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**A Decade of Education Reform in Thailand:  
Broken Promise or Impossible Dream?**

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### **Abstract**

This study addresses the perceived gap between the vision of education reform in Thailand embodied in its Education Reform Law of 1999 and results of implementation a decade later. Drawing upon opportunistic data obtained from a sample of 162 Thai school principals, the paper analyzes trends in reform implementation across schools in all four regions of the country and levels of the K-12 system. The results suggest that a decade following the initiation of education reform, changes in teaching and learning, ICT implementation and school management systems have yet to engage the nation's teachers to a substantial degree. The lack of results is linked to the reform strategy which has emphasized top-down implementation and a cultural predisposition to treat change as an event rather than as a long-term process.

During the 1990s Thailand, like other rapidly developing nations in Southeast Asia, focused upon expanding access to education for its youth. Over the course of the decade, Thailand raised the level of compulsory schooling from six to nine years, and then finally to 12 years of free schooling (ONEC, 1999). This rising investment in education reflected beliefs that continued economic development would require a more knowledgeable and skilled labor force and that new capabilities and attitudes would be needed for the nation to cope with the cultural exigencies of globalization (Carnoy, 2003; Fry, 2002; Jungck & Kajornsin, 2003; Kaewdang, 1998; Mounier & Tangchuang, 2009).

In the view of some Thai policymakers, however, expanded educational access had simply increased the number of students being exposed to the “pedagogy of the worksheet” (Pennington, 1999, p. 2). Indeed, a chorus of voices contended that continued reliance on traditional educational methods had become an impediment to the nation’s social and economic development (Hallinger, 2004; ONEC, 1999; Pennington, 1999; Thongthew, 1999). The following quote from a former widely respected Minister of Education conveys ‘the problem’ as it came to be defined in the minds of Thai policymakers during the 1990s.

[S]tudents should not be blamed for poor academic performance. The fault lay instead with the learning process. . . [S]chools and parents should . . . create a learning atmosphere to encourage students to think analytically. Schools spend too much time teaching by rote and doing multiple choice tests. (Dr. Sippanondha Ketudat, quoted by Bunnag, 1997, p. 2)

It was in this context that Thailand passed an ambitious National Education Act (NEA) in 1999 (ONEC, 1999). This law set new educational goals and sought both to legitimate and stimulate the reform of teaching and learning methods, school management systems, and the legal framework of education in Thailand. The substantive thrusts of the NEA were to decentralize authority, engage local initiative in the management and delivery of educational services, support the integration of ‘local wisdom’ into the curriculum, empower teachers, create a more active learning environment for pupils, and refocus the system from *quantity of graduates* to *quality of learning* (Fry, 2002; Hallinger, 2004; Kantamara, Hallinger, Jatiket, 2006; Pennington, 1999; ONEC, 1999; Thongthew, 1999; Wongwanich & Wiratchai, 2004).

Responsibility for leading education reform in Thailand was shared by the Office of the National Education Commission (ONEC) and the Ministry of Education’s Office of Basic Education (OBEC). The following quotation conveys the highly ambitious and urgent vision for change as stated by Dr. Rung Kaewdang, Secretary General of ONEC, in 2000.

Thailand has passed an Education Reform Law. Learning by rote will next year be eliminated from all primary and secondary schools and be replaced with student-centered learning. . . Any teachers found failing to change their teaching style would be listed and provided with video-tapes showing new teaching techniques. If they still failed to improve, they would be sent for

intensive training. (Dr. Rung Kaewdang as quoted in Bunnag, 2000, p. 5)

This quotation no doubt oversimplifies the complex education reform strategy formulated by Dr. Rung and the ONEC for implementation by the Ministry of Education (Fry, 2002; Kaewdang, 1998; ONEC, 1999). Indeed, a voluminous literature has evolved around the problem of bringing about sustainable changes in teaching and learning throughout the world (e.g., Carnoy, 2003; Cuban, 1990; Fullan, 2007; Hallinger, 2010; Sarason, 1990; Slegers, Geijsel, & Van den Berg, 2002; Tyack & Cuban, 1999). Yet, the authors wish to suggest that this vision of strategic reform of education also reflects assumptions about organizational change in the Thai cultural context (Hallinger, 2004; Hallinger, Chantarapanya, Sriboonma, & Kantamara, 2000). Implicit in this quotation is a cultural disposition to believe that people (including teachers) will do as they are told by those who are more senior in rank. Evidence of this social disposition towards status, rank and seniority is well documented not only in Thailand's education system (e.g., Hallinger & Kantamara, 2000; Kantamara et al., 2006; Ketudat, 1984; Sykes, Floden, & Wheeler, 1997), but also in its business sector (Holmes & Tangtongtavy, 1996; Kamoche, 2000; Komin, 1990, 1991; Lawler & Siengthai, 1997; Swierczek, 1999), and Thai society more generally (Klausner, 1993; Komin, 1991; Mulder, 1978; Redmond, 1998).

Of course, resistance to change is by no means unique to Thailand, and its pervasiveness has also been described extensively in other Western cultures (e.g., Bridges, 2003; Cuban, 1990; Drucker, 1995; Evans, 1996; Kotter, 1996; Maurer, 1996; O'Toole, 1995). Yet, scholars have documented predictable ways in which cultural values and norms shape modal responses to change in the Thai context (e.g., Hallinger, 2004; Hallinger & Kantamara, 2000; Holmes & Tangtongtavy, 1996; Kamoche, 2000; Komin, 1990, 1991). Consequently, we suggest that Thai policymakers have tended to view the main obstacles to education reform and change as structural (e.g., create a new organizational framework) and political (pass a law authorizing new goals and legal frameworks) rather than socio-cultural.

Ten years after the passage of the NEA, we inquire into how Thailand's progress towards education reform has unfolded. This is by no means just an 'academic' issue. Observers have explicitly linked social unrest in Thailand during 2010 to a perception among some segments of Thai society of unequal access to quality education (*The Nation*, 2010). More generally, a broad array of critics has suggested that education reform has stalled, and public dissatisfaction with the lack of observable results is on the rise. For example:

The Thai government. . . has spent a huge amount of money to reform schools here. The intention to raise the standard of schools is admirable. But the means of upgrading school quality might need a more meaningful push. Simply throwing money at schools to build new buildings or increase teaching personnel without evaluating the level of education itself may not be money well spent. (Editorial excerpt from *The Nation*, 2010)

This study explores the gap between Thailand's promise of education reform and results a decade after its launch. The paper addresses three specific research questions:

- Which types of reforms do school principals perceive as high priority?
- What pattern of progress has been achieved in implementing these key reforms?
- What factors are impacting the implementation of educational reform in Thai schools?

Our study employs data collected during a series of workshops on organizational change conducted with over 1,800 school principals in 2008. The data presented in this report focus on principals' perceptions of reforms being implemented in a subset of 162 primary and secondary schools. While the data are limited to perceptions of a single stakeholder group, we assert that the principals' perceptions represent one valid source of information on the focal issues. While the study does not offer a definitive answer to the question posed in the title of the paper, it provides insight into the nature of progress towards education reform in Thailand and enhances our understanding of factors impacting educational change in this rapidly developing part of the world.

### **Background of the Study**

In early 2008, the lead author received a call from Dr. Kasuma Voravarn, Secretary General of Thailand's Office of Basic Education Commission (OBEC). She mentioned that OBEC was about to launch a new set of education reform policies centering on school-based management (SBM), educational quality assurance, and parental involvement in schools. OBEC's roll-out strategy for the new policy initiatives would commence with a five-day workshop program delivered multiple times to principals throughout all regions of Thailand.

She proposed that he design and deliver a full day workshop on *Leading Change* that would launch each round of the workshop series. The OBEC organizers specified several requirements for the proposed workshop. The workshop would need to be:

- Delivered in Thai,
- Taught in an active learning mode with practical outputs,
- Contextualized for Thai primary and secondary schools,
- Aimed at inspiring the principals as well as enhancing their skills in leading change,
- Delivered 15 to 20 times to 100-120 principals per session in a six-week period prior to the start of the new school year.

The author accepted this challenge and designed a workshop on *Leading Change*. Given the large number of principals who would attend the training programs, the workshop was also viewed as an opportunity for research. Thus, the workshop became the vehicle for collecting data for the research reported in this paper.

## **The Leading Change Workshop: Design and Content**

The workshop employed a problem-based learning design (Bridges & Hallinger, 1995) that engage each principal in constructing a case study around a specific change being implemented at his/her school. In order to foster an active learning environment, the participants were seated at tables, and organized in pre-determined groups of 10 per table. At each table there was also a group facilitator, a secretary with a notebook computer, and a flipchart.

The workshop employed an iterative sequence of mini-lectures and group/individual activities to be conducted by the principals at their tables. There were five phases in the workshop. These focused on identifying a change, analyzing the school as a context for change, assessing implementation progress, designing change strategies, and committing to leadership actions.

*Phase 1: Identify key changes in schools.* The instructor opened with a brief presentation on global and local change forces impacting education in Thailand. Following this mini-lecture, the principals at each table were asked to generate a collective list of key changes being implemented at their schools. Then each principal selected one important change that impacted students, teachers and/or community as the focus for their personal case study.

Each principal filled in a worksheet that sought concise information about the nature of the change, the school's culture, and teacher, community and student characteristics. The principals then made brief presentations about their changes to the other principals at their table. The principals at each table were then instructed to select one school's change as a 'Table Case' on which to focus their small group discussions for the remainder of the day. The instructor emphasized that the change should be an important reform with relevance to all of the principals at the table. After each group had selected a 'Table Case' information about the change and the school was written on the flipchart, discussed by the group, and recorded on the computer by the table secretary.

*Phase 2: Analyzing the school's readiness for change.* The next phase of the workshop consisted of a mini-lecture on resistance to change. During the subsequent activity period, the principals used the workshop handout to analyze their schools' readiness for change. Each principal rated his/her school's readiness for the specified change on a 1 (low) to 5 (high) scale using a set of predetermined change factors. The instructor had identified these factors from the literature on organizational change (e.g., Drucker, 1995; Evans, 1996; Fullan, 2007; Hall & Hord, 2002; Kotter, 1996; McLaughlin, 1990). They included:

1. Staff Readiness: Attitude
2. Staff Readiness: Skills
3. School's Prior Experience with Change
4. Community Support
5. Top Management Support
6. Complexity of the Change\*

7. Size of School\*
8. School-level Leadership
9. Financial Support
10. School Culture Supports Change
11. Policy Support for the Change

These factors were totaled into a summary score that reflected the school's 'readiness for change.' Lower scores (e.g., <30) indicated a lower level of readiness and a greater likelihood of resistance. Higher scores (e.g., >40) would suggest a more supportive context for implementation of the change.<sup>1</sup>

*Phase 3: Analyze staff implementation in terms of change stages.* In the next phase, the instructor presented an adaptation of Hall and Hord's (2002) Concerns Based Adoption Model (CBAM). The principals were introduced to CBAM's five levels of use (LoU) in the innovation adoption process: Information, Interest, Preparation, Early Use, Routine Use. LoU describe a typical process through which people change as they engage in the adoption of new practices (e.g., new curriculum, teaching methods etc.). Table 1 describes what people typically feel and need in each of the levels or what we will refer to hereafter as 'stages' of change. We note that prior research conducted in Thailand suggested that these stages could be applied in the Thai context (Hallinger & Kantamara, 2001; Kantamara et al., 2006).

[Insert Table 1 about here]

The CBAM model emphasizes that change is a developmental process, not an event, and that people move through these stages at different speeds. It further proposes that effective change occurs when strategic actions designed to support implementation meet the needs that people are experiencing at a given point in time. Understanding the pattern of staff readiness for a specific reform or innovation can, therefore, be considered a prerequisite to formulating an effective strategy to support change. With this in mind, each principal 'rated' the percentage of his/her staff in these five levels or stages for the specific change. While this rating was naturally prone to some error, a broad picture of the current pattern of implementation in the school was sufficient for our purposes.

These steps engaged the principals in a systematic analysis of their schools as 'contexts for change.' This grounded the workshop content in data about their schools and ensured that principals could contextualize the learning. Finally, the process offered opportunities for the principals to share ideas with colleagues and gain greater appreciation for the challenges of change faced by principals in other schools.

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<sup>1</sup> For the purposes of our data analysis, we converted the mean scores into Z-scores. Drawing from the Z-scores, if Z-scores were -1 (i.e. a standard deviation of 1) or less than -1, they were categorized into lower scoring schools (i.e. the total scores less than 33). Conversely, if Z-scores were 1 or higher than 1, they were grouped into higher scoring schools (i.e. the total scores higher than 42). Schools with Z-scores between -1 and 1 were categorized into mid scoring schools.

*Phases 4 and 5: Change strategies and leadership.* Phase 4 focused on identifying change strategies that matched the needs of the particular principal's school context. The instructor first presented Kotter's (1996) eight-stage model of strategic change. This model proposes a sequential set of strategic actions that typify the process of successful organizational change. Whereas the CBAM model describes a pattern of use, the Kotter model focuses on strategies for engaging people and enabling them to move through the stages of change from non-use to routine use.

Next the instructor explicitly aligned Kotter's strategic actions with the five stages or levels of use in the CBAM model (see Figure 1). This guided the principals towards the development of a personalized set of change strategies appropriate to their schools' pattern of implementation progress. Phase 5 involved a presentation of the roles that leaders play in the change process. Localized examples of strategies for leading change in the Thai context were offered.

[Insert Figure 1 about here]

These last two phases do not pertain directly to the focus of this report which centers on illuminating patterns of school-level change. It should also be noted that each activity session during the workshop included two parts. First, each principal applied the workshop content to the change identified at his/her individual school. Then the Table Case principal would present his/her information and invite group input and discussion. Thus, each workshop generated about 120 *individual case studies*. However, only the Table Cases were recorded on the computers. The 162 complete Table Cases collected over the course of the workshop series formed the dataset employed for this study. In the following section, we discuss the research methodology in greater detail.

### **Research Method**

Although this study collected both qualitative and quantitative data, this report focuses on those data gathered from the principals that could be analyzed quantitatively. The research process was informed by principles derived from action science, a practice-oriented approach used in organizational studies (Argyris, 1993, 1997). Action science is a learning strategy designed to develop the skills and confidence of individuals or groups to create change in organizations and to foster long-term individual and group effectiveness. The method entails a sequenced description and analysis of contexts, constraints, behaviors and assumptions about actions (Action science, n.d.). It seeks to engage participants in understanding their own actions and those that describe their organizational unit from a systems perspective (Argyris, 1993, 1997; Checkland, 1981).

### **Sample**

The sample for this study can be considered in terms of two units of analysis. The first consisted of the overall sample of principals who participated in the training. OBEC's priority



was to engage a large group of principals representing medium to large schools from all levels and regions of the country. The overall sample of 1,819 principals attending the workshops was distributed as follows: Primary School (38%), Secondary Schools (41%), K-12 School (21%). Their distribution by region was: Northeast (41%), North (18%), South (16%), Central (24%). Ninety-five percent of the principals had more than five years of experience as a principal, and 72 percent more than 10 years of experience. While these figures are quite representative of the population characteristics of Thai principals under the supervision of OBEC, we note two criteria on which the sample was not representative. It included few small schools and first year principals.

The sampled unit of analysis consisted of the subset of 162 principals who participated as ‘Table Case’ leaders. One hundred percent of these principals had been at their schools for at least three years. The distribution of the Table Case schools reflected the distribution noted above for region and school level. Thus, while the Table Case schools can be considered representative of the 1,819 participants attending the workshops, generalizations of the findings to change across all Thai schools must still be made with caution.

### **Data Collection**

The research process provided a general framework for data collection consisting primarily of a set of open-ended questions supplemented by two structured rating tasks. Group discussions centered on the Table Cases. This was intended to stimulate the Table Case principals to reflect on their data, reconsider their assumptions, and offer details to strengthen the validity of their responses.

At the conclusion of the day, time was set aside for the table facilitator, case principal, and table secretary to review the accuracy of the information entered into the computer. At each session, three ‘Lead Facilitators’ circulated during this final review period to further ensure that the designated sequence of procedures was being followed in order to preserve the integrity of each Table’s data. The computer files were then collected and saved in a central location.

The individual data files representing the Table Cases were entered in Thai language using a MS Word template file. Next we generated a set of data categories organized around the research questions. An Excel spreadsheet was created with relevant column headers in English and Thai representing categories for data entry. Each Table Case represented a data record. Some variables required coding prior to data entry (e.g., School Region, School Level, Change Focus). For other variables, numerical data were entered directly from the MS Word file (e.g., percentage of teachers by stage of change, rating of change factors).

Given the unorthodox nature of the research design, we wish to highlight strengths and limitations of the data. While the research did not employ a planned sampling strategy, the project offered timely, first-hand access to a large representative sample of Thai principals who would have otherwise been impossible to engage in the research. Moreover, as described above,

each of the 162 principals spent seven hours constructing their case studies of school change with the assistance of colleagues. This enabled the researcher to leverage the descriptive power of the case study method, while at the same time generating a large number of cases that could be analyzed quantitatively (Yin, 2008).

### **Data Analysis**

Descriptive statistics were employed to portray trends. Then inferential statistics were used to determine whether observed trends were significant. Statistical testing relied primarily on categorical data analysis, ANOVA and MANOVA, supported by discriminant function analysis.

### **Results**

The results offer insight into the implementation of key reforms a decade after passage of the NEA in 2000. The presentation of results follows the three main research questions.

#### **Focus of Change**

The first question concerns the priority assigned by principals to various reforms. Rather than ask the principals to rank order a set of predetermined reforms, we addressed this indirectly by examining the changes selected by the principals. Relevant data included the reforms selected by the full sample of 1,819 principals as well as the 162 Table Cases. We begin by noting that the reforms selected for analysis in the Table Cases offer a reasonable representation of those selected by the overall sample of principals (see Table 2).

[Insert Table 2 about here]

The data indicate that 10 years after the ONEC Secretary General's mandate for schools to implement student-centered learning, Teaching and Learning reforms continue to loom large in the vision of the principals. Changes related to Teaching and Learning represented a substantial plurality (40.5%) of the Table Cases. ICT-related innovations in teaching, learning and management comprised 23.3 percent of the Table Cases. Reforms in School Management Systems (including SBM, teacher empowerment and other innovations) made up 13 percent of the Table Cases. Other foci for the Table Cases included Student Social Development, Enhancement of School Climate, and Parent and Community Involvement. It is noteworthy that all of these represented foci for reform in the NEA and related policies. This suggests that the intentions of the reformers have carried through to the schools over the intervening years and remain active implementation targets for principals. Since the foci selected by the principals for their cases were dominated by Teaching and Learning, Management, and ICT, we limit our subsequent statistical analyses related to change foci to these three reforms.

[Insert Figure 2 about here]

First we note that the distribution of change foci showed a slightly more varied pattern when analyzed across Thailand's four geographic regions. Data in Table 3 support the conclusion that reforms in Teaching and Learning predominated across all four regions. At the

same time, however, principals in the Northeast and Central regions were more likely than their counterparts in the North and South to select ICT as a focus of change (Cramer's  $V = .209$ ,  $p = .066$ ). Principals in the North were more likely than counterparts in other regions to focus on School Management Systems (Cramer's  $V = .304$ ,  $p = .002$ ). In sum, we suggest that despite minor regional variations, the overall pattern of change priorities of the principals matches up closely with national priorities as expressed in the NEA.

[Insert Table 3 about here]

### **Progress Implementing Reforms**

The core issue in this study concerned the extent to which schools were progressing towards successful implementation of key education reforms. Data extracted from the case studies identified each principal's perception of progress by the teaching staff through the five stages of change for the selected reform (i.e., not 'in general'). These school-specific patterns of change were aggregated to form a portrait of overall reform progress across the 162 schools.

The data in Figure 3 portray a dispersed but relatively low level of adoption of the relevant reforms. By the principals' estimation, 64 percent of teachers remain in Non-User stages (i.e., Information, Interest, Preparation stages). Collected a decade after the passage of Thailand's education reform law, these data offer an impression of reform that has stagnated during the early and middle stages in the change process. While these data require further substantiation, we note that all of these principals had been in their schools for at least three years and should have had a fairly clear picture of teacher practice.

[Insert Figure 3 about here]

It was, however, possible that regional differences could be distorting this broad picture of reform implementation across Thailand. With this in mind, we analyzed patterns of progress for each of the key reforms in Thailand's four regions. Results of a MANOVA test indicated that variances in the four regions were not roughly equal for each of the five dependent variables (i.e., the stages of change). Therefore, to facilitate further data analysis, the teacher distribution across the stages of change was simplified into two groups, termed Users (i.e., teachers in Early Use and Routine Use) and Non-Users (i.e., teachers in Information, Interest and Preparation Stages). An ANOVA test for variation in the percentage of Users across the four regions found no regional differences ( $F(3, 158) = 1.699$ ,  $p = .169$ ). The overall pattern of implementation appeared quite similar across the country.

We also noted that our analysis was focused on a 'mixed bag' of reforms. Yet, one cannot draw firm conclusions about the *relative rate of progress* for different reforms without knowing the starting point of implementation. Some of these reforms had been underway for a decade or more (e.g., Teaching and Learning), while others were more recent in vintage (e.g., ICT). With this limitation in mind, we examined whether progress was similar for the three predominant

reforms within the case studies. We then used ANOVA to test for differences in the percentage of Users across the three reforms. Again, there were no significant differences in the pattern of progress across the three reform foci ( $F(2, 123) = .897, p = .418$ ). Absent data on the launch point of the changes, this finding suggests that the three reforms were following a fairly similar process of implementation.

[Insert Table 4 about here]

These analyses reaffirm the impression of reform stagnation reflected in the overall pattern of reform progress. However, since we were unable to confirm the validity of the data through alternative means, we continued to approach the interpretation of these findings with caution. We offer four perspectives that may aid in interpreting the validity of these results. First, the *direction of the findings* actually ran counter to concerns that the principals might feel social pressure to present self-flattering pictures of success to their colleagues. That is, contrary to the Thai cultural norm of ‘keeping one’s face’ in public settings (Holmes & Tangtongtavy, 1996; Klausner, 1993; Komin, 1991; Mulder, 1978; Redmond, 1998), this pattern of findings does not support a belief that the principals were putting a rosy shine on their schools.

Second, the *magnitude* of the findings is such that measurement error of any reasonable degree would not meaningfully change the overall picture of reform implementation. Even measurement error of 10 or 20 percent in the principals’ estimates would produce relatively small changes in the shape of the distribution.

Third, we note that results of the Table Cases were affirmed by data collected from the full sample of 1,819 principals. The main body of principals was polled during each workshop with the following question: “What percentage of your teachers is currently using learner-centered teaching approaches effectively and suitably in their classes?” The mean response from the sample of 1,819 principals suggested that 23 percent ( $SD=12\%$ , not tabled) of the teachers fell into the Routine User category. We place greater trust in data derived from the case studies due the fact that the principals had to explain and justify their personal interpretations of reforms such as Student-Centered Learning during the problem-based learning/action science process. Nonetheless, consistency between the results of the survey (23% Routine Users) and case studies (19% Routine Users) increases our confidence in the reliability of the Table Case data and generalizability of the case study results to the full sample.

Finally, the face validity of the data was assessed through the eyes of the Secretary General and staff at OBEC. When the results were presented to senior staff at OBEC, they were disappointed but not shocked. Indeed, the Secretary General responded, “These are the first substantive data that offer a picture of implementation across schools from principals all over the country. We need more data that show how the reforms are progressing” (Dr. Kasuma Voravarn, personal communication, June 27, 2008).

### **Factors Supporting and Impeding Change**

The final set of analyses focused on factors impacting implementation of these reforms. The principals identified School Leadership, Policy Support, and Communication as factors most strongly supporting implementation (see Figure 4). We note that School Leadership referred to not only the principal's leadership, but also staff level leadership. We found the favorable rating of Policy Support an unexpected endorsement of the NEA and the policies that it spawned over the ensuing decade.

[Insert Figure 4 about here]

In contrast, the strongest impediments to change consisted of the Complexity of the Change, Financial Support, Staff Skill, and the School's Prior Experience with Change. The principals were acutely aware of the extent to which these reforms required new attitudes and skills both from their teachers, students and communities. Discussions of the Table Cases among the principals highlighted the added complexity of implementing reforms such as Student-Centered Learning and SBM due to their lack of alignment with Thai cultural norms that reify status differentiation. In this light, it is interesting to note that lack of skills among teachers was viewed as a greater impediment to change than staff attitudes.

We examined the possibility of regional variation in perceptions through two statistical tests. First, we obtained a 'total change readiness score' for each school by adding up each principal's ratings of the school on the 11 change factors. An ANOVA test found no significant differences across the regions with respect to the pattern of school readiness ( $F(3,159) = 1.071$ ,  $p = .363$ ). A MANOVA test examined variation on the 11 change factors, but again yielded no significant differences across the four regions (Pillai's trace,  $p = .489$ ). Thus, based on the principals' assessment, these factors were impacting reform similarly throughout the country.

Next we explored whether these supporting and impeding factors were operating in a similar fashion for the three reforms. Based on the pattern of mean scores across the 11 factors, we limited this analysis to the top three and bottom four factors displayed in Figure 4. Table 5 shows that School Leadership, Policy Support, and Communication were viewed as key factors supporting the implementation of reforms in Teaching and Learning, ICT and Management Systems.

[Insert Table 5 about here]

MANOVA confirmed that there were no significant differences in the pattern of association for the three key reforms and factors impacting implementation (Pillai's Trace indicated  $p = .154$ ). At the same time, however, tests of between-subjects effects in the MANOVA test showed significantly different impact of Financial Support and Complexity of the Change for the different reforms. Therefore we conducted another MANOVA including only

these two factors. The average ratings of these two factors were significantly different for the three major foci of change (i.e. the Pillai's trace was  $p = .012$ ).

We interpret these results to suggest that although insufficient Financial Support was viewed as an impediment to reform in a general sense, this was not necessarily the case with respect to ICT. The OBEC staff noted that the government had recently allocated substantial funds specifically targeting ICT implementation. While Complexity of the Change was clearly the most significant impediment overall, it appeared to be larger obstacle in the implementation of reforms in Teaching and Learning than in ICT or School Management Systems. Again, we note that this finding mirrors experience in other parts in the world where reforms in teaching and learning practices are among the most resistant to change (Cuban, 1990; Fullan, 2007; Hall & Hord, 2002; Tyack & Cuban, 1999)

Given this significant MANOVA result, we performed a discriminant function analysis to further examine how those two factors "discriminate" the three change foci. The standardized discriminant function coefficients, equivalent to standardized beta coefficients in regression analysis, indicated that both factors contributed significantly to the variate (i.e., differences among the three change foci). However, Complexity of the Change (.802) made a greater contribution than Financial Support (.544). These relationships were significant (Wilks's  $\lambda = .900$ ,  $df(4)$ ,  $p = .012$ ). Moreover, the structure matrix of the discriminant function test also showed that Complexity of the Change was the most important in differentiating the three foci of change (.840). In sum, the discriminant function analysis reaffirms that there were significant differences in the associations between these two factors and the three change foci.

Finally, it was also of interest to determine whether these change factors could be directly linked to implementation progress. Therefore, we tested whether the principals' assessment of their schools' readiness for change could explain variations in patterns of progress. First, we employed the total school readiness score to allocate schools to one of three readiness levels (high, middle, low). Then we used ANOVA to test the relationship between the total school readiness scores and the percentage of Users across the 162 Table Cases. The results shown below indicate that schools in the High Readiness category were indeed more likely to show higher percentages of Users ( $F(2,159) = 2.84$ ,  $p = .06$ ; Levene's test  $p = .315$ ):

- High Staff Readiness (24 Schools): 47.5 percent Users,
- Mid Staff Readiness (117 Schools): 35.2 percent Users,
- Low Staff Readiness (21 Schools): 30.1 percent Users.

While this result was only statistically significant at a borderline level (i.e., .06), it suggests the possibility that differences in change progress were associated with the principal perceptions school readiness. If this finding is borne out through additional research, it could verify the impact of alterable change factors subject to the attention of policymakers and principals.

## Conclusion

The policy problem addressed in this study was grounded in perceptions of a gap between the promise of reform embodied in Thailand's National Education Act of 1999 and implementation results a decade later. The research sought to shed light on progress towards the successful implementation of education reform in Thailand as perceived by school principals at all levels and from throughout the nation. We conclude the report by summarizing the results and then discussing the implications.

### Summary of Results

The reforms selected by the principals for their case studies mirrored the key foci of Thailand's National Education Act of 1999. Reforms in Teaching and Learning, ICT, and Management Systems were selected most frequently by principals from all four regions of Thailand. This finding suggests that national education policy has been impacting the *direction of change* in Thai schools over the past decade. Given the possibility that 'reform fatigue' could easily have relegated any or all of these key reforms to the historical dust bin, we suggest that this is a very positive finding (Cuban, 1990; Fullan, 2007; Tyack & Cuban, 1999).

At the same time, however, our data indicated that progress in implementing these reforms to a degree that impacts students across Thailand has been slow. Indeed, based on the principals' perceptions, a significant percentage of teachers have yet to 'get off the mark' and actively engage these reforms. It should be noted that the principals did not 'blame' teachers for this pattern of implementation, but merely described the current status of reform progress as they saw it. This was consistent across all regions of the country and for all three of the reforms.

These results reinforce the public's perception that education reform in Thailand has yet to fulfill the promise of the NEA. Yet, we wish to suggest that this sense of disappointment may be a consequence of 'over-promising' and that the complexity and scale of these particular reforms would strain the capacity of any organizational system. Indeed, the challenge of implementing such an ambitious set of reforms with over 400,000 teachers would take considerable time in any national context.

The recent political turmoil in Thailand was attributed, in part, to a perception of regional differences in access to national resources, including education. We noted, however, that our results suggested 'no differences' in the pattern of implementation progress across the four regions of Thailand. As suggested above, this finding is at odds with the public perception of greater development of schools in the central region of Thailand (i.e., Bangkok and its surrounding provinces) when compared with the other three regions of Thailand in general and the poorest region, the Northeast, in particular.

Developing a plausible interpretation of this unexpected finding with the available dataset is simply not possible. We remind the reader that the workshops were conducted on a regional basis. This suggests that there would not have been any inter-region competitiveness

contaminating data collection during the workshops. Nonetheless, this finding certainly warrants further investigation using lower inference methods of investigation in schools and classrooms.

We also wish to highlight the fact that while effective users of these reforms have yet to reach a critical mass, there has been progress in developing staff capacity. Skillful leaders can draw on the expertise of the 30 percent of their staff who are Users to build momentum for further change. Thus, while the rate of progress does not appear to have met the originally stated expectation of full implementation of student-centered learning in a short span of time, modest progress in implementing these complex reforms is certainly evident.

The study also explored a variety of factors that could be impacting the schools' efforts to change. While the result was only significant at a borderline level, we noted that schools with higher 'readiness for change' were more likely than their counterparts to reach higher percentages of User status (i.e. Early Use or Routine Use). Key factors supporting change were School-level Leadership, Policy Support, and Communication. The most prominent factors impeding change were Complexity of the Reforms, Financial Support, Staff Skill, and the Prior Experience with Change. Not surprisingly, and consistent with international research findings, complexity was viewed by the principals as a particularly significant factor impeding change in Teaching and Learning.

While the reformers behind the NEA of 1999 conceptualized a combination of political, structural and human resource-based change strategies (Fry, 2002; Kaewdang, 1998; ONEC, 1999; Tan, 2007; Thongthaw, 1999), this may not have unfolded as intended during execution. In particular, we note possible inadequacies in training and development needed to support the acquisition and new skills and attitudes related to reforms in teaching and learning. This interpretation of the results is supported by findings from a study of education reform implementation conducted in rural Thailand by Barron-Gutty and Chupradit (2009).

These researchers examined implementation of one specific reform embedded in the NEA, the integration of 'local wisdom' into the taught curriculum. While they found some evidence of curriculum change, it was described as fragmented, lacking in deep integration, and well below the content level (i.e., 30%) envisioned in the education reform framework. In reflecting on the nature of progress, they characterized obstacles to successful implementation as follows: "The hurdles towards the implementation [of local wisdom into the taught curriculum] can be defined as structural, with the issue of insufficient budget, inappropriate training, lack of time and motivation/incitation" (Barron-Gutty & Chupradit, 2009, p. 35). We would characterize the last two of these hurdles, inappropriate training and lack of motivation/incitation as a human resource obstacles and endemic in the reform effort.

We wish to offer an additional perspective on our findings by reference to another empirical study of reform implementation. Wongwanich and Wiratchai (2004) employed a multi-site case study approach to study reform implementation in 80 schools in five provinces. The researchers inferred change in teacher behavior based on finding greater variation in teaching



strategies used by teachers in the schools. At the same time, however, they also reported a “lack of knowledge and understanding about learning reform” among teachers. . . and “no clear evidence of satisfactory results on student achievement” (Wongwanich & Wiratchai, 2004, no page number). They also observed that “implementation of SBM in most schools was found, but the model or concept of SBM being used was unclear except the participation of relevant staff members (Wongwanich & Wiratchai, 2004, no page number). Finally, even at that relatively early stage of reform implementation, they identified lack of budget devoted to staff development and training as important barriers to success.

We interpret our results as largely consistent with these empirical studies of education reform implementation in Thailand. Our findings similarly suggest evidence of progress, but a lack of deep penetration of the reforms in a large percentage of schools. Thus, all three studies describe the pattern of implementation as variable across teachers, and partial or surface in the nature of impact. In sum, we conclude that the picture of reform progress offered here is one of slow progress with a record of mixed success.

### **Implications**

These findings suggest that the mandate for rapid reform embraced by policy reformers in 1999 was neither achieved in a single year nor in ten. In fact, the slow but discernable rate of progress should not come as a surprise. The strategy implied in the NEA of 1999 reflected an ambitious vision of long-term reform of education in Thailand. However, the short-term vision of change may have failed to account for the magnitude and daunting array of constraining factors impacting the implementation of these reforms (e.g., scope of the change, rigidity of financial support, political instability, staff attitudes and skills, bureaucratic structure, corporate culture, complexity of the change). The Ministry of Education’s strategic execution was simply unable to meet the promise of rapid reform, thereby yielding frustration and disappointment.

Scholars have observed that the pace of change in organizational practices seldom meets the expectations of leaders, especially in educational organizations (Cuban, 1990; Fullan, 2007; Hallinger, 2004; McLaughlin, 1990; Tyack & Cuban, 1999). In the words of, Kenichi Ohmae: “The contents of kitchens and closets may change, but the core mechanisms by which cultures maintain their identity and socialize their young remain largely untouched” (1995, p. 30). Or, as characterized by Tyack and Cuban (1999), educational reform is a cyclical process that finds policymakers educators “tinkering towards utopia.”

We further wish to suggest that change implementation in the Thai context faces particular challenges that derive from the cultural and institutional context (Fry, 2002; Hallinger & 2004; Holmes & Tangtongtavy, 1996; Kamoche, 2002; Komin, 1990; Lawler, & Siengthai, 1997; Redmond, 1998). In earlier research on leading change in Thailand, we asked principals to identify successful change strategies. One veteran principal noted: “To bring about change, teachers must know that it is the supreme law of the land. Then as the administrator you must apply the pressure to them constantly” (Hallinger et al., 2000, p. 211). Although perhaps

overstated, the *Supreme Law Strategy* appears to be quite consistent with the top-down approach employed in many Asian countries (Hallinger, 1998; Mok, 2006).

It is certainly consistent with the pronouncements that characterized the initial implementation of educational reform in Thailand. The limitations of this strategy have been described elsewhere (Cuban, 1990; Fullan, 2007; Hall & Hord, 2002; Hallinger, 2010; Kotter, 1996). More specifically, the supreme law strategy does not give sufficient attention to engaging staff interest, building staff commitment and capacity, and transferring ownership from upper levels of the system to the staff in schools. Thus, there is a tendency for implementation progress to stall or even regress when direct pressure is later relaxed or removed. Engaging the interest of staff and providing the necessary training and support *prior* to their “failing to change” would seem to be a prerequisite to moving the reforms forward.

McLaughlin’s conclusion about implementing strategic change in American schools offers apt commentary on this case of educational reform in Thailand. McLaughlin wrote, “You can’t mandate what matters to people, but what you mandate matters” (1990, p. 14). The data presented in this report suggest that the principals believe that the policy framework for education reform in Thailand has been useful (i.e., what was mandated matters to the principals). At the same time, revision of legal structures and Ministry pronouncements to “do it” do not comprise a comprehensive strategy for change. Finding ways to engage the interest of teachers (i.e., making these reforms matter to them), and then developing their capacity to implement the changes represent continuing challenges. Our data indicated that skill development actually lags behind teacher interest in putting these reforms into practice.

In conclusion, we wish to offer two perspectives on the interpretation of these findings. First, we note that the National Education Act of 1999 offered a new vision of education for Thai society. It promised an educational system that would engage Thai children more actively in their learning, and a broader range of Thai adults in the enhancement of their schools’ capacity to deliver quality education. Data presented in this report suggest that this promise is still in the process of being met.

There are measures that can be taken to jump-start reform. This will, however, require policymakers to more explicitly recognize the demands of complex change, and articulate a long-term vision as well as realistic short-term goals for successful implementation. At the national level, policymakers will need to allocate financial resources commensurate in a manner that allows local leaders to deploy these resources so that they reach the right people at the right time. This remains a continuing frustration. At the local level, leadership is needed to build staff interest and capacity, and create ownership among those implementing these reforms. Finally, training for teachers that fosters both deeper understanding and skill development is needed on a broad and continuous basis.

The second perspective we offer towards the interpretation of these findings emphasizes education as a process of cultural transmission. As suggested above in the quotation from Ohmae,

this recognizes the inherently conservative role of schools as social institutions (Cuban, 1990; Ohmae, 1995). As observed by O'Toole (1995):

In all instances in modern society, change is exceptional. When it comes about, it does so primarily as a response to outside forces. . . . In no case does it come readily. . . . A world in which change is the rule would be characterized by chaos, leading to social collapse. Therefore, a society must have one foot permanently on the brake; it must have a predisposition to tradition and conservatism. (1995, p. 253)

Thus, even in the face of the urgent policy prescriptions for change, leaders must balance the contending social-cultural and political forces, and formulate a suitable timeframe for implementation. Therefore, in response to the question framed in the title of this paper, we conclude that the past decade of educational reform in Thailand is more accurately framed within the metaphor of the “impossible dream” than as a “broken promise.” While reformers may have overestimated the rate at which meaningful progress could be achieved, the promises embedded in the NEA of 1999 remain intact and within the sight of educators in Thai schools. As Don Quixote observed, the impossible dream is about a journey that will not be completed today or tomorrow, and is one that requires commitment, effort, patience, and persistence for the long-term.

## References

- Action science. (no date). What is action science? Downloaded Jan. 28, 2011 from <http://www.actionscience.com/actinq.htm>.
- Argyris, C. (1997). Learning and teaching: A theory of action perspective. *Journal of Management Education*, 21(1), 9-27.
- Argyris, C. (1993). *Knowledge for action: A guide to overcoming barriers to organizational change*. San Francisco, CA: Jossey-Bass Publishers.
- Barron-Gutty, A., & Chupradit, S. (2009). *The implementation of the local content provision in Thai basic education*. CELS Centre for Education and Labour Studies, Faculty of Education, Chiang Mai University.
- Bridges, W. (2003). *Managing transitions: Making the most of change*. New York: Perseus Books.
- Bridges, E., & Hallinger, P. (1995). *Implementing problem-based learning in leadership development*. Eugene, OR: ERIC Clearinghouse.
- Bunnag, S. (2000, July 27). All schools set to scrap rote learning. *Bangkok Post*, 5.
- Bunnag, S. (1997, August 5). Poor academic performance of students blamed on rote system. *Bangkok Post*, 2.
- Carnoy, M. (2003) Globalization and education reform. In N. Stromquist and K. Monkman (Eds.), *Globalization and education: Integration and contestation across cultures* (pp. 43-61). Oxford, UK: Rowman and Littlefield.
- Checkland, P. (1981). *Systems thinking, systems practice*. Chichester: Wiley.
- Cuban, L. (1990). Reforming again, and again, and again. *Educational Researcher*, 19(1), 3-13.
- Drucker, P. (1995). *Managing in a time of great change*. New York: Talley House, Dutton.
- Evans, R. (1996). *The human side of school change*. San Francisco: Jossey Bass.
- Fry, G. W. (2002). *Synthesis report: From crisis to opportunity: The challenges of educational reform in Thailand*. Report to ONEC and ADB as part of TA 3585-THA, August 8.
- Fullan, M. (2007). *The new meaning of educational change* (4<sup>th</sup> Edition). New York: Teachers College Press.
- Hall, G., & Hord, S. (2002). *Implementing change: Patterns, principles, and potholes*. Boston: Allyn and Bacon.
- Hallinger, P. (1998). Increasing the organizational IQ: Public sector leadership in Southeast Asia. *The Learning Organization*, 5(4), 176-183.

- Hallinger, P. (2010). Making education reform happen: Is there an “Asian” way? *School Leadership and Management*, 30(5), 401-408.
- Hallinger, P. (2004). Meeting the challenges of cultural leadership: The changing role of principals in Thailand. *Discourse: Studies in the Cultural Politics of Education* 25(1), 61-73.
- Hallinger, P., Chantarapanya, P., Sriboonma, U., & Kantamara, P. (2000). The challenge of educational reform in Thailand: *Jing Jai, Jing Jung, Nae Norn*. In T. Townsend and Y.C. Cheng (Eds.), *Educational change and development in the Asia-Pacific region: Challenges for the future* (pp. 207-226). Lisse, The Netherlands: Swets & Zeitsinger.
- Hallinger, P. & Kantamara, P. (2000). Leading educational change in Thailand: Opening a window on leadership as a cultural process. *School Leadership and Management*. 20(1), 189-206.
- Hallinger, P. & Kantamara, P. (2001). Learning to lead global changes across cultures: Designing a computer-based simulation for Thai school leaders. *Journal of Educational Administration*, 39(3), 197-220.
- Holmes, H. & Tangtongtavy, S. (1996). *Working with Thais: A guide to managing in Thailand*. Bangkok: White Lotus.
- Jackson, D. (2000). The school improvement journey: Perspectives on leadership. *School Leadership & Management*, 20(1), 61-78.
- Jungck, S., & Kajornsins, B. (2003). Thai local wisdom and glocalization. In K. Anderson-Levitt (Ed.), *Local meanings, global schooling* (pp. 26-48). New York: Palgrave Macmillian..
- Kaewdang, R. (1998). *Pathiwat kaansygsaa Thai (Revolutionizing Thai education)*, 4<sup>th</sup> edition. Bangkok, Thailand: Matichon. (In Thai)
- Kamoche, K. (2000). From boom to bust: The challenges of managing people in Thailand. *International Journal of Human Resource Management*, 11(2), 452-468.
- Kantamara, P., Hallinger, P., Jatiket, M. (2006). Scaling-up educational reform in Thailand: Context, collaboration, networks and change, *Planning and Changing*, 37(1), 5-23.
- Ketudat, S. (1984). Planning and implementation of the primary education reform in Thailand. *Quarterly Review of Education*, 14(4), 523-30.
- Klausner, W. (1993). *Reflections on Thai culture* (4th ed.). Bangkok: The Siam Society.
- Komin, S. (1990). Culture and work-related values in Thai organisations. *International Journal of Psychology*, 25, 681-704.
- Komin, S. (1991). *Psychology of the Thai people: Values and behavioural patterns*. National Institute of Development Administration, Bangkok.
- Kotter, J. (1996). *Leading change*. Boston: Harvard Business School Press.

- Lawler, J. J., & Siengthai, S. (1997). Human resource management and strategy in the Thai banking industry, *Research and Practice in Human Resource Management*, 5(1), 73-78.
- Maurer, R. (1996). *Beyond the wall of resistance*. Austin, TX: Bard Books.
- McLaughlin, M. (1990). The Rand change agent study revisited. *Educational Researcher*, 5, 11-16.
- Mok, K.H. (2006). *Education reform and education policy in East Asia*. Oxon, UK: Routledge.
- Mounier, A., & Tangchuang, P. (2009; Eds.). *The quality controversy*. Bangkok, Thailand: Silkworm Books.
- Mulder, N. (1978). *Everyday life in Thailand: An interpretation*. Bangkok, Thailand: Doung Kamol.
- Ohmae, K. (1995). *The end of the nation state: The rise of regional economies*. New York: Free Press.
- ONEC. (1999). Thailand's Education Reform: The National Education Act 1999. Hope for a Better Thailand. Office of the National Education Commission, Thailand. Retrieved May 2010 from <http://www.edthai.com/reform/nov28a.htm>.
- O'Toole, J. (1995). *Leading change*. San Francisco: Jossey Bass.
- Pennington, M. (1999). Asia takes a crash course in education reform. Retrieved May 2010 from [http://www.unesco.org/courier/1999\\_08/uk/apprend/txt1.htm](http://www.unesco.org/courier/1999_08/uk/apprend/txt1.htm).
- Redmond, M. (1998). *Wondering into Thai culture*. Bangkok, Thailand: Redmondian Insight Enterprises.
- Sykes, G., Floden, R., & Wheeler, C. (1997). *Improving teacher learning in Thailand: Analysis and options*. A report to the Office of the National Education Commission (#21/2540), Bangkok, Thailand.
- Swierczek, F. W. (1999). *Key success factors for small and medium business entrepreneurs in Thailand*, Working Paper, School of Management, Asian Institute of Technology, Bangkok.
- Tan, M. (2007). *The politics of the decentralisation of basic education in Thailand*. Unpublished doctoral dissertation, Leeds University.
- The Nation*. (2010, March 31). Bold steps needed in education reform *The Nation*. Retrieved May 2010 <http://www.nationmultimedia.com/home/2010/03/31/opinion/Bold-steps-needed-in-education-reform-30125930.html>.
- The Nation*. (1999, November 8). Thailand's education reform: The National Education Act 1999, Hope for a better Thailand. *The Nation*. Retrieved May 2010 from <http://www.edthai.com/reform/nov28a.htm>.

- Thongthew, S. (1999). Recent developments in education in Thailand. *School Effectiveness and School Improvement*, 10(1), 118-123.
- Tyack, D., & Cuban, L. (1999). *Tinkering towards utopia: A century of public school reform*. Cambridge, MA: Harvard University Press
- Wongwanich, S., & Wiratchai, N. (2004). *Evaluation of learning reform results based on the National Education Act, B.E. 2542, Multi-case study*. Paper presentation at the Fourth International Forum on Education Reform, Bangkok, Thailand, Sept. 8. Downloaded October 2, 2010 from [http://www.worldedreform.com/intercon%204/forth/paper\\_pre.htm](http://www.worldedreform.com/intercon%204/forth/paper_pre.htm)
- Yin, R. (2008). *Case study research: Design and methods*. Thousand Oaks, CA: Sage.

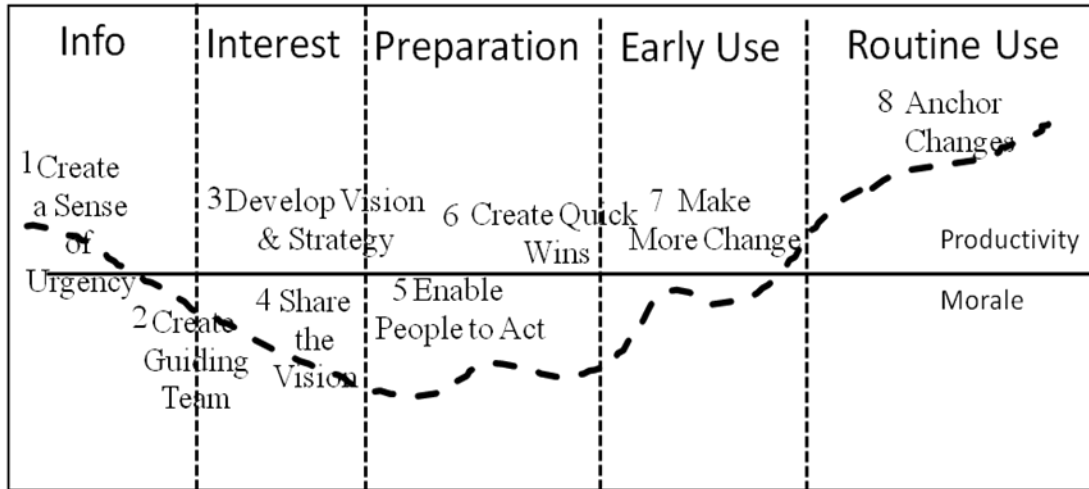
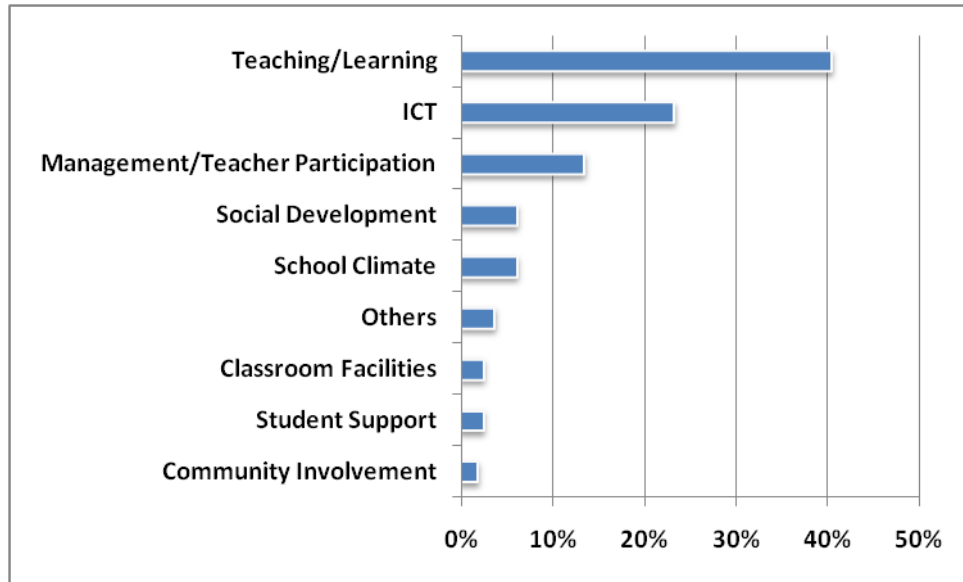
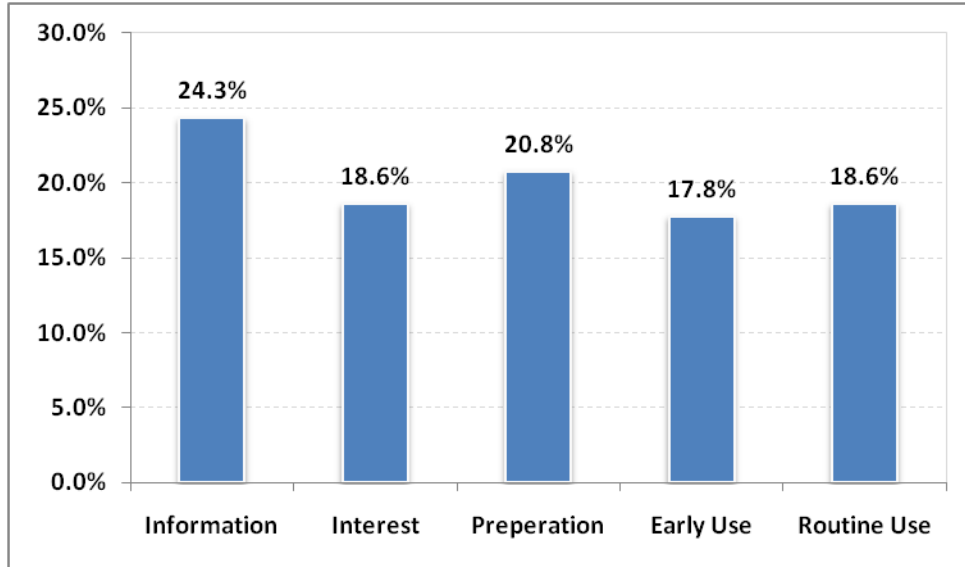


Figure 1. Alignment of Strategic and Personal Stages of Change





*Figure 2.* Focus of Change Implementation Among the Sample of Schools (n = 162)



*Figure 3.* Overall Pattern of Progress in the Sample of Schools (n = 162)

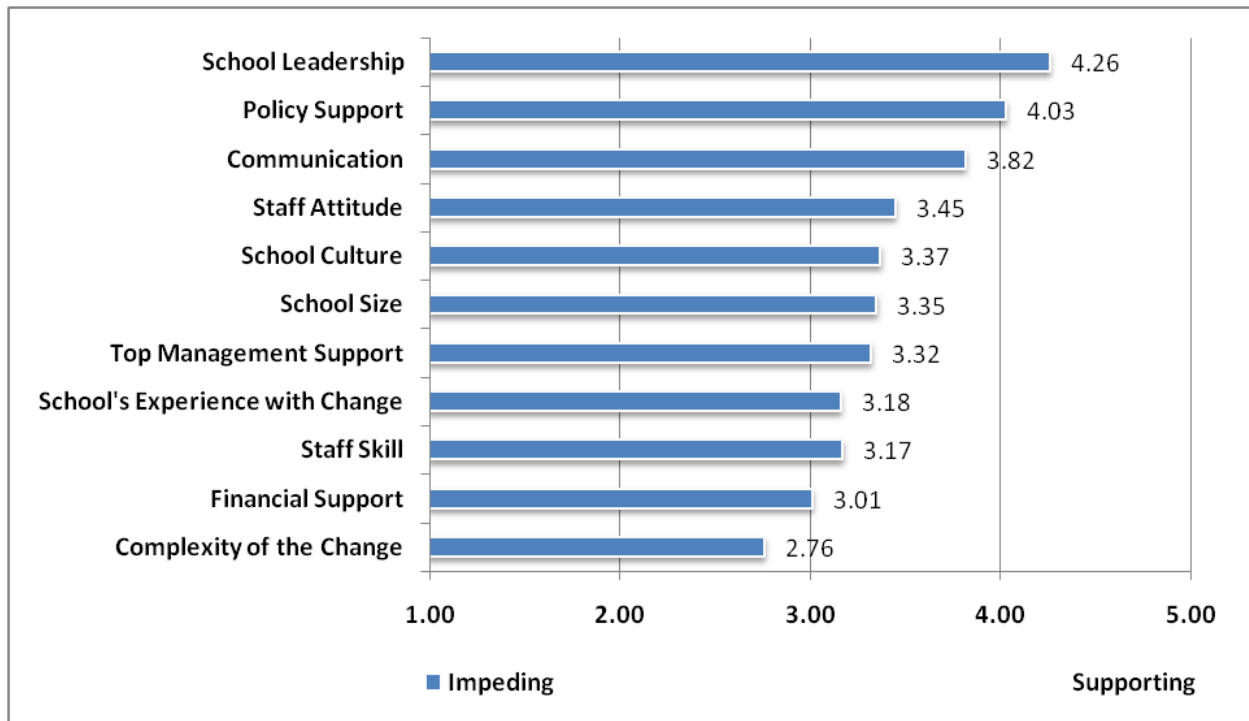


Figure 4. Factors Impacting Successful Change (n= 162)

Table 1

*Stages in the Change Process* (Adapted from Hall and Hord, 2002)

<b>Stage of Change</b>	<b>What people say and what they want. . .</b>
Information	Not interested; don't understand what, why, or how; Need information
Interest	Worried how it will affect me and if I can do it; Uncertain about benefits; Need confidence
Preparation	Interested, but lack confidence; Learning to use, Need pressure and support
Early Use	Starting to use, but afraid of making mistakes; Need feedback and support
Routine Use	Comfortable and effective in using new practices; Need system support to get the best result

Table 2

*Comparison of Focal Change in Overall Sample to Table Cases*

(Overall sample = 1,819, Table cases = 162)

<b>Focal Change</b>	<b>% Overall Sample</b>	<b>% Table Cases</b>
Teaching & Learning	764 (42.0%)	66 (40.5%)
ICT	382 (21.0%)	38 (23.3%)
Management Systems	273 (15.0%)	22 (13.5%)
Other	400 (22.0%)	36 (22.5%)

Table 3

*The Three Major Foci of Change by Four Regions (n = 126)*

<b>Focus of Change</b>	<b>North</b>	<b>South</b>	<b>Northeast</b>	<b>Central</b>	<b>Total</b>
Teaching & Learning	8 (33.3%)	12 (48.0%)	28 (43.1%)	18 (36.7%)	66 (40.5%)
ICT	3 (12.5%)	2 (8.0%)	20 (30.8%)	13 (26.5%)	38 (23.3%)
Management Systems	9 (37.5%)	4 (16.0%)	5 (7.7%)	4 (8.2%)	22 (13.5%)

Table 4

*The Three Major Foci of Change by the Five Stages of Change (n = 126)*

	% Information	% Interest	% Preparation	% Early Use	% Routine Use
Teaching/Learning	29.1%	18.8%	18.9%	15.7%	17.5%
ICT	25.1%	17.2%	19.2%	18.7%	20.2%
Management Systems	18.4%	23.5%	27.3%	16.5%	14.3%

Table 5  
*Average Ratings of Seven Factors in the Three Foci of Change (n = 126)*

<b>Seven Factors</b>	<b>Three Foci of Change</b>	<b>Mean</b>	<b>S.D.</b>
School Leadership	Teaching & Learning	4.2	.81
	ICT	4.4	.58
	Management Systems	4.2	.75
Policy Support	Teaching & Learning	4.0	.91
	ICT	4.1	.95
	Management Systems	3.8	.85
Communication	Teaching & Learning	3.9	.97
	ICT	4.1	1.13
	Management Systems	3.5	1.14
Staff Skill	Teaching & Learning	3.1	.92
	ICT	3.1	.91
	Management Systems	3.4	.78
Change Exper.	Teaching & Learning	3.2	.95
	ICT	3.2	.95
	Management Systems	3.3	.70
Complexity of Change	Teaching & Learning	2.5	.84
	ICT	2.9	.90
	Management Systems	3.0	.81
Financial Support	Teaching & Learning	2.9	1.13
	ICT	3.4	1.06
	Management Systems	2.9	1.03