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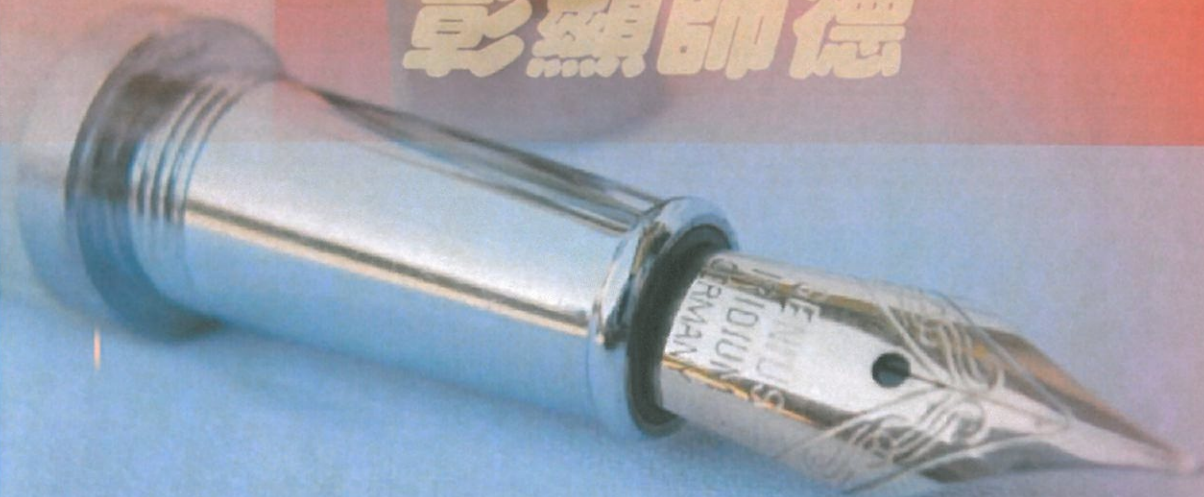
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Leading Change - with a potent guiding team

Executive summary

The department of mathematics had transformed the common teaching behavior successfully from traditional lecturing to interactive learning. The model of John Kotter on leading change (Kotter, 2002) played the central role in shifting teachers' mindset. In the changing process, the establishment of a guiding team – the research and development unit was essential.

The challenge

In the past few years, the department of mathematics had carried out various measures to improve students' ability in mathematics. Most of the measures were resulted in short-term successes but some of them had undermined teachers' insight into teaching method. Year after year, traditional lecturing had become the major teaching behavior among teachers. Though all teachers agreed that there should be a change in teaching method, it could not be made in a short time since many teachers had the following inappropriate beliefs.

Learner diversity had been solved – Since 2004, the school had broken down the class size of mathematics lesson to about 20 to resolve the problem of learner diversity. It was sagacious while small class teaching in Hong Kong was still at issue. But this drastic measure didn't go along with sufficient professional training. There was a common thought that learner diversity had been resolved just because teachers could offer intensive care to individuals. Furthermore teachers found that traditional lecturing didn't cause any maladaptive in small class environment. For these reasons, the acquisition of new teaching methods was never an urgent business of the department.

Everything was resulted from poor intake – Attainment tests showed that our S1 students were poor in mathematics. There was a common thought that only mechanical drilling on textbook exercise could ensure improvement. Lessons were mostly spent on countless mechanical drilling and assessments while interactive learning was believed to be too time consuming. Ironically, even though there was no significant improvement, students' low achievement in various assessments could always be explained as a result of poor intake and insufficient homework assignments. All of these thoughts reinforced teachers' prejudices against students' ability. They also created a working ambiance that was unfavorable to professional reflection on classroom teaching.

We were too busy to share – In order to ensure students' basic competence in mathematics, all mathematics teachers devoted to after-school remedial measures. Teachers definitely had no extra time to think about their normal lesson teaching. In fact, many teachers believed that mathematics teaching had already been routine. Mechanical drilling on textbook exercises was common learning behavior in mathematics lessons. Sharing on teaching experience within the department was not an effective way in acquiring new teaching methods.

The failure

After a detailed explanation, teachers admitted that the beliefs were unfavorable to the development of the department. I believed that the possibility of making change in common teaching behavior was just impeded by heavy workload. As a department head, my immediate task was to redesign the routine to facilitate more experience sharing among teachers. At the same time, features of interactive learning were short-listed[1] to provide teachers concrete goals of making change. Practically, I had taken the following measures.

- Redefined form coordinators as leaders to facilitate sharing on teaching experience;
- Revised the flow of setting exam. paper to encourage discussion on teaching method;
- Increased the number of departmental meetings to speed up the pace of change;
- Developed an inventory for lesson observation[1] to give teachers a clear goal to achieve.

However we tried, without a common consensus on the purpose of making change, the lesson observation inventory didn't steer change in teaching behavior effectively. The number of meetings was increased, but meaningful sharing on interactive learning was very rare. Though the routine had been changed, there was no significant change in teaching method.

The second attempt

Two conditions were essential to leading change – the sense of urgency and immediate actions (Black, 2003). In order to create these two conditions for making change in our common teaching behavior, we set up a guiding team as suggested by John Kotter (Kotter, 2002) and began the change from a comprehensive review on our small class teaching.

Brought about the sense of urgency
↓
Formed a guiding team
↓
Shared the vision and strategy
↓
Communicated for better understanding
↓
Propelled by short- term wins
↓
Anchored the new culture

The flow was modified from the model of John Kotter on leading change[2]

Brought about the sense of urgency – We had been a pioneer in small class teaching for many years. Yet, when we shifted our attention from students' attainment to students' improvement, we were astonished at the ineffectiveness of our teaching. Since the reduction of class size had been the emphasis of the education reform, we suddenly realized that small class learning environment was no longer our distinguishing asset, but our outdated teaching mindset had become our liability. Teachers admitted the needs of making immediate change in teaching method.

Formed a guiding team – The finding was a shock to the department. In the beginning, teachers denied the threat by imputing the ineffectiveness to students' poor learning attitude. I realized that the denial was come from the anxiety on facing change. Though teachers had heard about interactive learning for a long time, many of us had no practical experience on it. So a mutual trust was the foundation of making change. In order to build up a mutual trust in the department, we didn't rely on teacher appraisal system. We had formed a research and development unit (R&D) within the department instead since September 2009 to

provide teachers with immediate support. The R&D was composed of mathematics teachers who were eager for practicing new teaching methods. We met once a fortnight to brainstorm creative teaching methods in a relaxed atmosphere. We discussed our common goals and designed various slogans for promoting interactive learning. Some members were responsible to lead collaborative lesson preparation and to initiate lesson observation. The discussion in the R&D meetings didn't always relate to interactive learning, but it had obviously created a working ambiance that treasured innovative and initiative. These two characters were supposed to be essential to making change.

Shared vision and strategy – Teachers' passion on providing quality teaching was crucial to making successful change in teaching behavior. It could be impelled by adorable shared vision and concrete strategies. So the R&D had concluded our common ground as below:

Our core belief: *Students need both mathematics and a creative use of mathematics;*
Our shared vision: *We equip our God's beloved students to be the solution of the new world;*
Our strategy: *We teach both mathematics and the way of learning mathematics.*

It provided teachers a common consensus on the purpose of making change. We were not going to follow the fashion. The practice of interactive learning was important just because we treasured creativity in our core belief and emphasized the way of learning in our strategy.

Communicated for better understanding – "Ask Inspiringly! Solve Creatively!" was the latest slogan we had designed to remind teachers on our goals of change. The R&D shared the common goals and strategy to all mathematics teachers through different channels including our collaborative lesson preparation and the design of exam. paper. We also discussed with teachers personally on their implementation of the shared vision in their classroom teaching. Every novel idea would be presented to all teachers via email. Compared with the past, teachers were more willing to share with me on their difficulties in classroom teaching. The R&D had cultivated the department to be innovative and initiative. Instead of "lecturing" and "drilling", "questioning" and "meta-cognition" had been our new jargons in communication.

Propelled by short-term wins – Every innovative idea from teachers on interactive learning and every appreciation to our innovative teaching methods had been shared and celebrated as our crucial achievement on making change. An appreciation from a parent to our creative teaching ideas was a recent short-term win that was used to propel the change.

Anchored the new culture – A shift on teaching behavior from lecturing to interactive learning was not our ultimate goal. Teachers should transform their teaching mindset from teacher-centered to student-centered. In fact, a real and sustainable change on teachers' mindset should be based on a working ambiance that respected innovative and initiative. So our real target was to cultivate the department to be innovative and initiative on making change.

Reflection and conclusion

People believed that successful change was usually originated from a review of routine and it should be made gradually. This report revealed that the importance of such "review" might be over-stressed. Change could be made immediately if people had seen its urgency. Before the set up of the R&D – the guiding team, all measures didn't cause any change in teaching behavior. Stewart Black explained that it was typical (Black, 2003). Teachers had already known that interactive learning was better, but adapting new teaching method made teachers felt incompetence and anxious. Teachers would prefer to maintain the worse but skillful teaching method to avoid looking awkward. The R&D had played the central role in helping teachers to see the urgency of changing the teaching behavior from lecturing to interactive learning. It had also built up a mutual trust in the department to facilitate experience sharing.

In addition, a good use of new identity could speed up the pace of change. Teachers had already stuck with original job capacities. New job description on existing position could not help our coordinators to realize the new role on leading change. Contrarily, "R&D's member" was a new identity that allowed teachers to think in a new mindset. As a result, the R&D's members cultivated a working ambiance that treasured innovative and initiative unwittingly.

The R&D's members possessed three qualities that were crucial to our successful change:
- a passion to practice new teaching methods;
- a good communication skill to explain teachers the rationale behind the change; and
- a genial personality to provide teachers a mutual trust for experience sharing.

Teachers' teaching behavior was deeply rooted from their core beliefs on learning. In order to initate change in common teaching behavior, subject panel head must be able to create an aggressive working ambiance with mutual trust so that teachers could review their teaching mindset from time to time. Forming a guiding team with teachers who possessed the above-mentioned three qualities was an effective way to create such working ambiance[3].

A postscript

A few days ago, a mathematics teacher joined our R&D meeting to ask for creative teaching methods for his appraisal on the next day. It was interesting since I was a R&D's member and I was his appraiser as well. *"A teacher invited the appraiser to plan a lesson for his appraisal!"* Were we defining a new approach of professional development? Might it be an expression of our innovative and initiative?

Reference

Black, J.S. & Gregersen, H. B. (2003). *Leading Strategic Change: Breaking Through the Brain Barrier (paperback edition)*. New York City: Financial Times/Prentice Hall.

Kotter, J.P. & Cohen, D.S. (2002). *The Heart of Change: Real-life Stories of How People Change Their Organization (hardcover edition)*. Harvard Business Press.

[3] – See Appendix 3