse background due to their different areas of education, and some works far away like alter M2, M8, and M9. Faculty M has less close friend in his relationships in pedagogy. M10 has become Faculty M subordinate after he created the

project of artificial skin for teaching media purpose. M6 is Faculty M's assistant in administrative work. Most of the alters have low expectation of benefit from each other.

Table 4

Faculty M: Characteristics of Relationship

Alter	Background	BP	R	Y	F
M1	diverse	low	colleague	10	low
M2	diverse	low	acquaintance	5	low
M3	diverse	low	acquaintance	5	low
M4	similar	low	close friend	10	high
M5	diverse	low	close friend	3	high
M6	diverse	high	subordinate	5	high
M7	diverse	low	close friend	5	high
M8	diverse	low	acquaintance	10	low
M9	diverse	low	acquaintance	5	low
M10	diverse	high	subordinate	5	high
M11	similar	low	colleague	5	low
M12	diverse	low	colleague	5	low
M13	diverse	low	colleague	5	low
@	diverse	low	colleague	10	low
A1	diverse	low	acquaintance	5	low
A2	diverse	low	acquaintance	5	low

Note. BP = beneficial purpose of the relation; R = type of relation; Y = years known; F = contact frequency

Faculty M is a member in the university administrative committee for academic affair and for e-learning development.

The data from Faculty N are summarized in Table 5. The alters have more the same backgrounds with Faculty N and are more close friends. The alter A1, and A2 became university administrators three years ago but Faculty N said that they were close friends and dialogue frequently. The alter N3 moved to work in the capital which is far away more than ten years ago and rarely comes back. N3 has created a PBL teaching approach successfully at her university. She became an administrator in other university. Alter N1 and N2 live abroad but they met when they came to Thailand once a few years ago.

Table 5

Faculty N: Characteristics of Relationship

Alter	Background	BP	R	Y	F
A1	diverse	low	close friend	10	low
A2	diverse	low	close friend	10	high
N1	diverse	low	acquaintance	3	low
N2	diverse	low	acquaintance	5	low
N3	diverse	low	close friend	10	low
N4	diverse	low	close friend	10	low
N6	similar	high	close friend	10	high
N7	similar	low	close friend	10	low
N9	diverse	low	colleague	10	low
N10	similar	high	close friend	10	high
N11	similar	low	close friend	10	high
N12	similar	high	close friend	10	high
N13	similar	low	colleague	5	low
N14	similar	high	colleague	5	low

Note. BP = beneficial purpose of the relation; R = type of relation; Y = years known; F = contact frequency

The data from Faculty P are summarized in Table 6. The alters of Faculty P are persons whom she has known for more than ten years. Some work in different departments and rarely meet. Some alters are her close friends but some are not. P6 and P8 works in different universities far away but she said that the alters were her close

friends and they communicated often. P2 is a faculty administrator whom she talks with sometime. P2 is a member of the university committee for e-learning. & was an administrator but he died four years ago. Alter @ works in a different faculty; they knew each other in a meeting more than ten years ago.

Table 6

Faculty P: Characteristics of Relationship

Alter	Background	BP	R	Y	F
@	diverse	low	acquaintance	10	low
P1	diverse	low	acquaintance	10	low
P2	diverse	low	colleague	10	low
P3	similar	low	close friend	10	high
P4	diverse	high	acquaintance	10	high
P5	diverse	low	colleague	10	low
P6	similar	low	close friend	10	low
P7	diverse	low	colleague	10	low
P8	similar	low	close friend	10	high
P9	diverse	low	close friend	10	high
P10	similar	high	close friend	10	high
P11	diverse	low	relative	10	high
&	diverse	low	acquaintance	10	NA

Note. BP = beneficial purpose of the relation; R = type of relation; Y = years known; F = contact frequency

Chronicle of Pedagogy Reform

To summarize the events that happened to the faculty's pedagogy, a table of chronicle was created and data concerning of time had been put together from the very beginning of faculty's pedagogy reform through the ongoing of macrosocial. Data was summarized in Table 7.

Table 7

Chronicle of Pedagogy Reform

Year	Facilitating Factor	Pedagogical Change
1979-85	Tongchan as the President	
1987	Vicharn as the Dean of M	Adoption of pedagogy change—Faculty of M
1990		PBL start in Faculty of M
1995		PBL start in Clinical Pharmacy Department
1997		Great Financial Crisis initiated in Thailand; Initiation of pedagogy change—Faculty of D
1999	National Education Act	
2000	PSU's research-oriented; PDCA-Par quality strategy	Faculty of M's success of PBL
2001		Initiation of competency-based—Faculty of D
2002	Comprehensive QA in PSU; TOR and KPI	
2003	1 st ONESQA evaluating PSU	

Table 7 (continued).

Year	Facilitating Factor	Pedagogical Change
2004		Initiation of reflection teaching of Faculty N
2007	Selective networking strategy in educational technology	Start of competency-based throughout Faculty of D
2008	The re-emerging of pedagogy in top administrators	
2009	Teaching as University's Agenda	

Note. Data derived from the study's documentation and interviews

Summary

This chapter presented the data collected from all sources which were conducted in the study. The data was arranged in three consecutive parts from macrosocial of the University and social mainstream to microsocial of faculty and their relationships. Data was summarized and manipulated into categories, tables, and flowcharts in the manner of triangulation among the three sources of data with respect to the theoretical propositions in this study. This serves as reference for the data analysis in Chapter V.

CHAPTER V

ANALYSIS OF THE DATA

The University is a government-owned university; it comprises of 25 faculties serving in five campuses. In term of administration, all the faculties are obligated to comply with the University's organizational policy and strategies which are formulated by the top management and the President represents the highest authority in implementation according to the University Act. The University is now in the prolong decades of the National Education Reform, the National Education Act of 1999 is the hallmark of substantial changes in educational realm for the whole country. The timeline for changes was stipulated by the Act and the University was first monitored in 2005 by the Office for National Education Standard and Quality Assurance (ONESQA), the private agency that serves the government to assure the compliance of higher educational institutions with the National Education Reform. One of the prominent criteria is the student-centered approach in teaching process.

The purpose of the study was to examine the relationships developed among faculty at the University in implementing the new and required pedagogy reform strategies. It was the intention of the study to describe the relationships through the lens of Network Analysis (Granovetter, 1973, 1983) and Perpetuation Theory (Braddock, 1980; Wells & Crain, 1994). The following analysis of data answers the study question of

“how” and “why” faculty’s pedagogy changed.

Analysis of The University’s Policy and Strategies

Data from this study showed how the University planned to anticipate the changing environment of the National Education Reform, The policy was reformulated and strategies were then stipulated according to the policy by using the strategic planning process in 2003 (Division of Planning, 2003). The external environments, including the National Educational Reform, were analyzed as a part of strategic planning process. The current strategies facilitating faculty’s pedagogy reform emerged namely curriculum redesign, training and retraining faculty how to teach on a continuing basis, facilitating faculty with physical facilities and educational technologies, and ensuring collaboration among faculty. The following are the themes of analysis.

Direction of Policy

In general terms of administration, the University’s policy would affect the educational development movement of the organization. From the beginning until the policy to anticipate the National Educational Act 1999 was stipulated, the data showed the University had to revise the long-term plan intermittent of the time frame and needed time to readjust to the new environment. The University had to decide the best way to survive in the great financial crisis circumstance that had just hit the country two years before the National Educational Act. According to Division of Planning (2003), the budget for the University from the government was depreciated since the financial crisis while there was a threatening demand for a higher skilled labor market in anticipation of global competition. There was another threat, faculty overlooking conducting research which could disturb the long-term capacity of the University’s competitiveness. All these

threats pave the way for the University to look for a more promising strategy of research-oriented direction.

The defensive option for the pedagogy development strategy and research-oriented direction policy affected the budget allocating to facilitate teaching resources in faculties and the interest of faculty staff in teaching. This might cause the lack of capability including human resources for the move. The policy therefore affected faculty staff in micro-social environments as well. Consequently a lack of funding might be the cause of the faculty's perpetuation in traditional teaching approaches during the past decade of educational reform. The evidence of the limitation of budget to support learner-centered approach and faculty's concern about their career path growth supported this claim.

Short-Term and Long-Term Outcomes

The importance of short-term and long-term outcomes is the prominent argument of Wells and Crain (1994) when they studied the long-term effects of school desegregation. The meaning of short-term outcomes of school desegregation, according to Wells and Crain, are academic achievement, self-esteem of black students, and inter-groups relations, while the long-term are social mobility and economic effects. Wells and Crain (1994) elaborate, "Meanwhile, policymakers and researchers lost sight of many of the theoretical underpinnings embedded in the long-term goals of school desegregation policy" (p. 532). They argue that policymakers need to look beyond the short-term effects and focus more on long-term social and economic outcomes, "because educational achievement alone does not solve the problem of economic inequality; school

desegregation must...also break the cycle of racial segregation that leaves blacks and white whites apart” (p. 533).

The University’s strategies, which intended to facilitate faculty to reform their pedagogy from the traditional emphasis on memorization and reproduction of knowledge to confer the learner-centered approach, tended to emphasize on short-term aims.

The curriculum redesign strategy accompanied by TOR and KPI was mostly used to meet ONESQA’s and CHE’s quality standard requirements, and to earn high evaluation scores. In the present days of educational competition, benchmarking of the university becomes prominent in the higher educational mainstream. The university’s reputation was tied to the university’s ranking. Most universities strive for a better ranking in the world society. So gaining better scores of evaluation is meaningful for any university including PSU. However, the total score may easily cause policy makers to lose sight of some indispensable aspects of education as a whole. The evidence when the Evaluation Committees on the President (Siribumrungsukha, 2008a, n.p.) gave a comment for the University’s policymakers represented the cautious concern, “Being a research university must not make faculty neglect their teaching and their students; but must be in the way that the stronger the research maneuver is, the more enjoyable and academic the learning of students shall be.”

Wells and Crain (1994) emphasizes on long-term outcomes of sociological changes—social mobility, economic effects and breaking the cycle of racial segregation, and gives a cautious concern when policymakers require instant feedback of short-term effects—i.e., achievement test scores, self-esteem of black students. The University’s measures that aim the foresight outcome of the ONESQA’s evaluation scores instead of

social mobility and pedagogy reform of faculty can be claimed as short-term oriented policy. There might be an argument that the University did have the measure to train and retrain faculty to teach more effectively, but this was like a rainmaking strategy which could not pass shelters sometime. There was also an evidence for this case when the Vice President for Academic Affairs revealed that “Faculties are not confident that their teachers will surely attend the project, they send no teachers at all to attend it.” and, “It may be because of difficulty in getting speakers to come here and during a semester only a few teachers can participate and so we cannot arrange it.”

In addition, Banta et al. (1996) reveals that they do not rely on benchmarking and assessment processes as the indicators have mostly unsuccessful, inhibiting rather than improving performance. Their claim is consistent with the University’s experience. In this case, there was supporting evidence from the participants of this study:

Faculty D: The University does not understand learner-centered concept; using CAI, PBL, learning by virtual classroom, or others as the KPIs of learner-centered practice has led faculty staff to a wrong way.

Faculty N: I don’t think some KPIs like CAI, laboratory hours, learning by virtual classroom would reflect learner-centered approach of faculty who teach that courses.

Kezar (2001) claims that the attempts of policymakers to develop macro-level or transformational changes are cautious about the concern that “loosely coupled nature of higher education may hinder these efforts” (p.71). The nature of faculty is another issue which could undermine the University’s effort for change. This might raise a question

about the effectiveness of centralized policy without a support of decentralized measures.

However, one thing that must not be overlooked is the new initiative strategy of networking from the Vice President for Academic Affairs and the Assistance President for Learning Resources. I perceive it like a morning sign of new generation of the University's policy as it differentiates itself from the traditional viewpoint of administration. The strategy is to increase the penetration of the supports direct to key faculty and create network for faculty's development. Nonetheless the strategy focused on selective aspect and e-learning was the choice but not the faculty's pedagogy.

According to the mentioned above evidences, the University might have to reconsider the policy and strategies for changes to appreciate faculty's pedagogy evolution. Long-term approach instead of too emphasizing on short-term strategies as suggested by Wells and Crain (1994) and incorporated with sociological and theoretical oriented aim may be urgently needed. In addition, strategies enhancing the bottom-up or decentralized approach is claimed to be a better option.

Analysis of Faculty's Relationship

Granovetter's (1973, 1983) Network Analysis was used to analyze faculty's relationships and their effects on the University's changes in pedagogy. The importance of the analysis to this study is to give a theoretical support of how faculty's relationships can help faculty to access to the information of progressive pedagogy and the influence of the educational reform from the social mainstream.

Wells and Crain (1994) believe "the social network advantage of desegregated schools for African-American students is real" (p.533). Likewise Wellman (1983)

emphasizes that the most direct way to study a social structure is to analyze the patterns of ties linking its members while the pattern of ties in a network provides significant opportunities and constrains the access of people and institutions to such resources as information, wealth, and power. Both of the studies from Wells and Crain (1994) and Tsoukalas (2007) appreciate Granovetter's (1973, 1983) *Strength of Weak Ties Theory* (SWT) that helps build a bridge to important question of how individuals and social groups accommodate the need for change in their life situation. Granovetter (1973) describes the way to analyze whether relationships in social network are weak or strong ties:

the strength of a tie is a combination of the amount of time, the emotional intensity, the intimacy (mutual confiding), and the reciprocal services. Each of these is somewhat dependent of the other though the set is obviously highly intracorrelated (p. 1361).

Therefore the analysis of faculty's interpersonal relationships in this study was conducted in two dimensions in a consecutive manner. First, the analysis of the relationship patterns in regard to Granovetter's (1973) postulation of the strength of ties was conducted. Sociograms (Moreno, 1935 as cited in Major, 1999) were subsequently created to illustrate the interpersonal social networks: strong and weak ties. Then, second, the effects of the strength of ties on short-term and long-term of pedagogy reform was determined.

Determining the Strength of Faculty's Ties

The data in Table 3, 4, 5, and 6 as presented in Chapter IV was used as the precursor for analysis of faculty's strength of ties.

Emotional intensity. The emotional intensity deals with the commitment that individuals engage themselves to their groups. Granovetter (1973) asserts that intensity is a concept which deals with the emotions involved in the relationship. Major (1999) claims, “Strong ties have a history and a mutual commitment to the continuation (time) of the relationship. Likewise, individuals who spend their time working together regularly for a long continuation and experience of success or failure together, the relationship is considered to be strong tie. Tsoukalas (2007) elicits emotional intensity from group’s ideology that tends to remain isolated due to intense cohesion.

To determine the emotional intensity of the relationship, the data of type of relation (R) and the length of time they know each other (Y) were used to determine the strength of ties: close friend and subordinate might be interpreted as strong emotional intensity while colleague and acquaintance tended to be interpreted as weak. As for the length of years known, I found a difficulty to address the number of years to interpret the strength of emotional intensity; however, more than ten years of acquaintance should be considered strong.

Intimacy. The area of intimacy deals with the similarity of individuals’ thoughts and backgrounds in a group (Granovetter, 1983). Major (1999) supports the claim that strong ties would indicate shared knowledge where weak ties would indicate diverse knowledge. The intimacy of ties, therefore, can be gauged from the closeness of relationship like good friends or faculty with the same educational preparation; these relationships are considered strong ties. The participants’ background of their education was collected and compared to categorize whether they were similar or diverse.

The data of compared backgrounds in the tables were used to determine the

intimacy of relationship: in this sense, similar backgrounds between the participants and their alters were determined to be high level of intimacy, conversely the diverse backgrounds would yield low level.

As the departmentalization of the University's organization was closely related to the functional expertise of faculty staff, most of members in a department had the same educational area. The data from my observation of the organization and demography of faculty in the same department at the University like the Department of Orthopedics, Department of Clinical Pharmacy, or others in any faculty, would consist of faculty staff who were specialists in the same area, or faculty who graduated in the same or related areas. While in the administration process of the University, departments in faculty were assigned as academic production units (OQA, 2004, 2008): *TOR* like *KPIs* and *LU* was assigned to the department level. In the University's administration process Departments were perceived as the ultimate administrative units to which the University would allocate the authority and responsibility. The *intimacy* therefore could be created among faculty in the department.

Reciprocity. The concept of reciprocity deals with the benefit individuals receive from the relationship (Granovetter, 1973). The reciprocal services of ties are consistent with the idea of individuals' economic expectation onto groups. Employment insecurity and economic pressure make individuals believe themselves without alternatives (Granovetter, 1983). Major (1999) argues that reciprocity can be defined as the mutual rewards, tangible or non-tangible which individuals receive through interactions. The reciprocity, therefore, can be defined as individuals' expectation on job promotion or

economic related rewards from their relationship and the relationships by this definition are strong ties.

The data of beneficial purpose of the relation (BP) was the perception of the participants of their relationships with alters. In this case, BP was used in determining the reciprocal services of ties: the high expectation of BP reported by the participants could be interpreted as high reciprocity of ties between them.

Time. More time of contact between individuals would probably lead to stronger sentimental of friendship (Granovetter, 1973). However, Major (1999) found that frequency of contacts might not be a good indicator of the strength of a tie since it could be the result of contextual factors such as place of work setting. Time, therefore, might be a supportive indicator to the other characteristics of ties. Time in this study was assumed from the frequency of contacts between the participants and their alters.

The higher frequency of contact between the participants and their alters would support the strength of ties. There were some contacts in the study which could not define frequency in the current situation because of some alters were no longer alive.

Most of the participants' relationships could be directly defined when there was convergence to the concepts of ties see Tables 8, 9, 10 and 11. However, there were some relationships which I interpreted as strong ties despite some characteristics. Granovetter (1973) asserts that each of the components of ties is independent of the other. Simmel (1950 as cited by Granovetter, 1973) gives a useful clue that ties with only one content or with diffuse content may be strong as well. Ties between Faculty D and D5, Faculty M5, M6, M7, M10, and Faculty N and N4 were these cases. There was a case of the relationship of Faculty N and N3 which I interpreted as a weak tie despite Faculty N

response that N3 was her close friend. My argument was N3 by the time had moved to work in another university in Bangkok (far away from PSU) for more than ten years, and they hardly met or communicated. Both would have different circle of community or Gemeninschaft (Granovetter, 1983). Baker (1994) asserts that “those (people) with diverse backgrounds, travel in disparate circles, or hold different positions in the organization—know different things” (p.137).

Table 8

Faculty D: Interpreting the Strength of Tie

Dyad	Intimacy	Reciprocity	Emotional Intensity	Time	Strength of Tie
D-D1	low	low	low	low	weak
D-D2	low	low	low	low	weak
D-D3	low	low	low	low	weak
D-D4	low	low	low	low	weak
D-D5	low	high	high	high	strong
D-D6	high	high	high	high	strong
D-D7	low	low	low	low	weak
D-D8	high	high	high	high	strong
D-D9	high	low	high	high	strong
D-D10	low	low	low	low	weak
D-D11	high	low	high	high	strong
D-A1	low	low	low	low	weak
D-&	low	low	low	low	weak

Table 9

Faculty M: Interpreting the Strength of Tie

Dyad	Intimacy	Reciprocity	Emotional Intensity	Time	Strength of Tie
M-M1	low	low	low	low	weak
M-M2	low	low	low	low	weak
M-M3	low	low	low	low	weak
M-M4	high	low	high	high	strong
M-M5	low	low	high	high	strong
M-M6	low	high	high	high	strong
M-M7	low	low	high	high	strong
M-M8	low	low	low	low	weak
M-M9	low	low	low	low	weak
M-M10	low	high	high	high	strong
M-M11	high	low	low	low	strong
M-M12	low	low	low	low	weak
M-M13	low	low	low	low	weak
M-@	low	low	low	low	weak
M-A1	low	low	low	low	weak
M-A2	low	low	low	low	weak

Table 10

Faculty N: Interpreting the Strength of Tie

Dyad	Intimacy	Reciprocity	Emotional Intensity	Time	Strength of Tie
N-A1	low	low	high	high	strong
N-A2	low	low	high	high	strong
N-N1	low	low	low	low	weak
N-N2	low	low	low	low	weak
N-N3	low	low	high	low	weak
N-N4	low	low	high	high	strong
N-N6	high	high	high	high	strong
N-N7	high	low	high	low	strong
N-N9	low	low	low	low	weak
N-N10	high	high	high	high	strong
N-N11	high	low	high	high	strong
N-N12	high	high	high	high	strong
N-N13	high	low	low	low	weak
N-N14	high	low	low	low	weak

Table 11

Faculty P: Interpreting the Strength of Tie

Dyad	Intimacy	Reciprocity	Emotional Intensity	Time	Strength of Tie
P-@	low	low	low	low	weak
P-P1	low	low	low	low	weak
P-P2	low	low	low	low	weak
P-P3	high	low	high	high	strong
P-P4	low	high	low	high	strong
P-P5	low	low	low	low	weak
P-P6	high	low	high	low	strong
P-P7	low	low	low	low	weak
P-P8	high	low	high	high	strong
P-P9	low	low	high	high	strong
P-P10	high	high	high	high	strong
P-P11	high	low	high	high	strong
P-&	low	low	low	low	weak

The interpretations of Faculty's relationships with their alters were categorized into strong ties dyads and weak ties dyads and used to create the sociogram in Figure 2. The strong ties dyads includes: D-D5, D-D6, D-D8, D-D9, D-D11, M-M4, M-M5, M-M6, M-M7, M-M10, M-M11, N-N4, N-A1, N-N6, N-N7, N-A2, N-N10, N-N11, N-N12, P-P3, P-P4, P-P6, P-P8, P-P9, P-P10, and P-P11. The weak ties dyads includes: D-D1,

D-D2, D-D3, D-D4, D-D7, D-D10, D-A1, D-&, M-M1, M-M2, M-M3, M-M8, M-M9, M-M11, M-M12, M-M13, M-@, M-A1, M-A2, N-N1, N-N2, N-N3, N-N9, N-N13, N-N14, P-@, P-P1, P-P2, P-P5, P-P7, and P-&.

There was an interesting observation of the phenomenon while I analyzed the strength of ties—time. When I interviewed the participants about their networks during the past six months of time, they generated a list of persons whom they discussed their teaching and whatever they had learned. I found that three participants did not mention the persons from whom they learned the progressive pedagogy. Data from the documentation showed that the National Education Reform had been initiated in 1998 (ONEC, 1999a) which was ten years ago. It was appropriate to assign more flexibility to time boundary of network analysis to mine more useful data of personal relationships during the National Educational Reform.

The Figure 2 and Figure 3 represent the sociograms depicting how the participants tie with others for pedagogy. A box represents a person, black lines connecting each box are the strong ties, and broken lines are weak ties. From the data in Table 8, 9, 10 and 11 the personal relationships can be put together and created sociograms in Figure 2, and Figure 3.

In Figure 2, D, M, N, P stand for the participants—Faculty D, Faculty M, Faculty N, Faculty P. M has many weak ties while N has more strong ties. A1 and A2 are university administrators and have direct relationships with M, N and D, and A2 has indirect connected to Faculty P through P2. The sociogram shows that @, &, A1 and A2 have interrelations among four participants: @, & have all weak ties the participants, while A1, A2 have strong ties with N. From data in Table 8, 9, 10, 11 and 12 & and @

have bridging roles in pedagogy which has created social mobility in P and M to adopt pedagogical progressives (see Table 12), and & had inspired D to teach with active learning approaches and finally D adopted a new teaching approach called competency-based teaching which is a pedagogical progressive.

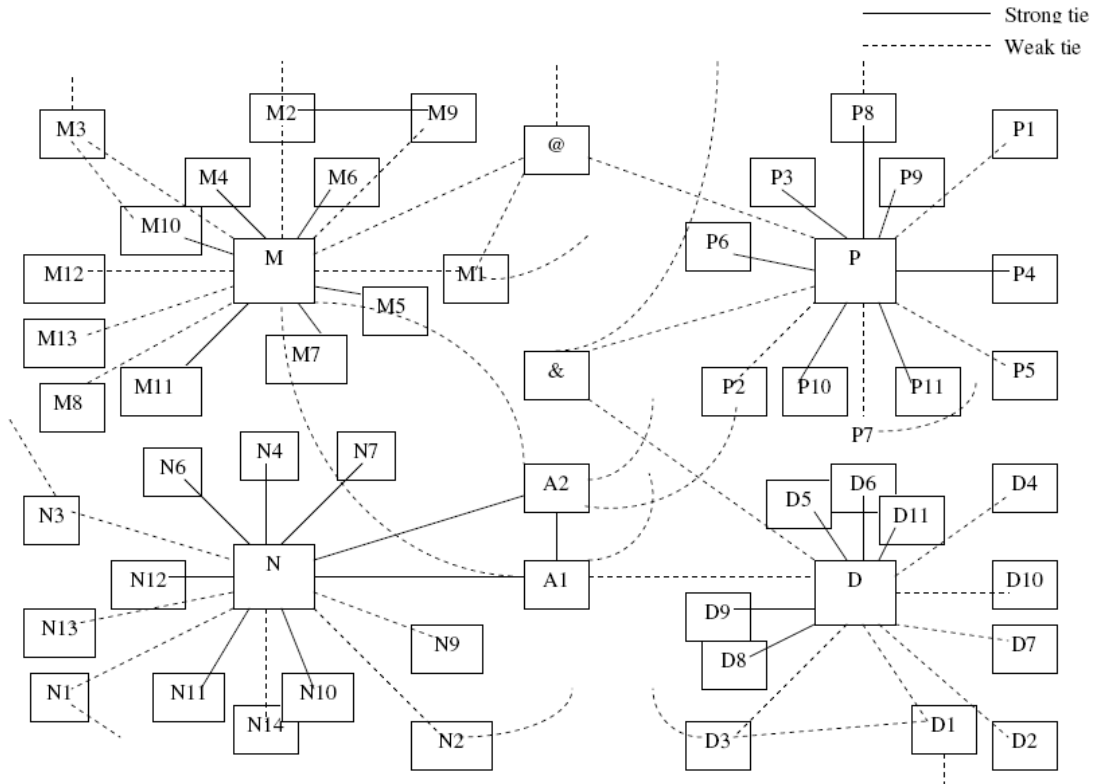


Figure 2. Sociogram depicting Faculty's egocentric networks

In Figure 2, N has no connection with @ and & but she has close ties with A1, and A2. However, she has no influences from these connections. Faculty N was influenced by N1 and N2, and learned reflection teaching by adapting form the information from N2 (see Table 12). The sociogram in Figure 2 also shows the connections of some alters to other circles of society which were not included in this study, namely @, &, D3, M1, M2, N1, N2, N3 and P7. Therefore the lines connected to

whom. The evidence was indispensable for describing how faculty's networks fostered their pedagogy reform.

From the effects of chronological change of ties, I created another sociogram in Figure 3 representing only faculty's current networks. The sociogram in Figure 3 shows personal networks of faculty that looks weaker when there are less bridging ties. The chronicle of pedagogy changes is presented in Table 7 in Chapter IV.

The Effect of Personal Networks

Ties and Faculty's Pedagogical Progressives

When matching the pedagogical progressives that faculty learned with the ties they had, the data informed that weak ties were the indispensable channels faculty access to the information and influences of the pedagogical changes. The data was presented in Table 12.

Data from Table 12 represents the information which the participants accessed from their ties and how the participants responded to the information. The data showed that most of the crucial information of pedagogical progressive that the participants could access came from weak ties.

The strong ties between Faculty N and administrators A1, A2 showed non-influential access of pedagogical information as Faculty N informed a general discussion of teaching and they felt good to be together. The other strong tie N-N4 was the tie when Faculty N learned how to teach from her exemplary teacher N4 when she was a novice teacher years ago. This is another good example of time boundary effect on network analysis. It should have been a *weak tie* when she first met N4 before she developed a closer relationship and strong tie with N4 later on.

Table 12

Faculty's Ties and Influences on Pedagogical Progressives

Dyad	Strength of Tie	Access	Effect
D-D1	weak	Competency-based	Adoption of pedagogical progressive
D-D2	weak	Active learning	Inspiration of learner-centered
D-D3	weak	Indirect tie with D2	Access to the source of pedagogical progressive; Inspiration for change
D-&	weak	Social support	Inspiration for change in pedagogy
M-M2	weak	Educational technology; Indirect tie with M9	Inspiration of e-learning teaching Access to educational technology
M-M3	weak	Educational technology;	Innovation of teaching media
M-@	weak	PBL teaching approach	Adoption of pedagogical progressive
M-A2	weak	E-learning network	Contribution of expertise to PSU
N-N1	weak	Teaching strategies	Adoption of pedagogical progressive
N-N2	weak	Reflection teaching	Inspiration for change in pedagogy
N-N4	strong	How to teach	Exemplary teacher
N-A1	strong	Emotional support	Friendship; general discussion
N-A2	strong	Emotional support	Friendship
P-@	weak	PBL teaching approach	Inspiration for change in pedagogy
P-P7	weak	CAI	Adoption of e-learning
P-&	weak	PBL teaching approach	Adoption of pedagogical progressive
P-P2	weak	Distance learning news	Informed educational News

Note. Data derived from the study's documentation and interviews

I could claim that the data from this study is consistent with Granovetter's (1973) concept of *bridging weak ties*. The concept of a *bridge* according to Granovetter (1973, 1983) is a weak tie that provides the only route along which information or influence can flow from any contact of an individual to any contact of another individual of social networks. In addition, Granovetter (1973) maintains "no strong tie is a bridge" (p. 1364). The data document that the participants' weak ties had influenced them as they reported the effects of weak ties on their pedagogy (see the effects in Table 11 or 12). In addition, the data showed not only direct weak ties but also the access to indirect contacts which provide ideas, influences, or information socially distant from the participants. The dyads—D-D3, M-M2, and M-M3 represented a good match to Granovetter's (1973) idea of indirect contacts, when the connection gave indirect contacts to significant ideas and influences of D2, M9, and M10 consecutively.

However, not all weak ties are bridging ties. Granovetter (1973) divides individual's network into that part made up of strong and nonbridging weak ties, and that of bridging weak ties. The tie P-P2 might be an example of a bridging weak tie when Faculty P said that she was informed the news of distance learning in PSU from P2; however she perceived this as general news. There was another good example from the data in this study when the scholar Prof. Vicharn Panich raised an indispensable point of how the faculty got start to reform at that time (estimated 1987), "The global mainstream of medical education reform flew into Thailand, and every university could perceive equally. However, most of universities either declined to perform (did not desire to act any to anticipate the mainstream) or (they) lack of mechanism to adopt the reform concept." (personal communication, November 4, 2008). The phenomenon was possibly

explained by the *quality of bridging ties*. It might be the difference in quality of bridging ties that was the matter of different effects of weak ties on the individuals who got the contacts. Moreover the quality of bridging weak ties might depend on the characteristics of either ego or alter, or both.

Granovetter (1983) maintains that there is the need for *cognitive flexibility*, and that, “The absence of flexibility may have inhibited organization against urban renewal, since the ability to function in complex voluntary organizations may depend on a habit of mind that permits one to assess the needs, motives, and actions of a great variety of different people simultaneously” (p. 205). The cognitive view of bridging weak ties is supported by Tsoukalas’s (2007) work. Tsoukalas (2007) claims that, “Our measures (attempts to influence a social group’s performance) must, so to speak, be formulated in a ‘language’ that the group is capable of understanding.” (p. 71). The mentioned arguments of Granovetter (1983) and Tsoukalas (2007) were the concern of the quality of egos (or the participants in this study). Moreover Coser (1975 as cited in Granovetter, 1983) helps explain why strong ties do not bridge when he relates the development of intellectual flexibility to individual’s network, and asserts that strong ties may prevent individuals from articulating their roles in relation to the complexities of the outside world.

The data from this study (see Table 11 or 12) revealed how important the effects that the dyadic weak ties of the participants generated on their pedagogical progressives. The effects ranged from access to the pedagogical progressive information to the inspiration and adoption for change in their pedagogy. The phenomenon would be explained by Granovetter’s (1973, 1983) concept of bridging ties. I would claim that the

bridging capability had resided in the participants of this study but with different levels or quality. In other words they possessed *cognitive flexibility*.

As for the characteristics of alter constituting *bridging tie*, Granovetter (1983) suggests that “For those of lower status, weak ties to those of similar low status were not especially useful, whereas those to high-status contacts were.” (p. 209). Granovetter elicits a clue concerning the quality of alter which helps explain why some weak ties did not bridge like the dyad P-P2 in the study, while the other dyad P-P7 yield a significant effect on Faculty P in the same area of interest. It could be interpreted that alter P7 possessed the required information and the characteristic of bridging tie, while alter P2 did not. The other supporting evidence in this study came from the sociograms (Figure 2 and Figure 3).

Comparing the sociogram in Figure 3 with the one in Figure 2, the communication network of current situation obviously undermined the University pedagogy reform and this helped explain why three faculties of health sciences had adopted the learner-centered pedagogy before the National Education Act of 1999 was effective (see Table 11). These examples could be explained by the effects of quality bridging weak ties which were generated to connect all the participants who, by the way, I have claimed in the former paragraph that they possessed *cognitive flexibility*. In addition I could observe the required quality *bridging* role of & and @ as the University administrators at the time before the National Education Act of 1999 (see Figure 3 and Table 7).

In summary, the effects of social networks on the faculty’s pedagogical progressives are apparent. From pieces of evidences found in the data analysis I could

claim that the experience of faculty of how they learned and were influenced to teach by their pedagogical progressives was consistent with Granovetter's (1973, 1983) concept of bridging weak ties. The analysis also revealed the importance of the quality of the constituents of bridging weak ties that made weak ties bridged.

Ties and Organization

I would like to further my analyze the effects of bridging weak ties on the organization which would be another inevitable issue to the study of faculty's social networks. Granovetter's (1973, 1983) concepts of social mobility and social cohesion are the prevailing themes of my analysis.

Wells and Crain (1994) emphasize the necessity of long-term instead of short-term outcomes of social intervention. "We believe that, in order to assess the impact of school desegregation policy on the status attainment of African-American adults, researchers and policymakers need to look beyond the short-term effects" (p. 533). Their long-term expectation is to "break the cycle of racial segregation that leaves blacks and whites worlds apart" (p.533). Social mobility is one of the expected effects which can be used to gauge the effectiveness of the implemented organizational policy and strategies. Granovetter (1973) perceives social mobility and social cohesion as macro phenomenon, and "the analysis is essentially qualitative" (p. 1361). Granovetter's (1973) study elaborates how to relate the strength of personal ties to the mentioned macro phenomenon.

I would articulate the concept of *social mobility* and *social change* in this regard to bolster Granovetter's (1973) concept of relation between personal ties and social mobility. Breiger (1990) connotes the meaning of *social mobility* as "process and

individual or social change” and “sociologists of mobility regard the structure (social space) in which mobility occurs as a reality independent of the extent and direction of mobility” (p. 11). Tsoukalas (2007) helps elaborate the concept of *social mobility* as the situation that “individuals wanting to further their personal and social standing may choose to move from a less attractive group to a more attractive one. Such a move, if successful, confers a more positive social identity.” (p. 64). Breiger (1990) perceives *social mobility* as it could be change in people as they move and the meaning they attribute to social units. In addition, Breiger (1990) elicits the meaning of *social change* in social networks approach as “numerous individual-level changes in connections nonetheless leave both the macropattern of relationships and the aggregated units intact” (p. 7).

In a word, *social mobility* in my perception could be an individual—like a faculty—changing in his/her social identity (here I presume pedagogical progressive) by joining or creating weak ties with a new group leave both the relationships to the faculty (including the department) and university intact.

In the first stage of analysis, I examined the data to find the pattern that participants had established in their new pedagogy and their relationships to their community. I would claim that the pattern of Faculty N and Faculty M experiences were the social mobility patterns in the University.

Faculty N’s endeavor represented an ordinary faculty staff in search of pedagogical progressives in the midst of the National Educational Reform mainstream. She explained how she learned new teaching strategies, “It’s my favorite to travel and attend meeting or conference; I always take note while I listen to the speakers.” Faculty N

learned her most progressive pedagogy by chance when she met Dr. Parker (whom I could claim a *bridging weak tie* for Faculty N) who led her to teach by pedagogical progressive since then. The way she taught, as I had observed her class, showed that she had established the pedagogical progressive. I had collected documents of how she reflected her students' working with patients and what her students reflected when caring for patients convinced me about her pedagogy thoughtfulness. Faculty N experienced social mobility herself without any difficulty from her department and the University.

Faculty M's cognitive flexibility was apparent in his pedagogical progressive endeavor. His movement was likely to manipulate his networks to achieve specific goals as described by Granovetter (1973). Granovetter (1973) asserts, "From the individual's point of view, then, weak ties are an important resource in making possible mobility opportunity." (p. 1373). Faculty M tended to seek the opportunity to access critical information to serve his goals when he created teaching by simulation technique. He revealed how he probed for the knowledge of rubber technology from the visit to a rubber technology exhibition until he met scientists and worked out the way to innovate a simulation model for teaching from rubber. Likewise Faculty M intended to attend M2 class to learn educational technology which was his interest. Faculty M could then created network with M2's friends and later on he could fulfill his goal in producing CAI teaching media. Faculty M was currently in the team of the University administrators for e-learning development.

Both endeavors created consequences of success and conferred a more positive social identity: Faculty N and Faculty M were currently teaching by the new pedagogy and were recognized by the University as exemplary teachers, while Faculty M could

contribute his expertise to the University by joining with the University administrators. As for Faculty N, her strategy in getting new ideas of teaching by attending meetings and conferences maybe more useful to add the strategy of “maintenance of weak ties may well be the most important consequence of such (professional and technical specialties) meetings” (Granovetter, 1973, p. 1373). Faculty N and Faculty M both were active in search of pedagogical progressives and were likely to keep on their social mobility strategy. Their success represented the *bridging capability* in making possible mobility opportunity according to Garnovetter’s (1973) *bridging tie* concept.

I would claim that the University has benefitted from more social mobility of faculty in the long run. Bridging weak ties and cognitive flexibility (Granovetter, 1973, 1983) did help the faculty to access the ideas and influences of pedagogical progressive successfully and attained mobility.

I would further my analysis to a larger unit of analysis—department, faculty, and university. The theoretical lenses of Network Analysis (Granovetter, 1973, 1983) and Perpetuation Theory (Braddock, 1980), and the long-terms effects of social intervention (Wells and Crain, 1994) were used for the analysis.

Department level changes. Faculty P described the situation of her faculty at the time she decided to adopt pedagogical progressive (PBL) “We (the Faculty) undertook a lot of workshop for the whole faculty to make faculty staff known about the concept... However, it was not all the faculty who adopt the concept; there was only one department that successful implemented it—that was the department of Clinical Pharmacy which I was a member. I have been teaching by this method up to now.” Faculty P conferred a more positive social identity for herself and her group in teaching by the new pedagogy

and left others unchanged. She added “I have been teaching by this method up to now. I believe it is a better teaching and more beneficial approach for our students than the traditional one.” Faculty P has succeeded in social mobility of pedagogical change for herself, and she pursued the pedagogical progressive for the whole department. The development of the pedagogy in the department was positive and faculty in the department conferred the new pedagogy. The department organized for the common aim rather easily. My data was limited to explain the happening of the faculty members of the department regarding their ties; however, Faculty P depicted the situation during the time:

I could remember that there was a student-centered concept in academic mainstay at that time and there was a dialogue among academia whether the concept should be applied to our teaching or not. That time I was the Associate Dean for Academic Affairs. We did not really know what the student-centered concept was. We (the Faculty) undertook a lot of workshop for the whole faculty to make faculty staff known about the concept... We had a guest speaker from Khonkaen University (a university in the north-eastern Thailand) also.

In addition, the top administrator showed his concern with faculty’s teaching when Faculty P said that “Prof. Tongchan (the President at that time) helped teach us as much as Dr Anuphap.”

It was possibly due to the numerous personal communications of the pedagogical progressive during that time that helped the faculty members get access to the influence of teaching by student-centered concept. Granovetter (1973) postulates that “the more

local bridges (per person) in a community and the greater degree, the more cohesive the community and the more capable acting in concert” (p. 1376).

The success of the change in pedagogy at the departmental level seemed to inform the reality that the option for change of a group or a department in a university was possible and my analysis the connections of Faculty P to the pedagogical progressive were *bridging weak ties* (Granovetter, 1973, 1983). I would speculate the connections of other members of the department with macrosocial were weak ties as well, even though there were other departments that declined to adopt the pedagogical progressive ideas nonetheless in the same circumstance. My argument about the quality of weak ties may explain the phenomenon. The consequence of the situation was sustainable behavioral change and would be claimed a long-term effect according to Wells and Crain (1994). It is then to claim that the University should keep communicating with faculty in order to help create social cohesion like what happened to the department of Faculty P.

Faculty level changes. Now I will move to another part of analysis. The experience of Faculty D and Faculty M informed the change in Faculty level.

Faculty D had a different experience in her pedagogical reform venture when she prepared for the Faculty to turnaround the whole faculty to confer new competency-based approach in integrative multidisciplinary teaching model in 2001. She decided to propose the competency-based approach as a Faculty agenda when she started the campaign in 2001. Her belief was influenced by D1 when she revealed that her advisor had suggested the convincing strategy for change as all-or-none. She meant that the successful curriculum could not be a half done—all faculty staff had to incorporate. Fortunately the Dean adopted the proposed approach and made it the Faculty policy. The experience of

Faculty D gets along with the *social change* concept proposed by Breiger (1990) and supported by Tsoukalas' (2007) study. Breiger (1990) elicits the meaning of *social change* in social networks approach as “numerous individual-level changes in connections nonetheless leave both the macropattern of relationships and the aggregated units intact” (p. 7). Tsoukalas (2007) proposes that *social change* is a strategic option when the belief structure of the community members perceives the boundaries of social groups within as impermeable.

However, my analysis focused on the relation between the change of community and the strength of personal ties.

Granovetter's (1983) maintains “intimate relations social group that tend to be confined to small and closed social circles, and fragmented. The integration of these groups in the society depends on people's weak ties, not their strong ones, because weak social ties extend beyond intimate circles (Granovetter, 1973)” (p.220) and establish the intergroup connections on which macrosocial integration rests (Blau, 1974 as cited in Granovetter, 1983). Tsoukalas (2007) expands on Granovetter's (1973) Network Theory that the groups which are lack of bridging ties would seem to be harder to approach and penetrate from an outside individual, so it results social inbreeding and would need a *social change* strategy.

Likewise I had claimed in the former section that a department in the University possessed the nature of strong ties social group. Blau (1980, as cited in Granovetter, 1983) notes that, “the problem of integrating large number of diverse specialists in a formal setting is not simple” (p. 222). She points out that the standard solution to this problem like strong mechanisms of control built into a formal hierarchy exhibits forms of

strong ties. She suggests the way to confer organizational integration is that “extensive weak networks can remain viable only when close ties are prohibited (P. 222).

To create an organization integration across the departments seemed to be a challenge according to Granovetter (1983). The faculty used to have an experience of difficulty to implement multidisciplinary cooperative learning model, but there was an uncertainty about the teaching approach and faculty staff were reluctant to change (Faculty of D, 1998); the Faculty report said, “most faculty see the importance of individuals and change is the thing that depends on individual faculty, there might be other alternatives of teaching models” (p. 18).

Faculty D proposed new intergroup relations for teaching in her proposal for the campaign. She explained that:

teaching in the competency-based approach would not go on from one discipline to another discipline like the flow in the traditional teaching approach. There would be an integration of all needed disciplines for one competency statement and faculty from all the disciplines (equivalent to departments) would try to fulfill the objective of the competency statement. Faculty staff had to work across the department boundary.

Her proposal had become part of the Faculty’s policy which was implemented across the organization. The Faculty’s strategy was consistent with social change concept (Breiger, 1990, Tsoukalas, 2007)

Faculty D admitted that the new approach of competency-based could hardly be realistic if the Faculty did not have outside experts to standardize the objectives of the courses, “We need to consolidate our faculty staff’s way of thinking due to they are from

different disciplines with succinct boundary while we need them to teach as a team.” It had taken two years long for this process before she was sure that the new teaching approach was in place. The endeavor tended to create numerous weak ties to the community as suggested by Granovetter’s (1973) principle and helped to bind faculty across the department boundary later on. Granovetter (1973) postulates that “the more local bridges (per person) in a community and the greater degree, the more cohesive the community and the more capable acting in concert” (p. 1376).

There was another success factor according Faculty D, “it was the drive of the National Education Reform that made the competency-based approach possible for the Faculty.” I would presume that at the time (2001) when the Faculty launched the policy for change to competency-based approach the faculty staff might have contacts with the National Education Reform mainstream in somehow at some levels, and so faculty staff had increasing opportunity to access to the information and influences. In other words, the macro circumstance enhanced Faculty’s pedagogy reform.

The *social change* (Breiger, 1990, Tsoukalas, 2007) strategy of Faculty D seemed to work well when the University particularly applauded the endeavor to change (traditional) teaching method throughout the faculty as it had been a long march from 2001 until now (2008)—congratulations (Siribumrungsukha, 2008c). There was no social structure change in Faculty D’s unit analysis because the organizational structure of the Faculty was intact, but it did change the social relationship of faculty staff because there was a new order of working across the department in an integrated way. The evidence from Faculty D’s experience of social change informed a good connection between the

personal bridging tie (Granovetter, 1973, 1983) to the organization integration—it is possible.

There was another example—*social change* experience of Faculty M. However, I admit that the analysis was mainly derived from the documentary data of the Faculty, and the personal communication with the former Faculty’s administrators—but it seems worthwhile and was triangulated.

Behind the success of Faculty of M in pedagogy reform was a long history of faculty’s endeavor. Faculty of M at the time it initiated the pedagogy reform in 1987, there were 12 departments with 199 teaching staff according to the Faculty’s Bulletin (Faculty of M, 1987, December). The pedagogy reform has come to be successful in 2000.

The initiation of pedagogy reform in Faculty of M came from the administrator’s recognition of the faculty’s problem in teaching with the conventional methods. “We called ‘knowledge explosion’.” M1, the associate Dean at that time defined the problem of “___” education at that time, “Our students studied one by one subject. They could not recall their knowledge when they started to study in higher level—pre-clinic and clinic courses, or they cannot integrate their knowledge.” As I mentioned in the former section Prof. Vicharn gave a critical clue of *bridging ties* that brought faculty staff to be aware of the educational change in the social mainstream. The interesting point was how they created the strategy for pedagogy change of such a big faculty. I would come up with three themes when I went through the data from the study.

First, there was an interesting question--“Is there a perpetuation cycle of conventional teaching in the faculty?” Prof. Tada’s reflection of the situation when the

faculty began the reform process might explain: the situation in the faculty at the beginning of reform process that M1 and @ were the persons who put most effort in the midst of various perception of the change; there were faculty who were active, non-active and inertia. He gave a precaution to the active group not to presume that every faculty had to agree before the start—just go on (personal communication, November 12, 2008). Prof. Vicharn admitted the faculty staff has grown up in the old system; doing PBL or something like that was hard for them (personal communication, November 4, 2008). Faculty M also depicted “When PBL was implemented... There was resistance because teachers did not want to change their teaching method.”

I would compare the pattern of faculty’s perpetuation with Braddock’s (1980) Perpetuation Theory. Braddock (1980) referred to Pettigrew’s (1965) suggest that “this reluctance stems not from disapproval, but from an uneasiness and uncertainty about new situations” (p. 179). My claim is the situation of faculty’s reluctance to join the pedagogical progressive is consistent with Braddock’s (1980).

Second, the reform might not be successful if there was no knowledgeable and required-characteristic person to handle the change. I refer this argument to Professor Tongchan’s statement: training doctors how to teach by using the service of experts from schools of education, the outcomes were limited successful—the reasons were that the experts could not understand what doctors really were and could not clearly see how to apply learning sciences to “___” education (Varawit, 2005). Granovetter (1973) emphasized the importance of leader to help the community integration, he argues that “a person trusts a given leader depends heavily on whether there exist intermediary personal contacts who can...assure him that the leader is trustworthy” (p. 1374). He claims that the

person would have direct or indirect contacts with his potential followers and creates trustworthy.

The Deans of the Faculty were outstanding scholar of the University and they keep contributing to the Faculty even though they had resigned. They would be claimed trustworthy leaders for the community and helped the community not fall into fragmentation while implementing the pedagogy reform.

Third, the communication between the Faculty leaders and their members was intensified by numerous meetings at the beginning of the reform (Tada, personal communication, November 12, 2008). The annual report of 1989 (Faculty of M, 1989) informs:

workshops and seminars were organized and experts were invited to address theories and concepts of learning for medical education. Dr. Jacobus M Greep from the Netherlands and Professor Henk Schmidt from the United States were among the experts. In addition, two faculty staff were sent to study at McMaster University in Canada, and Maastricht in the Netherlands. Finally the faculty had stipulated its future aims to redirect the process of medical education to be more problem-based, student-centered, and self-directed with more allowance for integrated multidisciplinary learning.

The strategy not only helped build leader trustworthiness according to Granovetter (1973), but also created social mobility opportunities for faculty staff. The data revealed that the maneuver had later developed new generation scholars like @ and some others who pertained to the indispensable role of *bridging ties* for pedagogical progressive in the University. My observation would support Granovetter's (1973)

suggestion of effective socialization that, “for a community to have many ties which bridge, there must be several distinct ways or contexts in which people may form them” (p. 1375). The workshops, seminars, and staff development were meant to gain effective socialization across the department boundary. My observation is that experts involved in the socialization process are necessary and useful.

Finally, the leaders prepared for a long-term venture of the pedagogy reform. The future aims of the faculty were set up for the new pedagogy to become reality and called for public involvement by seminars. This included not only teaching strategy but also the necessary for the setting to bring up their students to a new and required identity e.g. restructuring of curriculum, improving the quality and efficiency of faculty staff, optimizing staff’s workload, and enhancing medical ethics (Faculty of M, 1989). The pedagogy reform was also enhanced by the “___” Education Unit. Professor Vicharn emphasized that “when we decided to reform “___” education, we think that we need education unit.” He believed in “___” Education Unit, “learning reform at the Faculty can sustain because of the “___” Education Unit and ours seemed to be stronger than other universities at the current time”. Professor Tada also supported this point, he said that “the most importance—whatever to be maintained—would not come from the top management. Top management persons are tended to change when the term is over. The Medical Education Unit can sustain across the regular term of the University’s administration” (Tada, personal communication, November 12, 2008).

The movement was consistent with Wells and Crain’s (1994) emphasis on the long-term effects as a promising strategy to break the cycle of social perpetuation. “The outcome of educational reform we foresee was not our benefit but culture—corporate

culture—that matters” said Professor Vicharn (personal communication, November 4, 2008). The experience of the Faculty gave a good strategy to assure the long-term outcomes and how to anticipate the bureaucratic structural process of administration. The success of the reform was claimed as breaking the cycle of faculty’s conventional teaching perpetuation which is the long-term effects of personal ties.

However, the data showed a cautious sign of the systemic approach of the faculty of Faculty M in the endeavor to sustain the pedagogical progressive. Data from the observation informed mechanical academic relation between the faculty and their students which could affect the indispensable essence of pedagogy—pedagogical intents. My speculation in this reading is that the evolution of pedagogy might get lost in the realm of teleological model of administration which has reined the faculty since the age of National Education Reform. The key weakness of teleological model as addressed by Kezar (2001) is that “overly rational and linear, inability to explain the second order of change (real change) and plasticity of people” (p. 58).

In a word, the faculties of Faculty D and Faculty M experienced the organizational endeavors to break the cycle of faculty’s conventional teaching perpetuation as compared with the social phenomenon of Braddock’ (1980) Perpetuation theory. The macrosocial structure derived from the data before the change in pedagogy nurtured social fragmentation into departments which were highly intensified in one professional discipline and characterized by strong ties within the department. The macrosocial happening was the barrier to achieve their common goals of teaching students which needed interdisciplinary integration. Faculty staff teaching focused on their disciplines and could not organize for organizational integration by their own. The

pattern of both faculties' strategy to solve the problem was meant for the long-term outcome of faculty's social cohesion for their teaching which is supported by the concept of long-term effects of Perpetuation Theory (Braddock, 1980; Wells and Crain, 1994). Social change pattern (Breiger, 1990; Tsoukalas, 2007) was found in both situations: there were collaborations of faculty staff from different departments to fulfil the educational goals of holistic outcomes and pedagogical progressive approach. The strategy consisted of different endeavors; however I found that the data revealed the key success of promoting personal communication across the departments like meetings and seminars, intergroups teaching and creating social mobility opportunities for faculty staff. These successful endeavors had created numerous bridging ties and help fostering pedagogical progressive and faculty integration.

The Interconnection of the University's Strategies and Faculty's Networks

The data from chronological analysis in Table 12 showed the consistency between the University's policy and strategies and the pedagogy change in the micro-level groups and individuals. I could divide the phenomenon into two sessions of pedagogy changes. One is the progression of pedagogy before the National Educational Act, the other is after. The former session of the University movement was influenced by the supporting policy and the pedagogy flourished. The latter session was influenced by the great financial crisis and the new direction of research-oriented policy; faculty's inspiration in pedagogy development was thus undermined. Data from the study showed that there was no initiation of pedagogical progressive during the session of research-oriented policy. The events of success were the long-terms effects which had been created from the former session. The influences of the University's policy in this session were mostly the

National Education Reform compliance policy. The teleological model of change (Kezar, 2001) was the prevailing administrative approach “the activities for creating change are organized by the leader who plan, analyze, and assesses” (p. 35). It was the top-down management.

The strategy for change was predominant scientific management measurements and techniques—TOR, LU and KPI were undertaken including the standard criteria of teaching by the student-centered approach. The data found was consistent with the typology’s belief.

It is appropriate to claim another session of pedagogy development which seems to emerge in the University’s direction to pedagogical progressive when there were at least two evidences informing that pedagogy is now revisited by the top management and is intended to move out of the harbor soon. One was the seminar on the future of pedagogy by top management in 2008, and the other was the declaration of the President putting teaching and learning as the University’s priority agenda (Siribumrungsukha, 2009).

The personal communication of the top management (&) with the faculty created a promising influence on faculty’s pedagogy like the examples of Faculty D, and Faculty P which led to the change in broader community—department, and faculty levels. I would claim that the University’s policy incorporated with bridging ties of top management to faculty staff would generate successful results of change which is consistent with Granovetter’s (1973, 1983) concept of bridging ties and Network Theory.

The Macro-Micro Communication Structure between the University and Faculty

The communication between the University and Faculty was presented in Figure 1 in Chapter IV. The University is still in the age of bureaucratic management with hierarchy of authority. The information from the University administrators came to faculty staff through the administrative hierarchy. Departments were assigned as academic production unit of the University and connected to the University by making a contract. The University predominantly used formal communication and barely personal communication with faculty staff except the recently creating of networking channel for e-learning.

The lack of interpersonal communication in the communication channels between the top management and the micro-level faculty members was the barrier of micro-macro connections according to Perpetuation Theory (Braddock, 1980; Wells & Crain, 1994). Data from the study showed the barriers in formal communication which were important for the organizational cohesion. Wells and Crain (1994) emphasize that “Granovetter’s theory of the impact of weak ties on the diffusion of influence, information, and mobility opportunities to different segments of society, since the most important aspect of realistic expectations is an understanding of the requirements for particular occupations” (p. 541). Through the lenses of Granovetter’s (1973, 1983) Network Theory, I would speculate that the department was the ultimate unit which consisted of a distinct academic discipline would stay fragmented and inbreeding because barely weak ties were created and did the bridging role in the community. This is why there was barely initiation of pedagogical progressives among faculty members during the past decade.

Moreover, the University's strategy possibly created a block of communication in some situations. Faculty D perceived the scientific management such as KPIs would be an obstacle rather than facilitated faculty staff "The University policy in facilitating teaching development is like a square—a rigid curriculum frame for the whole university...I think that the measures are an obstacle rather than a support", incorporated by Faculty N who saw the KPI for teaching would not reflect the pedagogical progressive of faculty.

The data reflect weakness in communication structure between the University and faculty in pedagogy reform.

Summary

The data analysis encompassed the interpretations of the phenomenon including the macrosocial, microsocial, and macro-micro connections of a university society when the National Educational Reform has reined the higher educational institutions. The analysis was conducted through the lenses of Perpetuation Theory (Braddock, 1980; Wells & Crain, 1994) and Network Theory (Granovetter, 1973, 1983).

In the macrosocial, the influences of the National Education Act of 1999 are substantial; there were obligations in timeline for universities to comply, and learner-centered principle is imperative according to the Act. The University was equipped by the top management policy and strategies to anticipate the changing environment. The data showed that the effect of the policy and strategies seemed to emphasize on short-term effects according to the sociological theoretical frame (Wells & Crain, 1994) namely quality evaluation scores, and scientific management measurements like key performance indicators (KPIs).

As for the microsocial, the cycle of faculty perpetuation in traditional pedagogy was found according to Braddock's (1980) Perpetuation Theory. The data from Faculty M and Faculty D were the evidences, and the department community was tended to be predominant strong ties among faculty members. The development of faculty relationships to confer the new identity of pedagogical progressive was true. How faculty learned their pedagogical progressives entirely through their weak ties instead of strong ties. The data showed strong consistency with Granovetter's (1973, 1983) postulations of bridging ties. There were evidences from the study of long-term effects of weak ties: social mobility across the subunits—faculty D, faculty N, Faculty M and Faculty P.

The data revealed the effects of bridging weak ties on the organizational integration. Cognitive flexibility of individuals in the relationships was found as a critical characteristic of bridging weak ties. The experience of how the department of Faculty P developed weak ties to confer social change was not trivial. It was possible among the denial of other departments in the same circumstance. The data was rich enough to relate the pedagogy change at faculty level to the personal networks. The patterns of social change of the faculties of Faculty D and Faculty M to confer the new identity of pedagogical progressive faculties were consistent with the Granovetter's (1973, 1983) Network Theory and the long-term effects of social intervention (Wells & Crain, 1994). The strategy emphasizing developing bridging weak ties and mobility opportunities including building trustworthy leadership by indirect personal contacts with faculty staff generated promising long-term outcomes. However, data showed that the pedagogy evolution process might be undermined by the administration ideology like the teleological approach in the current age of educational reform.

The final part of my analysis was the connections of macrosocial and microsocial in the real situation. The data informed the consistent interrelation between the University policy and the development of pedagogy. More important, the data revealed the weakness of the communication between the University and faculty members since the emphasis was on formal communication and there was a lack of interpersonal networks which are the important sources of bridging weak ties according to Granovetter (1973, 1983).

CHAPTER VI
SUMMARY, CONCLUSIONS, AREAS FOR FURTHER STUDY,
IMPLICATIONS AND RECOMMENDATIONS, AND COMMENTARY

This study was conducted at a multi-campus, government-owned university founded in 1968 with the mission to serve the public as a center of higher education and academic service in the regional area of Thailand. The University comprises 25 faculties with nearly 2000 faculty members in 2006. The prominent situation leading to the study was the changing educational environment which obligated the University to reform teaching and learning processes to confer learner-centered principles after the National Education Acts became effective in 1999. This chapter includes a summary of the study, conclusions, areas of further study, recommendations, implications, and commentary extracted from the data compiled in the study. The essence of this study was aimed to serve as useful knowledge for administrators in higher educational institutions or related settings.

Summary of the Study

This explanatory case study (Yin, 1994, 2003) explored faculty responses to the National Education Act. Naturalistic inquiry (Erlandson, Harris, Skipper, & Allen; Merriam, 1998; Patton, 2002) was used to mine the data to explain the phenomenon.

Purpose of the Study

Through the lenses of Granovetter's (1973, 1983) Network Analysis and Perpetuation Theory (Braddock, 1980), the purpose of this study was to examine the relationships developed among faculty at the University in implementing the new and required pedagogy reform strategies. Specifically, the following was done:

1. Describe the opportunities provided by administrators to facilitate pedagogy reforms;
2. Describe the ways in which faculty engaging in the most progressive pedagogy learned to do so;
3. Analyze these realities through the lens of Network Analysis (Granovetter, 1973, 1983) and Perpetuation Theory (Braddock, 1980);
4. Report other realities that may be revealed;
5. Assess the usefulness of these lenses for explaining the perspectives, and
6. Speculate about the impact of these ties on the future of change in PSU pedagogy.

Data Needs and Sources

The focus of this study was on the relationships among faculty developed during the age of educational reform, their effects on pedagogical progressives of the faculty, and the interrelations between the pedagogy they learned and the University's policy and strategies. The primary data needs pertained to patterns of relationships of faculty who had conducted progressive pedagogy and information of related facilitating factors. The sources of data selected were faculty staff who were teaching by progressive pedagogy methodology, the University's top administrators involving directly in implementing the

policy and strategies, and documentary materials relating to backgrounds and history of pedagogy reform in the University.

Data Collection

The data collection consisted of three strategies: documentation, interviews, and direct observations. Faculty participants were recruited by their background information. All the participants were asked for their consent to participate in the study. Direct observations of individual faculty staff were conducted to gain insights into their pedagogical progressives. Documentation was undertaken articulating all the dimensions of the University's backgrounds and history involving pedagogy reform during the age of the National Educational Reform. Personal communications with the former administrators were conducted to clarify some data in the documents. Interviews with the University's administrators were conducted to gather information about the University's strategies for reform. Once the data from direct observations and documentation was collected, I then conducted interviews with the faculty. Protocol questions and data from direct observations and documentation helped conduct the interviews with the participants. Questions to obtain network data according to Granovetter's (1973) four characteristics of ties were formulated in addition to the protocol questions, and were used in the interviews with faculty. Informal conversational method was used for flexibility to probe for the depth of information. Follow up interviews were conducted as well to fill up some missing information. All the data from interviews was recorded, transcribed, and sent to the informant for member checks. Then the data was organized to allow for consistent analysis.

Data Organization and Presentation

All data collected from direct observations, documentation, and interviews was combined and organized into tables. Manipulations of data were undertaken as suggested by Yin (2003). A flowchart of the University's communication with faculty, and chronicle of pedagogy evolution was derived from the documentary and interview data. Sociograms of faculty's networks were created from the interviews with the faculty staff, and the table of the consistency between faculty's relationships and the effects was created from the documentary data and interviews. Development of themes and data organization helped ease data analysis.

Data Analysis

The primary method of data analysis was the pattern matching as suggested by Yin (1984, 2003). Granovetter's (1973, 1983) Network Theory, and Perpetuation Theory and long-term effects (Braddock, 1980; Wells & Crain, 1994) were used as theoretical propositions for describing the patterns of the pedagogy reform and the faculty's interpersonal relationships, and the connections of macrosocial and microsocial when the policy and strategies were implemented.

The findings emerged from data analysis; however, my subjectivity played a part of the interpretation of data. Therefore my endeavor was to minimize the bias, triangulation and my advisor's debriefing helped to increase the credibility of the study.

Summary of Findings

Data analysis revealed evidence to support the University's policy and strategies when implementing to facilitate the pedagogy reforms among the faculty staff consistent

with the theoretical propositions used in the study. Major findings are addressed by the guide of the study purpose.

Description of Facilitating Factors by the University to Pedagogy Reform

Data from the study revealed consistency between the University's policy and the facilitating factors provided to anticipate the changing environment of the National Education Reform. The changing environment of global competition and the faculty's weak research capability led university administrators to adopt the policy directed to research-oriented universities, leaving the defensive policy to comply with the National Education Act of 1999 in the time limit during the past decade.

The prominent factors facilitating teaching and learning reforms found in the data were consistent with the short-term expected effects of Wells and Crain's (1994) study of long-term effects of school desegregation policy. The expected outcomes of higher evaluation scores—KPIs, and TOR were perceived as short-term effects. The evidence of lack of faculty's participating in the training and retraining for new pedagogy was found. The chronological analysis revealed the evidence of the reluctance in the faculty staff to learn pedagogical progressives during the relevant time period; whereas the pedagogical progressives had been flourishing in the times before the National Educational Reform. These data revealed the weakness of facilitating factors. The impact of few long-term measures for pedagogy reform in the current University's policy and strategies would undermine the University's pedagogy reform process for years.

Perpetuation of more traditional faculty pedagogies was also found in the study evidenced from the experience of the participants. The patterns of perpetuation match with the definition of Pettigrew (1965 as cited in Braddock, 1980)—reluctance.

Reluctance stems not from disapproval, but from an uneasiness and uncertainty about the new situation. Data revealed the power of personal relationships of the faculty that inspired the faculty to learn and conferred pedagogical progressives. Strategies to create numerous weak ties and building trustworthy leaders among faculty generated positive effects on facilitating faculty to change their pedagogy. Therefore there is an urgent need of long-term strategies especially based on sociological changes for the University.

Description of Faculty Engaging in Progressive Pedagogy

The literature review and direct observations of how faculty taught in the real situation informed at least two dimensions of findings: a broad view of progressive pedagogy and a closer view.

Broad view. Faculty perceived student-centered approach as a model of teaching like PBL, team teaching, competency-based curriculum, or reflection. Some disagreeable teaching methods such as CAI, virtual classroom, student projects were counted as student-centered approaches by the University. The finding in this study was the existence of different perspectives of student-centered approach among faculty in the University.

Closer view. Data from the direct observations revealed the different levels of student-centered pedagogy among the participants compared with Cuban's (1993) criteria. Cuban's (1993) list of student-centered was applied for direct observation in this study (Appendix B). Cuban (1993) asserts, "I do not assume that actual changes in practice moved solely from teacher- to student-centered; traffic flowed both ways regardless of reformer's intentions. Individual teacher stopped at various places along the way" (p. 4). Moreover the relationship of faculty and students, which is the essential

media of pedagogy, was conducted in different ways by the faculty: mother-child relation, and mechanical academic relation.

From the study, the finding implied a concern about the lack of personal relations between faculty and students in systemic student-centered approaches, whereas the consequences of appropriate personal relations were reflected by students as pedagogical thoughtfulness of the faculty. van Manen (2002) asserts, “We need to realize that pedagogical intents are not simply intellectual convictions or curriculum plans and learning objectives that we have committed to paper. Pedagogical intents are involved in all our active and reflective distinctions between what is good and what is not good for a child” (p. 19). The finding evidenced the existence of van Manen’s (2002) notion of pedagogical relation in faculty, and a caution in the ongoing systemic student-centered practice.

Consistency of the Findings and the Theoretical Proposition

In this case, data from the study revealed three major themes of findings:

The usefulness of weak ties in accessing information and influences from distant sources. Data was analyzed through the lens of Granovetter’s (1973) Network Theory to determine the strength of ties in faculty’s interpersonal relationships. Four elements of ties (time, emotional intensity, intimacy, and reciprocity as suggested by Granovetter (1973) were used to compare with the characteristics of faculty’s personal relations. The weak and strong ties were successfully identified, categorized and used to create sociograms. Matching of the information and influences learned by the participants with the ties through which the faculty accessed them informed that weak ties were the channels which faculty could access the information and influences of pedagogical

progressives from the distance sources, whereas strong ties were used for emotional support. The finding was convergent across four subunits of this study. The evidence could be strongly claimed the consistency with Granovetter's (1973) postulation—no strong tie is a bridge; a bridge is indispensable since it provides the only route along which information or influence can flow from any contact of an individual to any contact of another individual's social networks.

Data also revealed that whether or not weak ties could bridge depended on the quality or characteristics of not only ego, but also alter of the dyad. The evidence was that some pairs of weak ties were not a good bridge whereas others were —P-P7 in comparison with P-P2 and M-A2 in comparison with D-A1. Granovetter (1973) maintains that not all weak ties are bridging ties, and emphasizes the need of cognitive flexibility of ego, noting that “the absence of flexibility may have inhibited organization against urban renewal, since the ability to function in complex voluntary organizations may depend on a habit of mind that permits one to assess the needs, motives, and actions of a great variety of different people simultaneously” (Granovetter, 1983, p. 205). Likewise, Tsoukalas (2007) explains that the language that the group is important for understanding. Conversely, the characteristics of alters matters to bridging ties as well. Granovetter (1983) suggests that “For those of lower status, weak ties to those of similar low status were not especially useful, whereas those to high-status contacts were.” (p. 209). In the study experts or knowledgeable persons were very influential and were used effectively across the four subunits.

The cognitive flexibility concept led to another finding—*manipulation of weak ties strategy*. The bridging ability of weak ties was linked directly to the cognitive

flexibility of ego. Two subunits—Faculty N and Faculty M—showed evidence of the effectiveness of manipulation of weak ties strategy. The impact of this strategy might help the University to create pedagogical progressives which is critical for the organization to increase the pace of reform. From a comparison among the experiences of bridging weak ties in four subunits, my observation of bridging ability of weak ties was that there might not be an all-or-none characteristic, but proportional to cognitive flexibility. Faculty M showed higher cognitive ability and could have more bridging capability and bridging ties.

The long-term effects of weak ties. Data showed strong evidence across the subunits of this study that social mobility occurred and was related to influences and information through their weak ties—inspiration to adopt the pedagogical progressives, and critical knowledge was learned through these weak ties. The pedagogical progressives were engaged by the participants with sustainability over the decade. The evidence helps make an argument of generalization to the theoretical proposition. The usefulness of Granovetter's (1973) Network Theory for the long-term effect was thus evidenced.

The effects and influences of pedagogical progressives had created consequences to their groups at department and faculty levels. The subunit Faculty P showed the strong evidence of how cognitive flexibility worked in the real situation. Data showed that her department was the only faculty's academic unit among many departments in the same situation that adopted the pedagogical progressive and could sustain across the session of the University's direction. There were two subunits—Faculty D, and Faculty M—that experienced a new social environment called multidisciplinary integrative teaching.

There was obligation for every department to incorporate this new approach of teaching. Both were successfully implemented but over a long time instead of short immediate turnaround. The strategy used for change was social interventions to create a number of mobility opportunities for faculty staff across department boundaries and from outside the University especially experts in progressive pedagogy. Faculty's policy for pedagogy reform was in place in an appropriate time. In the subunit Faculty M, data showed the trustworthy leaders in pedagogy reform process helped achieve the change finally. This is a strong claim that subunits Faculty D and Faculty M experienced the organizational endeavors to break the cycle of faculty's conventional teaching perpetuation as compared with the social phenomenon of Braddock' (1980) Perpetuation theory. The experience of successful pedagogy reform in both subunits informed the usefulness of long-term strategy for the pedagogy reform and rather based on sociological theoretical frame.

The connections of microsocial and macrosocial. The University represented the macrosocial while faculty staff or departments represented the microsocial. Data from two subunits evidenced how organizational integration could occur. The common strategy was to create personal bridges over the departments by intensified seminars and the use of external experts. The long-term strategy was the establishment of policy, professional education units, and resource persons to sustain the reform process.

In a word, the findings in this study are appropriate for use to explain what happened in this higher educational setting during the educational reform. Faculty changed because they had personal relationships which bridged and brought about information and influences and mobility opportunities. The findings also give a clue for a

university to make a policy and strategy on the ground of sociological theory to reform faculty's pedagogy effectively.

Network Analysis and Perpetuation Theory

Clearly, the study findings have evidenced the usefulness of the theoretical frame of Perpetuation Theory (Braddock, 1980; Wells & Crain, 1994) and Network Theory (Granovetter, 1973, 1983) in explaining the phenomenon when a university encounters the need of social change to achieve pedagogical progressives. Network analysis gave a possible way to make faculty's personal relationships visible, and by the sociograms we can see faculty's connections. Granovetter's (1973, 1983) Network Analysis was useful in determining the strength of ties that existed in personal networks. His Strength of Weak Ties Theory opened up new knowledge explaining other ways to tackle social inertia when the university needed for change to contribute more successfully to society. His postulation of the importance of weak ties was supported by this study. A remarkable finding was the characteristics constituting bridging tie that were needed to concern of both the cognitive flexibility of faculty and the necessary of knowledgeable people to take the bridging role.

Perpetuation Theory (Braddock, 1980) led the way to explore social inertia in the setting and the connection to social intervention, whereas Wells and Crain's (1994) long-term perspective of school desegregation helps connect Perpetuation Theory (Braddock, 1980) to Strength of Weak Ties Theory (Granovetter, 1973, 1983), making a useful application of the sociological theories. A number of useful findings emerged through the theoretical perspective of Braddock (1980) and Wells and Crain (1994). The major finding was the effectiveness of long-term sociological oriented policy over the short-

term teleological approach in the pedagogy reform arena. The finding showed a cautious barrier of the teleological approach which created weakness in the formal communication and the depreciation of pedagogical relations. This finding is not trivial and needs to be revisited by the University's administrators. Suggested strategies for social mobility included manipulation of weak ties in the individual level, and in macrosocial, setting up social circumstance that created numerous opportunities for mobility in all levels, including supporting policy for organizational integration were remarkably effective. The combination of both theories helped identify that a department in the university represented microintegration of prevailing strong ties that was likely to form inbreeding relationships and social inertia.

Other Realities from the Study

Obviously the study has reflected the indispensable roles of the microsocial in the success of pedagogy reforms. From my experience in this study, the venture of naturalistic inquiry provided opportunities to visit a few extra clues. In this manner, an important additional finding was the dynamic in the strength of ties. Data from the study revealed that a time boundary shift unfolded the change in the strength of tie in both directions—strong to weak, and weak to strong—and that there could be no connection. The dyads D-D11, D-&, D-D2, P-& showed no connection in the current situation, N-N3 represented the shift from strong to weak, and M-M10 from weak to strong ties. While I collected the data for determining the strength of tie, I found the difficulties to define the characteristics of ties and the influences of the contacts without the data of “when.” It was necessary to shift the time boundary backward for years to mine more useful data since the educational reform took years to achieve.

In summary, the findings described the opportunities that provided by administrators to facilitate faculty's pedagogy reforms in the way that emphasizing on short-term instead of long-term outcomes, and evidenced the consistency between the university's policy and the facilitating measures. The findings strongly depicted the effectiveness of the strategies to create numerous weak ties and trustworthy leaders in facilitating faculty to change their pedagogy. In addition, the data was able to describe the ways in which faculty engaging in the most progressive pedagogy learned to do so.

The findings showed the different perceptions of student-centered approach among the faculty and administrators, and the possible lack of personal relations between faculty and students in the systemic student-centered approach which is the critical concern of van Manen (2002) in educational discourses. The findings also evidenced how powerful the theoretical lenses of Network Analysis (Granovetter, 1973, 1983) and Perpetuation Theory (Braddock, 1980) were in explaining the phenomenon of how faculty accessed the critical information and influences from distant sources that led to their change to confer progressive pedagogy. The indispensable role of bridging ties in connecting macrosocial and microsocal of faculty was apparent in this study and helped increase faculty social mobility.

The findings lead to the possible speculation about the impact of personal networks on the future change in the university's pedagogy. The university's strategies for creating numerous weak ties and manipulating of these ties to bridge would be appreciative for faculty's social mobility opportunities. Conversely, short-term overemphasis would possibly undermine the evolution of faculty progressive pedagogy. Other realities were also revealed in this study. The dynamic characteristic of the strength

of ties was found to be both directions from weak to strong and vice versa. The importance of time span when studying the strength of ties was also evidenced and would be useful for further studies of faculty personal relationships. Determining the duration of time for study is thus recommended.

Conclusions

Multiple conclusions can be drawn from the study findings. In terms of theory, clearly Granovetter's (1973, 1983) Network Theory and Braddock's (1980) Perpetuation Theory are helpful lenses through which to view the invisible policy implementation process and progress in reform. I can also conclude that the influences of strong and weak ties are helpful in understanding why things stay the same and why other things change.

Granovetter's (1973, 1983) Network Theory is a powerful tool to use to unfold the invisible web of personal relationships among faculty and the macrosocial of pedagogy. More important, this theory is exceptionally useful in understanding the influence of "bridging weak ties". The theory when used alongside with Perpetuation Theory (Braddock, 1980) as evidenced by Wells and Crain (1994) provides an additional useful lens to explain the ongoing social phenomenon of macro-micro connections in this study. The patterns of how faculty learned and conferred their pedagogical progressives can be explained by the theories. This leads to further uses of these theories in the future studies of the higher education settings.

The finding of bridging weak ties and their influences on the faculty pedagogy reform in Thai context is indispensable and worth to expand not only to create an effective strategy for social reform, but also to explain the social phenomenon of why and

why not Thai individuals adapt themselves to the changing macrosocial environment, and how personal networks can generate influences on them.

An exceptional finding from this study is the meaning of short and long term policy in educational institutions. The study has shown that in the real situation there is possibility that the macrosocial and microsocial environment can pave the way to emphasize on short-term outcomes. The concept of long-term effect from Wells and Crain's (1994) study gives an important clue to understand the meaning of short-term and long-term effects and why it is important to mind for long-term outcomes when we formulate a policy for social reforms. Certainly the social mobility and socioeconomic structure of faculty are the desired and sustainable long-term outcomes.

This study intends to explain the social phenomenon when the University is in the ongoing National Educational Reform that was stimulated by the National Educational Act of 1999 after the country had been badly hit by the great economic crisis. The situation is new, dynamic and challenging. The needs of new knowledge for postmodern to anticipate the new dynamic environment is undeniable, and was reflected in the long range plan on higher education written by the Commission on High Education (2008), "Profound changes in family and living nature, studying and learning, and risks are indicative of changes and movement towards the Post Modern/Post Industrial world." (p. 6), "Socialization platforms need to be created within and outside of universities". The nature of naturalistic inquiry is the approach for postmodern finding of multiple realities. I would not intend to refer the study approach to the expectation of the Commission on Higher Education; I would rather to deliberate my experience in doing this study that naturalistic inquiry did help to find new knowledge of multiple realities in

Thai context of how and why the pedagogy reform occurred. Likewise Lincoln and Guba (1985) say that case study report mode is preferable “because it is more adapted to a description of the multiple realities encountered at any given site” (p. 41).

Still there is an emerging caution in this study of faculty’s pedagogy in systemic approach of university administration. It seems the loss of pedagogy relation in the classroom life. Likewise Max van Manen (2002), when he articulates the term *pedagogy* in his book he begins with remarkable words

I will adopt the word “pedagogy” here to avoid and possibly correct two dangers of the contemporary discourse in education: (1) to restore a forgotten or absent relation between adults and children, and (2) to remove some of the barriers that prevent “educational” thought from being truly educational. (p. 30).

This maybe the answer to the question of “why to study faculty’s pedagogy”.

Areas for Further Study

In this study, there was an important concern of the loss of pedagogical relations in the systemic student-centered approach. There is a need to explore more of the university organization to learn more about this observation. The finding is crucial since it seems to repeat another perpetuation cycle of faculty, self-perpetuation. My speculation was that faculty who taught by the student-centered techniques as assigned by the system would just do as the guideline said but lack intentional interactions. Pedagogy might not happen in the systemic approach teaching because of lack of personal relations.

The teleological mode of administration seemed to weigh on the pedagogy evolution in the university since the data showed the prominent administrative measures of the approach in the system. More study to explore the consequences in foresight of this

approach on the pedagogy reform is useful and will make a strong argument to the administration for its management of reform at the university. In addition, the study of the impact of this mode of administration on other aspects, such as the change of faculty's research capability, is also interesting and meaningful.

The usefulness of psychology concerning the effects of ties is an interesting area to expand since the concept can help describe the effects of bridging and characteristics individuals and groups which is crucial for applying in the real life situation.

The study was conducted in the way of focusing on the groups of faculty who were outstanding in their teaching practice. They represent only a part of the whole community of faculty which consists of faculty both who teach by the traditional and student-centered approach. The whole network structure of the University would be worthy of further study. The picture of the whole network structure helps monitor and assess an appropriate strategy to strengthen the University's social capital.

In terms of "how" to manage the pedagogy reform effectively might need a more comprehensive strategy to make over the situation and drive the reform effectively. The whole social network of the University, roles of administrators in social networks, and cultural and psychological aspects relating to individuals and groups could be interesting areas for further study.

Implications and Recommendations

This study has added to theory, research and practice in multiple ways.

Theory

Perpetuation Theory (Braddock, 1980; Wells & Crain, 1994) and Network Analysis (Granovetter, 1973, 1983) are powerful in examining the relationships

developed among faculty at the University while implementing the pedagogy reform policy and strategies. The usefulness of the theories provided not only the patterns of social phenomenon, but also a tool for personal relationships analysis. This led to learning why the anomaly occurred in the real situation, and how to find the way out. My intention is not to overlook the initiation of a new organizational policy or strategy. I think that the theoretical frame is even more useful since it helps create one that is more comprehensive or effective strategy. Hence, the theoretical frame can be applied in studying an organization while monitoring and creating policy and strategies for changes.

Research

The study used naturalistic inquiry methodology to discover the realities of life in this setting experiencing reform. The flexibility of the methodology provided opportunities to collect more comprehensive data to explain the phenomenon. Because of the pattern matching strategy (Yin, 2003), I was able to add evidence in support of the theoretical proposition, and say that a perpetuation cycle of individuals can occur in society including a higher educational institution when a new way of practice comes to the setting. The study helps open up new areas to explore and gives indispensable clues for practice.

Practice

The remarkable point of view for practice which emerged from this study is the necessity of bridging roles in the pedagogy reform process, and the support of administrative tools—policy and strategies. In administration, the shift from “who rules the game” to “who owns the change” is advisable, since the ideology of pedagogy is something inside faculty’s body and mind as suggested and emphasized by van Manen

(1994, 2002), “The classroom life of teachers is difficult especially because it is virtuelike, improvisational, and pedagogical” (1994, p. 139). Administrative actions should support faculty to own the change of their pedagogy.

To create an administrative strategy based on the theoretical lenses is appropriate since it will make the application more substantial. In my opinion, there are two options for administration.

Option 1: the University sets up a *Bridging Body* (BB). BB must consist of experts in education and sociology, and be responsible for bridging roles including access to internal and external resource persons in different professional disciplines, personal connections to department-levels of the University, and activities concerning sociology and psychology. The daily operation of BB is performing bridging roles with faculty staff in departments as an advisor, monitor search for local bridging ties (maybe a professional education unit of faculty) and the needs of training and problem solving, and feed information for policy makers that will begin required faculty networks. Then the University will perform consistent socializing events during the years to communicate with faculty. This option intends to provide mobility opportunities for faculty staff.

Option 2: the University sets up BB as well, but the component includes a university’ administrator in addition. The operation of this option is more proactive. BB is an expert body in facilitating the pedagogy comprehensive change for a faculty that requests it. In either option, the University will support the budget and policy for change.

Commentary

“I have focused on the qualitative case study because most case studies in education approach a problem of practice from a holistic perspective. That is,

investigators use a case study design in order to gain in-dept understanding of the situation and its meaning for those involved. The interest is in process rather than outcomes, in context rather than a specific variable, in discovery rather than confirmation. Such insights into aspects of educational practice can have a direct influence on policy, practice, and future research.” –Merriam (1988, p. xii)

Because the country needs education which serves the need of the nation, because the University where I work for is in the changing environment with threats of external factors while growing needs for the pedagogy reform knocks at the door, and because there is no cook book for change, the need for new knowledge is vital. In the age in which I am working, there are few naturalistic inquiry studies in my setting or in the broader context of the country. The value of this study should be those three dimensions as mentioned by Merriam (1988): policy, practice, and future research.

The difficulties in doing this study happened along the way. One of the most difficult was to craft the study proposal form the early beginning. My topic was gained by the class activity of the Cohort program when we discussed the problems of our setting. However, I really appreciate how my advisor assisted and supported—with patience and skillful, mindful, and thoughtful interactions—which I will always recognize and do it the same way to my students.

While conducting my study, ongoing changes were occurring at the university and several new documents were generated during my data collection. The term *pedagogy* was revisited by the University administrators, and the university announced teaching development as the University’s agenda. The University has shown an early turnaround of the policy for academic affairs—networking. Because the policy had focused on the e-

learning which would be a big area to investigate, I found it hard to achieve the data collection in such a limited amount of time. Nonetheless, I had a very good opportunity as an administrator to be in the situation and was able to gain insights of these happening in several occasions. However, it made me finish my writing late especially Chapter IV.

In my opinion, it is the benefit to do case study research in my working setting as mentioned by Merriam (1988). I got a very good suggestion from the former University's administrator who helped connect the events I found in documentation when we discussed the history of the University. Because of this I could go and collected more data in some points to triangulate including contacts and personal communications with the scholars. This happening helped me to gain more insight to the situation.

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APPENDICES

Appendix A

Institutional Review Board of Oklahoma State University Approvals

Oklahoma State University Institutional Review Board

Date: Tuesday, June 10, 2008
IRB Application No ED0891
Proposal Title: Faculty Social Networks Fostering Pegagogy Reform: A Case Study From Prince of Songkla University

Reviewed and Processed as: Exempt

Status Recommended by Reviewer(s): Approved Protocol Expires: 6/9/2009

Principal Investigator(s):

Korn Somlertlumvanich	Adrienne Hyle
325 Willard	325D Willard
Stillwater, OK 74078	Stillwater, OK 74078

The IRB application referenced above has been approved. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.


The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval.
2. Submit a request for continuation if the study extends beyond the approval period of one calendar year. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of this research; and
4. Notify the IRB office in writing when your research project is complete.

Please note that approved protocols are subject to monitoring by the IRB and that the IRB office has the authority to inspect research records associated with this protocol at any time. If you have questions about the IRB procedures or need any assistance from the Board, please contact Beth McTernan in 219 Cordell North (phone: 405-744-5700, beth.mcternan@okstate.edu).

Sincerely,



Shelia Kennison, Chair
Institutional Review Board



**FACULTY CONSENT TO PARTICIPATE IN A RESEARCH STUDY
OKLAHOMA STATE UNIVERSITY**

PROJECT TITLE: Faculty Social Network Fostering Pedagogy Reform: A Case Study from Prince of Songkla University

INVESTIGATOR: Korn Somlertlumvanich (Graduate student at Oklahoma State University)

PURPOSE: This study, which is research conducted for a student dissertation, is being conducted through Oklahoma State University. The purpose is to examine the relationships developed among faculty at PSU in implementing the new and required pedagogy reform strategies through the lenses of Granovetter's (1973, 1983) Network Analysis and Perpetuation Theory (Braddock, 1980).

PROCEDURES: To participate in this study, the following procedures will be required:

1. Direct observation of the participant classroom activities during teaching. The researcher will be in the class and take a record all through the class.
2. Interview with the participant. This is an in-person interview. The questions regarding how do the participants teach? how do they learn to teach? and what are their social networks and attributes of networks?, and demographic information will be asked. The interview is designed to last approximately 1 to 2 hours.
3. The interviews will be in a location agreeable to both parties. It is hoped that this interview can be on campus in the Office of the President.
4. Follow-up interview will also be used to clarify any comments.

RISKS OF PARTICIPATION: There are no risks associated with this study, including stress, psychological, social, physical, or legal risk which are greater, considering probability and magnitude, than those ordinarily encountered in daily life. If, however, you begin to experience discomfort or stress in this project, you may end your participation at any time.

BENEFITS OF PARTICIPATION: The main benefit of this study will help developing teachers' networks and teaching practice in Thai higher education. You may gain an appreciation and understanding of how research is conducted.

CONFIDENTIALITY: All information about you will be kept confidential and will not be released. Research records will be stored securely in a home office of the primary researcher and only researchers and individuals responsible for research oversight will have access to the records. Prior to presentation, all data will be encoded and pseudonym will be used in presentation of the data. Results from this study may be presented at professional meetings or in publications. It is possible that the consent process and data collection will be observed by research oversight staff responsible for safeguarding the rights and wellbeing of people who participate in research. Data will be kept for one year following completion of the study and then it will be destroyed.

COMPENSATION: There is not any compensation for participation in this study.

CONTACTS: You may contact any of the researchers at the following addresses and phone numbers: Korn Somlertlumvanich, Department of Pharmacy Administration, Faculty of Pharmaceutical Science, Prince of Songkla University, (66) 74-428167 or korn.s@psu.ac.th or

Dr Adrienne E. Hyle, Advisor, 325D Willard Hall, OSU, Stillwater, OK 74075, (405) 744-9893 or adrienne.hyle@okstate.edu. If you have questions about your rights as a research volunteer, you may contact Dr. Shelia Kennison, IRB Chair, 219 Cordell North, Stillwater, OK 74078, 405-744-1676 or irb@okstate.edu

PARTICIPANT RIGHTS: Your participation in this research is voluntary. There is no penalty for refusal to participate, and that you are free to withdraw your consent and participation in this project at any time, without penalty.

CONSENT DOCUMENTATION: I have been fully informed about the procedures listed here. I am aware of what I will be asked to do and the benefits of my participation. I also understand the following statements:

I affirm that I am 18 years of age or older.

I have read and fully understand this consent form. I sign it freely and voluntarily. A copy of this form will be given to me. I hereby give permission for my participation in the study.

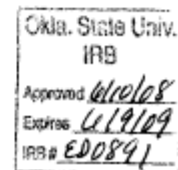
Signature of Participant

Date

I certify that I have personally explained this document before requesting that the participant sign it.

Signature of Researcher

Date





ใบยินยอมของอาจารย์ในการเข้าร่วมการศึกษาวิจัย
FACULTY CONSENT TO PARTICIPATE IN A RESEARCH STUDY
OKLAHOMA STATE UNIVERSITY

หัวข้อโครงการวิจัย (PROJECT TITLE):

เครือข่ายทางสังคมของอาจารย์ที่สนับสนุนการปฏิรูปการสอน:
กรณีศึกษาจาก มหาวิทยาลัยสงขลานครินทร์ (Faculty Social
Network Fostering Pedagogy Reform: A Case Study from Prince
of Songkla University)

ผู้วิจัย (INVESTIGATOR): กร ศรเลิศล้ำวาณิช
(นักศึกษาระดับปริญญาเอก Oklahoma State University)

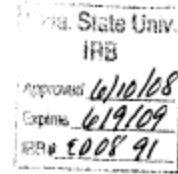
วัตถุประสงค์การวิจัย (PURPOSE):

การศึกษานี้ถือเป็นการวิจัยที่เป็นส่วนหนึ่งของวิทยานิพนธ์ปริญญา
เอกที่กระทำผ่านทาง Oklahoma State University
โดยมีวัตถุประสงค์เพื่อตรวจสอบความสัมพันธ์ที่พัฒนาขึ้นของอาจารย์
ที่มหาวิทยาลัยสงขลานครินทร์ตามกลยุทธ์การนำการสอนที่เป็นที่
ต้องการไปสู่การปฏิบัติ ทั้งนี้โดยศึกษาผ่านมุมมองตามทฤษฎี Network
Analysis ของ Granovetter (1973, 1983) และ ทฤษฎี Perpetuation
ของ Braddock (1980)

ระเบียบวิธีปฏิบัติ (PROCEDURES):

การศึกษานี้มีวิธีปฏิบัติที่จำเป็นต่อผู้ที่เข้าร่วมเป็นส่วนหนึ่งของการ
ศึกษานี้ดังต่อไปนี้

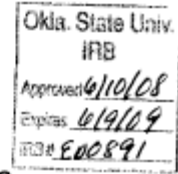
1. การสังเกตโดยตรง (Direct observation)
เกี่ยวกับกิจกรรมในห้องเรียนระหว่างการสอนของผู้เข้าร่วมวิจัย
ผู้วิจัยจะอยู่ในห้องเรียนตลอดเวลาเพื่อเก็บบันทึก
2. การสัมภาษณ์ผู้เข้าร่วมวิจัย
การสัมภาษณ์เป็นการสัมภาษณ์ส่วนบุคคล
คำถามที่ใช้ถามจะเป็นคำถามที่เกี่ยวกับวิธีการสอนของผู้เข้าร่วม



- มการวิจัยว่าเป็นอย่างไร
ผู้เข้าร่วมการวิจัยเรียนรู้ที่จะสอนได้อย่างไร และ
เครือข่ายทางสังคม (social networks)
และคุณสมบัติของเครือข่ายของผู้เข้าร่วมการวิจัย
ตลอดจนข้อมูลระเบียบประวัติของผู้เข้าร่วมการวิจัย
การสัมภาษณ์จะใช้เวลาประมาณ 1 ถึง 2 ชั่วโมง
3. การสัมภาษณ์จะกระทำในสถานที่ที่เป็นที่ยอมรับของทั้งสองฝ่าย อาจจะเป็นที่สำนักงานอธิการบดีของมหาวิทยาลัย
 4. การสัมภาษณ์ติดตาม
อาจจะกระทำเพื่อให้เกิดความกระจำงในทุกระเด็น

ความเสี่ยงในการเข้าร่วมการศึกษาคั้งนี้ (RISKS OF PARTICIPATION):
การศึกษาคั้งนี้จะไม่มีความเสี่ยงที่จะก่อให้เกิดไม่ว่าจะเป็นด้านความ
เครียดกดดัน ด้านสรีระวิทยา ด้านสังคม ด้านกายภาพ หรือ
ด้านกฎหมาย
ที่มากไปกว่าชีวิตปกติประจำวันทั้งขนาดของความเสี่ยงหรือความเป็น
ไปได้ที่จะเกิดความเสี่ยงนั้นๆ แต่อย่างไรก็ตาม
หากผู้เข้าร่วมการศึกษาเริ่มมีความรู้สึกที่ไม่สะดวกสบาย
หรือเกิดความเครียดจากการเป็นส่วนหนึ่งของโครงการนี้
คุณก็สามารถบอกเลิกการเป็นส่วนหนึ่งของการศึกษาคั้งนี้ได้ทันที
กเมื่อ

ประโยชน์การเข้าร่วมการศึกษา (BENEFITS OF PARTICIPATION):
ประโยชน์หลักที่ได้จากการเข้าร่วมโครงการนี้
คือการมีส่วนช่วยพัฒนาเครือข่ายอาจารย์และการสอนในระดับอุดม
ศึกษา
ท่านอาจได้ประโยชน์จากการเรียนรู้และเข้าใจการดำเนินการวิจัยค
ั้งนี้



การรักษาความลับ (CONFIDENTIALITY):

ข้อมูลสารสนเทศเกี่ยวกับตัวท่านจะได้รับการเก็บรักษาอย่างเป็นความลับไม่เปิดเผย

บันทึกการวิจัยจะถูกเก็บไว้เป็นอย่างดีในสำนักงานที่บ้านของผู้วิจัยหลัก และเฉพาะผู้วิจัยและบุคคลที่รับผิดชอบเท่านั้นที่จะเข้าถึงบันทึกการวิจัย

ก่อนการนำเสนอข้อมูลจะได้รับการใส่รหัสและใช้นามแฝงเพื่อการนำเสนอ

ผลการวิจัยครั้งนี้อาจจะถูกนำเสนอในที่ประชุมทางวิชาชีพหรือการตีพิมพ์

มีความเป็นไปได้ที่กระบวนการให้ความยินยอมและการเก็บข้อมูลจะถูกตรวจสอบโดยคณะกรรมการที่ดูแลงานวิจัยเพื่อเป็นการพิทักษ์สิทธิและความเป็นอยู่ดีของผู้ที่เข้าร่วมการวิจัย

ข้อมูลวิจัยจะถูกเก็บรักษาไว้หนึ่งปีภายหลังการศึกษาวิจัยสิ้นสุดลง และจะถูกทำลายโดยทันทีหลังจากนั้น

ผลประโยชน์ตอบแทน (COMPENSATION):

ไม่มีผลประโยชน์ตอบแทนแก่ผู้เข้าร่วมการศึกษาวิจัยครั้งนี้

การติดต่อผู้วิจัย (CONTACTS):

ท่านอาจติดต่อผู้วิจัยได้จากที่อยู่และโทรศัพท์ดังนี้

กร ศรเลิศล้ำวานิช (Korn Sornlertlumvanich)

ภาควิชาบริหารเภสัชกิจ คณะเภสัชศาสตร์

มหาวิทยาลัยสงขลานครินทร์ โทรศัพท์ (66) 74-428167 หรือ

korn.s@psu.ac.th หรือ Dr Adrienne E. Hyle, ที่ปรึกษา, 325D

Willard Hall, OSU, Stillwater, OK 74075, โทรศัพท์ (405) 744-

9893 หรือ adrienne.hyle@okstate.edu.

หากท่านมีข้อสงสัยเกี่ยวกับสิทธิของท่านในฐานะอาสาสมัครเข้าร่วมการวิจัยครั้งนี้ ท่านอาจติดต่อ Dr. Shelia Kennison, ประธาน IRB,

219 Cordell North, Stillwater, OK 74078, โทรศัพท์ (405)744-1676
หรือ irb@okstate.edu

สิทธิของผู้เข้าร่วมการวิจัย (PARTICIPANT RIGHTS):
การเข้าร่วมการวิจัยครั้งนี้เป็นการเข้าร่วมแบบสมัครใจ
ไม่มีการลงโทษหากต้องหยุด
หรือบอกเลิกการเป็นส่วนหนึ่งของการวิจัย
และท่านสามารถบอกเลิกได้ทุกเมื่ออย่างเป็นอิสระ

การให้หลักฐานความยินยอมเข้าร่วมการวิจัย (CONSENT DOCUMENTATION):

ข้าพเจ้าได้รับการบอกกล่าวถึงระเบียบวิธีปฏิบัติตามที่ปรากฏข้างต้น
แล้ว ข้าพเจ้ามีความตระหนักถึงสิ่งที่จะถูกร้องขอให้ปฏิบัติ
และผลประโยชน์ในการเข้าร่วมการวิจัยครั้งนี้
และข้าพเจ้าเข้าใจเกี่ยวกับข้อความข้างล่างนี้

ข้าพเจ้าให้คำมั่นว่าข้าพเจ้าอายุเกิน 18 ปีบริบูรณ์

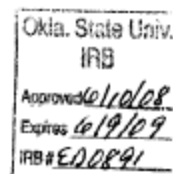
ข้าพเจ้าได้อ่านและทำความเข้าใจแบบการให้ความยินยอมเข้าร่วมการวิจัยอย่างถี่ถ้วนแล้ว ข้าพเจ้าลงนามอย่างอิสระและโดยสมัครใจ
ข้าพเจ้าขอลงนามให้อนุญาตสำหรับการเข้าร่วมการวิจัยครั้งนี้

ลายเซ็นผู้เข้าร่วมการวิจัย
(Signature of Participant)

วันที่

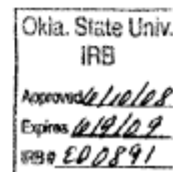
ข้าพเจ้าขอให้รับรองว่า

ข้าพเจ้าได้อธิบายเกี่ยวกับเอกสารฉบับนี้แก่ผู้เข้าร่วมการวิจัยครั้งนี้ก่อนที่ผู้เข้าร่วมการวิจัยจะลงนาม



ลายเซ็นผู้วิจัย
(Signature of Researcher)

วันที่





**ADMINISTRATOR CONSENT TO PARTICIPATE IN A RESEARCH STUDY
OKLAHOMA STATE UNIVERSITY**

PROJECT TITLE: Faculty Social Network Fostering Pedagogy Reform: A Case Study from Prince of Songkla University

INVESTIGATOR: Korn Sornlertlumvanich (Graduate student at Oklahoma State University)

PURPOSE: This study, which is research conducted for a student dissertation, is being conducted through Oklahoma State University. The purpose is to examine the relationships developed among faculty at PSU in implementing the new and required pedagogy reform strategies through the lenses of Granovetter's (1973, 1983) Network Analysis and Perpetuation Theory (Braddock, 1980).

PROCEDURES: To participate in this study, the following procedures will be required:

1. Interview with the participant. This is an in-person interview. The questions regarding the opportunities provided by PSU designed to enhance faculty teaching, and other plans and strategies to implement to change teachers' practice in university. The interview is designed to last approximately 1 to 2 hours.
2. The interviews will be in a location agreeable to both parties. It is hoped that this interview can be on campus in the Office of the President.
3. Follow-up interview will also be used to clarify any comments.

RISKS OF PARTICIPATION: There are no risks associated with this study, including stress, psychological, social, physical, or legal risk which are greater, considering probability and magnitude, than those ordinarily encountered in daily life. If, however, you begin to experience discomfort or stress in this project, you may end your participation at any time.

BENEFITS OF PARTICIPATION: The main benefit of this study will help developing teachers' networks and teaching practice in Thai higher education. You may gain an appreciation and understanding of how research is conducted.

CONFIDENTIALITY: All information about you will be kept confidential and will not be released. Research records will be stored securely in a home office of the primary researcher and only researchers and individuals responsible for research oversight will have access to the records. Prior to presentation, all data will be encoded and pseudonym will be used in presentation of the data. Results from this study may be presented at professional meetings or in publications. It is possible that the consent process and data collection will be observed by research oversight staff responsible for safeguarding the rights and wellbeing of people who participate in research. Data will be kept for one year following completion of the study and then it will be destroyed.

COMPENSATION: There is not any compensation for participation in this study.

CONTACTS: You may contact any of the researchers at the following addresses and phone numbers: Korn Sornlertlumvanich, Department of Pharmacy Administration, Faculty of Pharmaceutical Science, Prince of Songkla University, (66) 74-428167 or korn.s@psu.ac.th or Dr Adrienne E. Hyle, Advisor, 325D Willard Hall, OSU, Stillwater, OK 74075, (405) 744-9893 or adrienne.hyle@okstate.edu. If you have questions about your rights as a research volunteer,

you may contact Dr. Shelia Kennison, IRB Chair, 219 Cordell North, Stillwater, OK 74078, 405-744-1676 or irb@okstate.edu

PARTICIPANT RIGHTS: Your participation in this research is voluntary. There is no penalty for refusal to participate, and that you are free to withdraw your consent and participation in this project at any time, without penalty.

CONSENT DOCUMENTATION: I have been fully informed about the procedures listed here. I am aware of what I will be asked to do and the benefits of my participation. I also understand the following statements:

I affirm that I am 18 years of age or older.

I have read and fully understand this consent form. I sign it freely and voluntarily. A copy of this form will be given to me. I hereby give permission for my participation in the study.

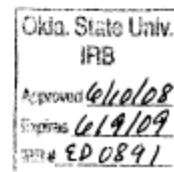
Signature of Participant

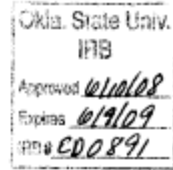
Date

I certify that I have personally explained this document before requesting that the participant sign it.

Signature of Researcher

Date





ใบยินยอมของผู้บริหารในการเข้าร่วมการศึกษาวิจัย

ADMINISTRATOR CONSENT TO PARTICIPATE IN A RESEARCH STUDY
OKLAHOMA STATE UNIVERSITY

หัวข้อโครงการวิจัย (PROJECT TITLE):

เครือข่ายทางสังคมของอาจารย์ที่สนับสนุนการปฏิรูปการสอน:
กรณีศึกษาจาก มหาวิทยาลัยสงขลานครินทร์ (Faculty Social
Network Fostering Pedagogy Reform: A Case Study from Prince
of Songkla University)

ผู้วิจัย (INVESTIGATOR): กร ศรเลิศล้ำวานิช
(นักศึกษาปริญญาเอก Oklahoma State University)

วัตถุประสงค์การวิจัย (PURPOSE):

การศึกษานี้ถือเป็นการวิจัยที่เป็นส่วนหนึ่งของวิทยานิพนธ์ปริญญาเอกที่กระทำผ่านทาง Oklahoma State University โดยมีวัตถุประสงค์เพื่อตรวจสอบความสัมพันธ์ที่พัฒนาขึ้นของอาจารย์ที่มหาวิทยาลัยสงขลานครินทร์ตามกลยุทธ์การนำการสอนที่เป็นที่ต้องการไปสู่การปฏิบัติ ทั้งนี้โดยศึกษาผ่านมุมมองตามทฤษฎี Network Analysis ของ Granovetter (1973, 1983) และ ทฤษฎี Perpetuation ของ Braddock (1980)

ระเบียบวิธีปฏิบัติ (PROCEDURES):

การศึกษานี้มีวิธีปฏิบัติที่จำเป็นต่อผู้ที่เข้าร่วมเป็นส่วนหนึ่งของการศึกษานี้ดังต่อไปนี้

1. การสัมภาษณ์ผู้เข้าร่วมวิจัย

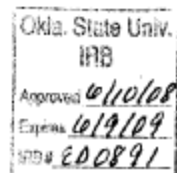
การสัมภาษณ์เป็นการสัมภาษณ์ส่วนบุคคล
คำถามที่ใช้ถามจะเป็นคำถามที่เกี่ยวกับโอกาสที่มหาวิทยาลัยได้มีจัดให้มีขึ้นเพื่อสนับสนุนการสอนของอาจารย์
และแผนงานหรือกลยุทธ์ที่นำไปสู่การเปลี่ยนแปลงการสอนของอาจารย์ การสัมภาษณ์จะใช้เวลาประมาณ 1 ถึง 2 ชั่วโมง

2. การสัมภาษณ์จะกระทำในสถานที่ที่เป็นที่ยอมรับของทั้งสองฝ่าย อาจจะเป็นที่สำนักงานอธิการบดีของมหาวิทยาลัย
3. การสัมภาษณ์ติดตาม
อาจจะกระทำเพื่อให้เกิดความกระจ่างในทุกประเด็น

ความเสี่ยงในการเข้าร่วมการศึกษาครั้งนี้ (RISKS OF PARTICIPATION):
การศึกษาค้างนี้จะไม่มีความเสี่ยงที่จะก่อให้เกิดไม่ว่าจะเป็นด้านความเครียดกดดัน ด้านสรีระวิทยา ด้านสังคม ด้านกายภาพ หรือด้านกฎหมาย
ที่มากกว่าชีวิตปกติประจำวันทั้งขนาดของความเสี่ยงหรือความเป็นไปได้ที่จะเกิดความเสี่ยงนั้นๆ แต่อย่างไรก็ตาม
หากผู้เข้าร่วมการศึกษาเริ่มมีความรู้สึกที่ไม่สะดวกสบายหรือเกิดความเครียดจากการเป็นส่วนหนึ่งของโครงการนี้
คุณก็สามารถบอกเลิกการเป็นส่วนหนึ่งของการศึกษาครั้งนี้ได้ทันทีทุกเมื่อ

ประโยชน์การเข้าร่วมการศึกษา (BENEFITS OF PARTICIPATION):
ประโยชน์หลักที่ได้จากการเข้าร่วมโครงการนี้
คือการมีส่วนร่วมช่วยพัฒนาเครือข่ายอาจารย์และการสอนในระดับอุดมศึกษา
ท่านอาจได้ประโยชน์จากการเรียนรู้และเข้าใจการดำเนินการวิจัยครั้งนี้

การรักษาความลับ (CONFIDENTIALITY):
ข้อมูลสารสนเทศเกี่ยวกับตัวท่านจะได้รับการเก็บรักษาอย่างเป็นความลับ ไม่เปิดเผย
บันทึกการวิจัยจะถูกเก็บไว้อย่างดีในสำนักงานที่บ้านของผู้วิจัยหลักและเฉพาะผู้วิจัยและบุคคลที่รับผิดชอบเท่านั้นที่จะเข้าถึงบันทึกการวิจัย
ก่อนการนำเสนอข้อมูลจะได้รับการใส่รหัสและใช้นามแฝงเพื่อการ



นำเสนอ

ผลการวิจัยครั้งนี้อาจจะถูกนำเสนอในที่ประชุมทางวิชาชีพหรือการตีพิมพ์

มีความเป็นไปได้ที่กระบวนการให้ความยินยอมและการเก็บข้อมูลจะถูกตรวจสอบโดยคณะกรรมการที่ดูแลงานวิจัยเพื่อเป็นการพิทักษ์สิทธิและความเป็นอยู่ดีของผู้ที่เข้าร่วมการวิจัย ข้อมูลวิจัยจะถูกเก็บรักษาไว้หนึ่งปีภายหลังจากการศึกษาวิจัยสิ้นสุดลง และจะถูกทำลายโดยทันทีหลังจากนั้น

ผลประโยชน์ตอบแทน (COMPENSATION):

ไม่มีผลประโยชน์ตอบแทนแก่ผู้เข้าร่วมการศึกษาวิจัยครั้งนี้

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สิทธิของผู้เข้าร่วมการวิจัย (PARTICIPANT RIGHTS):

การเข้าร่วมการวิจัยครั้งนี้เป็นการเข้าร่วมแบบสมัครใจ

ไม่มีการลงโทษหากต้องหยุด

หรือบอกเลิกการเป็นส่วนหนึ่งของการวิจัย

และท่านสามารถบอกเลิกได้ทุกเมื่ออย่างเป็นอิสระ



การให้หลักฐานความยินยอมเข้าร่วมการวิจัย (CONSENT DOCUMENTATION):

ข้าพเจ้าได้รับการบอกกล่าวถึงระเบียบวิธีปฏิบัติตามที่ปรากฏข้างต้นแล้ว ข้าพเจ้ามีความตระหนักถึงสิ่งที่จะถูกร้องขอให้ปฏิบัติ และผลประโยชน์ในการเข้าร่วมการวิจัยครั้งนี้ และข้าพเจ้าเข้าใจเกี่ยวกับข้อความข้างล่างนี้

ข้าพเจ้าให้คำมั่นว่าข้าพเจ้าอายุเกิน 18 ปีบริบูรณ์

ข้าพเจ้าได้อ่านและทำความเข้าใจแบบการให้ความยินยอมเข้าร่วมการวิจัยอย่างถี่ถ้วนแล้ว ข้าพเจ้าลงนามอย่างอิสระและโดยสมัครใจ ข้าพเจ้าขอลงนามให้อนุญาตสำหรับการเข้าร่วมการวิจัยครั้งนี้

ลายเซ็นผู้เข้าร่วมการวิจัย
(Signature of Participant)

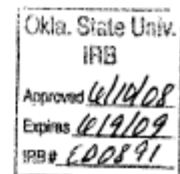
วันที่

ข้าพเจ้าขอให้คำรับรองว่า

ข้าพเจ้าได้อธิบายเกี่ยวกับเอกสารฉบับนี้แก่ผู้เข้าร่วมการวิจัยครั้งนี้ก่อนที่ผู้เข้าร่วมการวิจัยจะลงนาม

ลายเซ็นผู้วิจัย
(Signature of Researcher)

วันที่



Appendix B

Classroom Observation Checklist

Indicators	Teacher-Centered	Learner-Centered
1. Arrangement of classroom furniture		
2. The ratio of teacher talk to student talk		
3. Whether most instruction occurs individually, in small groups, or with the entire class		
4. The presence or absence of learning or interest centers that are used by students as part of their instruction		
5. The degree of physical movement students are allowed without asking the teacher		
6. The degree of reliance upon texts and use of varied instructional materials		
7. The organization of learning content		

Adapted from "*How teachers taught: Constancy and change in American classrooms*" by L. Cuban, 1993.

Appendix C

Questions for Participants

1. Please describe the way you teach your students.
 - What is helpful?
 - What is not?
 - How do you engage learners in the content?
 - Describe your relationship with the learners.
2. What are you trying to accomplish?
3. What do you think is the best design/strategy for your students to learn?
4. Please describe changes in your teaching over time: What are the changes? How did you change?
5. Where did you get your ideas or information about teaching?
 - Classroom practice?
 - Student interactions?
 - Student-focused or teacher-focused?
6. With whom did you discuss your teaching matters during the last six months?
7. Please detail your professional history: position, degree earned and teaching experience, education and training, and awards received.

Appendix D

Questions for Administrators

1. Please describe what you know about the opportunities provided by PSU designed to enhance faculty teaching.
2. What other plans and strategies do you plan to implement to change teachers' practice in university?

VITA

KORN SORNLERLUMVANICH

Candidate for the Degree of

Doctor of Education

Dissertation: FACULTY SOCIAL NETWORKS FOSTERING PEDAGOGY
REFORM: A CASE STUDY FROM PRINCE OF SONGKLA
UNIVERSITY

Major Field: Applied Educational Studies

Biographical:

Personal Data: Male, native Thai, born in 1958 in Hat-Yai, Songkhla, the
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Education: Graduated from HatYai Vithayalai High School, Thailand in 1976;
and received Bachelor of Pharmaceutical Sciences degree from
Chulalongkorn University, Bangkok, Thailand, in March 1980; received
Master of Business Administration degree from Prince of Songkla
University, Hat-Yai, Thailand, in March 1994; completed the
requirements for the Doctor of Education degree in Applied Educational
Studies from Oklahoma State University, Stillwater, Oklahoma, in July
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Experience: Worked as a hospital pharmacist for Songkla Nakarind Hospital,
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for Faculty of Pharmaceutical Sciences at Prince of Songkla University,
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Professional Memberships: The Pharmacy Council, Thailand

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Date of Degree: July, 2009

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Location: Stillwater, Oklahoma

Title of Study: FACULTY SOCIAL NETWORKS FOSTERING PEDAGOGY
REFORM: A CASE STUDY FROM PRINCE OF SONGKLA
UNIVERSITY

Pages in Study: 215

Candidate for the Degree of Doctor of Education

Major Field: Applied Educational Studies

Scope and Method of Study: This study examined the social networks of faculty's strong ties and weak ties and their impacts of those associations upon faculty's learning of pedagogical progressives in the ongoing context of the National Education Reform in Thailand. The case study was conducted at a government-owned, multi-campus university in Thailand. Four faculty staff from different faculties in health sciences were selected according to their outstanding reputation in teaching with learner-centered approach and were assigned as subunits for the study. Documentation, direct observations, and interviews were used in data collection. Pattern matching data analysis was undertaken through the lenses of Granovetter's (1973, 1983) strength of ties and Perpetuation Theory (Braddock, 1980; Wells & Crain, 1994).

Findings and Conclusions: Results indicated that weak ties were developed in faculty's networks across the subunits and only these weak ties possessed bridging ability to distant critical information and influences for pedagogical progressives. Multiple realities were evidenced in the study including the interpretations of short-term and long-term outcomes of the university's policy and strategies, the social phenomenon of perpetuation among faculty, the possible loss of the pedagogical relation in the system designed of teaching model, the necessary and usefulness of naturalistic inquiry for study Thai context, and how to unfold the invisible web of personal relationships among faculty and the macrosocial of pedagogy.

ADVISER'S APPROVAL: Dr. Adrienne Hyle
