Developing Teacher Leaders to Facilitate Hong Kong’s Curriculum Reforms: Self-Efficacy as a Measure of Teacher Growth

Kerry J. Kennedy and Sammy K. F. Hui

This article addresses the issue of preparing teachers as curriculum leaders to support the wide-ranging curriculum reforms that characterize societies in the Asian Pacific region. It draws on social cognitive theory and, in particular, on what has come to be called teachers’ sense of efficacy. The study sought to extend that research in a Chinese context.

The results indicate a positive relationship between professional development and the growth of self-efficacy in curriculum leaders. It was recognized, however, that individual curriculum leaders also need a supportive professional community, including specific roles for the principals, if their leadership is to be effective.

Across the Asian Pacific region, the reform of the school curriculum is a major priority (Kennedy, 2005). The driving force in this reform movement is primarily economic: New approaches to understanding human capital formation have led governments to focus on the development of workers and citizens who are creative, innovative, entrepreneurial, and problem solving. Curriculum structures that promote an elitist, academic, examination-dominated, competitive curriculum are seen as an impediment to this objective. Thus, the changes required are much more significant than previous attempts to bring about curriculum reform—they require structural change to education systems and deep cultural change for schools, teachers, and parents. Add to this economic imperative the social and political dilemmas created by terrorism, wars, ethnic conflicts, and new international health issues, and the pressures on the need for a relevant and meaningful school curriculum are even more significant. Economic, social, and political issues combined to make school curriculum reform a strategic issue for the Asian Pacific region.

Although the rationale for curriculum reform is not difficult to articulate, the identification of strategies capable of bringing about curriculum change is more problematic. Curriculum policy is an example of what has been called soft policy (Lorentved & Ackerman, 2004). In general—and this is certainly true in Hong Kong—there are no laws, no compliance mechanisms, and no regulatory frameworks that govern the implementation of any new
curriculum. On the other hand, there is an extraordinary reliance on the goodwill, skills, knowledge, values, and commitment of schools and their communities. Curriculum change therefore relies on people who can take up the challenges in their communities, in their classrooms, and—perhaps most important—in their hearts. This makes curriculum change a people-oriented process that is fragile, demanding, and unpredictable. The one certainty that prevails is that without people who are skilled and committed to the reform agenda, there will be little change in classrooms. Such people are rarely in place, ready and waiting to participate in new ventures and new ways of doing things, and they are not equipped with new skills, attitudes, and values about curriculum, teaching, and assessment. Rather, education systems must create such people and put them on the front line to ensure that a reform agenda can be carried forward. It is only when a reform agenda comes alive in the classroom that any success can be claimed. Policy objectives remain hollow without such a measure of success.

It is against this background that the chief executive of the Hong Kong Special Administration Region (SAR) announced a raft of initiatives in his 2001 policy address to enhance the quality of teachers and teaching. One of these initiatives was the creation of an additional teaching post: curriculum officer, “to lead internal curriculum development” in primary schools (Chief Executive, 2001). Subsequently titled primary schoolmaster/schoolmistress (curriculum development)—or PSM (CD)—and assistant primary schoolmaster/schoolmistress (curriculum development), these were to be senior positions of limited duration (5 years) with a significant range of responsibilities for advancing curriculum reform in Hong Kong schools. These responsibilities were subsequently set out in some detail by the Education and Manpower Bureau:

The PSM (CD) will serve as a curriculum leader to help the school in reforming the curriculum in accordance with the educational aims to promote whole-person development and lifelong learning. The duties of the curriculum leader in more specific terms are:

(i) To assist the school head to lead and coordinate whole-school curriculum planning so that each school can strike a balance between the central curriculum, the mission of the schools and learning needs of students according to the recommendations of the curriculum reform;

(ii) To support the school head in planning and coordinating assessment policy and assessment practices;

(iii) To lead teachers/specialist staff in improving learning and teaching strategies and assessment practices through staff development days, collaborative lesson preparation, selection and development of appropriate learning and teaching resources, etc.;

(iv) To promote a professional exchange culture within the school and to establish links with other schools for sharing of experiences in learning, teaching and curriculum development; and
(v) To take up a reasonable teaching load (which should be less than 50% of the average teaching load of a teacher of the school) so that the curriculum leader can keep close contact with the real situation of daily classroom learning and teaching. (Education and Manpower Bureau, 2003)

To assist developing the capacity of PSM (CD) appointees for what can only be described as an onerous role, participation in a range of education and training opportunities was a condition of taking up the post. Some of these opportunities were provided by Education and Manpower Bureau (2003); some were provided online; and others were the subject of tender involving private providers.

The focus of this article is on the tendered component and its effectiveness in contributing to the development of newly appointed curriculum leaders. The reason for this focus is to investigate both the nature of curriculum leadership and its growth and development in a cohort of teachers who are in the process of taking on curriculum leadership responsibilities. Specifically, the study to be reported here

- investigated the impact of specific educational programs on the teacher participants;
- assessed the importance of teacher self-efficacy as a construct that can help to elucidate the characteristics of teacher leadership in a Chinese context; and
- suggested some possible directions for future research in the area of self-efficacy and teacher leadership.

Creating Curriculum Leaders—What Counts as Success?

The leadership literature as it relates to schools offers only limited support for addressing the specific issue of curriculum leadership as it has been designed for Hong Kong’s newly appointed curriculum leaders. At one level the literature focuses on the culture of schools as the key issue confronting school leaders. School culture is usually seen as a constraining factor when it comes to reform efforts, and unless it is systematically addressed, no amount of leadership will bring about change (Sarason, 1996). The issue of school culture has been addressed by a number of writers (Barth, 2002; Fullan, 2001a, 2001b; Peterson & Deal, 2002). Fullan (2001b) has highlighted the significance of reculturing as a key process that school leaders must embrace if change is to be deep and lasting. Reculturing involves changing values, directions, practices, and rewards, especially in the context of developing schools as learning communities. This requires proactive leadership, but it is leadership of a specific kind. Fullan (2001b) asserts that “I know of no improving school that doesn’t have a principal who is good at leading improve-
ment” (p. 141). This focus on the principal as the key change agent in the school is shared by a number of writers (Donaldson, 2001; Elmore, 2000; Leithwood, 2000), and it is not confined to North America (Watkin, 2000). Principal leadership, therefore, as the key to school reculturing, has received a considerable amount of attention in the literature.

For the purposes of the present study, however, the kind of leadership exercised by principals is important only in as much as it creates the broad educational environments in which the newly appointed curriculum leaders work. The expectations of curriculum leaders are quite different from those of principals. Principals focus their efforts at the macrolevel—their goal is to energize the whole school for change and reform. Curriculum leaders work at a different level—perhaps it is best understood as microlevel leadership, which involves working directly with individual teachers to bring about change at the classroom level. Curriculum leaders may work within the framework of a whole-school plan for curriculum change, but their basic purpose is to assist colleagues to change classroom practice. This microlevel leadership is different in purpose, in the way that it is exercised and in its expected outcomes from those of the principal. It is closer to what has been called teacher leadership, as described by one principal in a U.S. school (Tucker, 1999):

> Our experience has been that teacher leaders can make a dramatic difference in how a school works. I don’t think you move a school forward without strong teacher leadership, but it’s a complex matter for them. Teacher leaders are in their classrooms working hard with students every day, but they must also take responsibility to lead and encourage their peers if the expectation is school-wide change.

The last sentence in the quotation is an exact description of curriculum leaders in Hong Kong schools—they continue to teach for up to 50% of their time while carrying out their curriculum leadership responsibilities for the remainder of the time. They are both teachers and leaders. There is an extensive range of literature on teacher leadership, and it points to broad support for what might be called leadership from the bottom (Ash & Persall, 2000; Barth, 2001; Blegen & Kennedy, 2000; Buckner & McDowelle, 2000; Lieberman, 1992; Medina & St. John, 1997; Moller & Katzenmeyer, 1996). There is no general agreement on the roles of teacher leaders—the contexts in which they work often determine what they do on a day-to-day basis. Yet, as Lord and Miller (2000) have pointed out,

teacher leaders are different from administrators, the obvious leadership path in the education profession. . . . This means that teacher leaders operate in a different professional space from their teaching colleagues. . . . Teacher leaders stand out as an interesting experiment. They are teachers, one of the rank and file. Yet, they are also leaders, somehow set apart from other teachers. (p. 7)
Teacher leaders are not born—they are created. As pointed out by Lord and Miller,

preparing highly skilled classroom teachers to be effective teacher leaders takes training... as well as a system of supports including accountability, assessment and professional development. Recruiting skilled teachers to these leadership positions is not, in itself, a guarantee that they will be able to foster broader change. (p. 7)

A key issue for the Hong Kong curriculum leadership initiative was to determine what kind of preparation of curriculum leaders would be most effective and how would such effectiveness be judged? The Education and Manpower Bureau proposed 136 hours of in-service provision for curriculum leaders. The full program consisted of the following components (Tsui, 2004):

A. Curriculum reforms in Hong Kong (27 hours)
B. Web-based course on curriculum reform (20 hours)
C. Curriculum planning and design, learning theories, learning and teaching strategies, action research, professional development and organizational learning, workshop on change agents in curriculum reform, and building a learning community (68 hours)
D. Assessment for learning (9 hours)
E. Learner diversity (9 hours)
F. Winding-up session (3 hours)

This article is concerned with Component C—which was tendered for competitive bidding.¹ Table 1 summarizes the content of the educational intervention, packaged into two separate courses (hereafter, C1 and C2). The former focused on theory whereas the latter was practical and required participants to develop and implement an action research project in their schools. The foci of these two courses were determined to a large extent by the requirements of the tender process, although the specific details were determined by the course provider—the Hong Kong Institute of Education. Once the content had been decided, as shown in Table 1, the impor-

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¹ Table 1. Summary of the Two Courses Undertaken by Curriculum Leaders

<table>
<thead>
<tr>
<th>Course 1</th>
<th>Course 2</th>
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<tbody>
<tr>
<td>Focus: New ideas, new challenges, new thinking, and new skills to bring</td>
<td>Focus: Action research project, with improved student learning</td>
</tr>
<tr>
<td>changes to classroom practice</td>
<td>Sessions 1/2: Action research and reflective practices</td>
</tr>
<tr>
<td>Sessions 1/2: Curriculum planning and design</td>
<td>Sessions 3/4: Professional development and professional learning</td>
</tr>
<tr>
<td>Sessions 3/4: Learning theories</td>
<td>Sessions 5/6/7/8: Tutorials</td>
</tr>
<tr>
<td>Sessions 5/6: Learning and teaching strategies</td>
<td>Sessions 9/10: Presentations of project outcomes</td>
</tr>
<tr>
<td>Sessions 7/8: Presentations of project outcomes</td>
<td>School visits</td>
</tr>
</tbody>
</table>
tant issue was to determine how best to measure the success of the courses and, in particular, the extent to which it led to growth in capacity of the newly appointed curriculum leaders.

This was an important issue for two reasons. First, professional development activities of this kind often do not get evaluated, especially in terms of outcomes for participants. Second, and perhaps more important, these outcomes needed to focus on the growth of the curriculum leaders and their potential to undertake the kind of job for which they were employed. Keeping in mind that these were teacher leaders rather than administrative leaders, it was not only traditional leadership skills that were being developed; rather, it was a holistic capacity, which included being a good teacher as well as a mentor, a colleague, a strategic thinker, and a planner. Such a broad capacity—or set of skills—almost seemed to defy specific measurement, but one theoretical clue is available in Bandura’s (1997) work on self-efficacy:

People make causal attributions to their own psychosocial functioning through mechanisms of personal agency. Among the mechanisms of agency, none is more central or pervasive than beliefs of personal efficacy. Unless people can produce desired effects by their actions, they have little incentive to act. Efficacy belief, therefore, is a major basis of action. (pp. 2–3)

There is an extensive literature on self-efficacy research in general (Bandura, 1997) as well as its application to educational settings in particular (Gibson & Dembo, 1984; Henson, 2001; Hoy & Woolfolk, 1993; Looney & Wentzel, 2004; Soodak & Podell, 1996; Tschannen-Moran & Woolfolk Hoy, 2001; Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998; Woolfolk & Hoy, 1990). Hoy (as cited in Shaughnessy, 2004) has explained that teacher self-efficacy should not be confused with teacher effectiveness, pointing out that “Bandura would prefer the terms teachers’ sense of efficacy, self-efficacy of teachers, instructional efficacy, teachers’ efficacy beliefs, or teachers’ perceived efficacy” (p. 154). This highlights the important point that teacher self-efficacy is concerned not so much about possessing a specific set of skills or understandings; rather, it is concerned with what people believe about their capacities to influence the world around them. As Bandura (1997) puts it, “unless people believe they can produce desired effects, they have little incentive to act. . . . Efficacy belief. . . . is a major basis of action. . . . People guide their lives by the beliefs of personal efficacy” (p. 2).

Bandura identified four main sources of information that enable people to develop their personal efficacy beliefs. These are summarized in Table 2.

Information itself does not influence efficacy beliefs—information needs to be processed, weighted, and integrated so that personal judgments about self-efficacy can be made (Bandura, 1997):

Efficacy beliefs are the product of cognitive processing of diverse sources of efficacy information conveyed enactively, vicariously, socially, and physiologically. Once formed, efficacy beliefs contribute to the quality of human functioning in diverse ways. (p. 115)
Table 2. Summary of Bandura's Sources of Personal Efficacy Beliefs

<table>
<thead>
<tr>
<th>Source</th>
<th>Description</th>
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<tbody>
<tr>
<td>Enactive mastery experiences</td>
<td>These provide indicators of capability.</td>
</tr>
<tr>
<td>Vicarious experiences</td>
<td>These can help to develop competencies and enable comparison with the achievements of others.</td>
</tr>
<tr>
<td>Verbal persuasion</td>
<td>This can help to convince people that they have certain capabilities.</td>
</tr>
<tr>
<td>Physiological and affective states</td>
<td>These allow people to judge their capabilities, their strengths, and their vulnerabilities.</td>
</tr>
</tbody>
</table>

*Note: Based on Bandura (1997).*

Teacher self-efficacy has been the subject of extensive research, with the focus on the extent to which teachers believe that they can affect what happens in their classrooms—instructional strategies, classroom management, and student engagement (Tschannen-Moran et al., 1998; Tschannen-Moran & Woolfolk Hoy, 2001). Recently, however, it has been shown that teacher self-efficacy can be regarded as an antecedent related to a range of variables external to classrooms. Looney and Wentzel (2004) found that when teachers are part of a professional community where discussion of teaching, collaborative classroom observations, and other cooperative activities take place, their efficacy beliefs become positive. Reyes, Scribner, and Scribner (1999) found that teachers with high levels of self-efficacy have a high motivation for learning and sharing their experiences with colleagues. Ebremer (2003) has shown that a teacher's level of self-efficacy can be enhanced when the teacher believes that the principal is supportive of efforts to improve teaching and learning and takes a genuine interest in "the core business of the teacher's classroom" (p. 140).

This research suggests that teacher self-efficacy is a robust construct that can prove useful in the first instance at least as an outcome measure for the courses undertaken by the PSMs (CD). It also had some potential for subsequent investigations. It was clear from the literature that teacher leaders with high levels of self-efficacy would be well equipped to undertake their assigned roles—excellent classroom teachers with a capacity to work with colleagues to change existing practice. At the same time, it is known that, unless teacher leaders conduct their work in supportive contexts (e.g., the existence of professional communities and the support of the principal), their level of self-efficacy may not be sustained. With a focus on teacher self-efficacy and its growth in curriculum leaders, it was possible to develop a longitudinal research agenda that would bring the personal attributes of teacher leaders with the organizational structures of schools. The research reported here represents the first step in that process. The initial tasks were to develop a research design that would investigate the development of teacher self-efficacy in curriculum leaders and to develop a valid and reliable measure of self-efficacy for
use within a Chinese context. The remainder of this article focuses on the first of these tasks and reports on the results of the study. The instrument development process has been reported elsewhere (Kennedy & Hui, 2004).

**Methods**

**Research Design**

This study used a one-group pretest–posttest design (Best & Kahn, 1998). This is a preexperimental design in which a pretest collects baseline data, against which the posttest results, administered following the treatment, can be compared. This measurement allows for any growth to be measured, and it is assumed that such growth can be attributed to the treatment. In the current study, this design was used with each course so that there were four measure points for each group, corresponding with the beginning and end of each course. This added a time series dimension to the study. Such a design, however, contains a number of threats to internal validity, such as maturation and testing (Campbell & Stanley, 1963). *Maturation* refers to the fact that the participants may change biologically and psychologically over a period of time, and these changes may be confused with the effect of the independent variables under consideration. *Testing* refers to the fact that the process of pretesting may have produced a change in the participants being tested, making them proficient in the posttest performance. These issues need to be taken into consideration when interpreting the results.

**Sample**

In sum, 228 newly appointed curriculum leaders (PSM-CDs) undertook both training programs (C1 and C2) as outlined in Table 1. Of these, 83% were female and 17% were male. Teachers ranged in age from 26 to 58 years old, with an average age of 37 (SD = 6.7) They came from a range of schools across Hong Kong, including aided schools (81%),

2 government schools (6%),

3 and special schools (12%). Of these schools, 60% were whole-day schools; 23% were schools whose timetable was scheduled in the morning only; and 175 were schools whose timetable was scheduled only in the afternoon.

**Instrument**

There are a number of instruments available for measuring teacher self-efficacy. For the purposes of this study the 12-item short-form Teachers' Sense of Efficacy Scale (TSE) was selected, developed by Megan Tschannen-Moran and her associates at the Ohio State University (Tschannen-Moran et al., 1998; Tschannen-Moran & Woolfolk Hoy, 2001). A Chinese version of the TSE was constructed and is referred to as the C–TSE. The instrument
asked the respondents to indicate, on a 9-point Likert scale, how much they can do with each of the 12 items. Responses ranged from *nothing* to *very little*, *some influence*, *quite a bit*, and *a great deal*, with numerical values of 1 to 9 assigned for later analysis. The instrument development process has been reported elsewhere (Kennedy & Hui, 2004). It is important to note here, however, that with this sample of Chinese teachers, C–TSE is loaded on two factors rather than three, as in the original TSE (Tschannen-Moran & Woolfolk Hoy, 2001). The first factor consisted of eight items, and the second factor consisted of four items. The eight-item scale included items that originally were classified as two separate four-item scales: student engagement and instructional strategies. The two factors explained 59.6% of the total variance (the first factor explained 48.3%, and the second factor explained 11.3%). These results suggest that for this sample of Chinese teachers there is no clear distinction between efficacy for student engagement and efficacy for instructional strategies, as was the case for samples of Western teachers whose self-efficacy had been measured by the TSE. In addition, following Tschannen-Moran and Hoy (2001), a factor analysis was conducted on the 12 items to test for a single underlying teacher self-efficacy construct. A single factor was identified, as it had been part of the process for developing the English version of TSE; but for C–TSE, the single-factor solution accounted for only 46.32% of the variance, compared to 68% in the original study. Results for this study are reported for the general teacher self-efficacy construct as well as the two subscales. The implications of these results are the subject of ongoing research.

**Administration of the Instrument**

The C–TSE was administered at four points during the two courses undertaken by the participants. The order of the courses was reversed for different groups, as shown in Table 3.

In sum, 50% of participants experienced the courses as C1 followed by C2, whereas the other 50% experienced the reverse order—C2 followed by C1. The instrument was administered at the beginning and at the end (as pretest and posttest) of each course. Therefore, for the total set of course experiences, there were four measurement points (M1 to M4), and M1 was taken as a baseline measure. For Group A, the response rates were 69.8% and 63.5%

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<table>
<thead>
<tr>
<th>Table 3. Training Sequence and Measurements for Each Group of Curriculum Leaders</th>
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<tr>
<td><strong>Group</strong></td>
</tr>
<tr>
<td>A</td>
</tr>
<tr>
<td>B</td>
</tr>
<tr>
<td>Measures</td>
</tr>
</tbody>
</table>
for C1 and 90.9% and 74.4% for C2 in the pretests and posttests, respectively. For Group B, the response rates were 88.8% and 57.9% for C2 and 48.0% and 55.9% for C1 in the pretests and posttests, respectively.

Analysis

To test whether the courses helped the curriculum leaders develop a high level of self-efficacy, group mean scores and standard deviations for the general factor and the subscales of C–TSE were computed for each measurement point. A one-way analysis of variance was run using group mean scores for the M1–M4 measurement points. The results of these analyses for Groups A and B are reported in Tables 4 and 5, respectively.

Generally speaking, curriculum leaders developed a high sense of efficacy throughout the program, and some of the gains were found to be statistically significant. Post hoc pairwise range tests and multiple comparisons (Bonferroni and Tukey’s a) further indicated the group means of M1 in C–TSE and for the Efficacy in Learning and Teaching subscale were significantly different from those of M3 and M4. Effect sizes for the gains in these two scales from M1 to M4 ranged from 0.63 to 0.89, which were considered important (> 0.50).

The scales were further tested under a mixed design analysis of variance with training sequence and point of measurement as the between-group variables. The results are shown in Table 6.

Significant impacts were found only across the points of measurement. Effects of the training sequence and its interaction with point of measure remained insignificant.

Table 4. Means, Standard Deviations, and Significance Tests for Group A on Chinese Teachers’ Sense of Efficacy Scale and Subscales

<table>
<thead>
<tr>
<th>Course 1</th>
<th>Course 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pretest (M1)</td>
</tr>
<tr>
<td>Teachers' Sense of Efficacy Scale</td>
<td>6.70 (0.88)</td>
</tr>
<tr>
<td>Efficacy in Teaching and Learning</td>
<td>6.65 (0.92)</td>
</tr>
<tr>
<td>Efficacy in Classroom Management</td>
<td>7.00 (1.13)</td>
</tr>
</tbody>
</table>

Note: *By one-way analysis of variance; †From M1 to M4.
Table 5. Means, Standard Deviations, and Significance Tests for Group B on Chinese Teachers' Sense of Efficacy Scale and Subscales

<table>
<thead>
<tr>
<th></th>
<th>Course 2</th>
<th></th>
<th>Course 1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pretest</td>
<td>Posttest</td>
<td>Pretest</td>
<td>Posttest</td>
</tr>
<tr>
<td></td>
<td>(M1)</td>
<td>(M2)</td>
<td>(M3)</td>
<td>(M4)</td>
</tr>
<tr>
<td></td>
<td>M (SD)</td>
<td>n (SD)</td>
<td>M (SD)</td>
<td>n (SD)</td>
</tr>
<tr>
<td>Teachers' Sense</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>of Efficacy Scale</td>
<td>6.78</td>
<td>93 (0.86)</td>
<td>6.96</td>
<td>60 (0.88)</td>
</tr>
<tr>
<td>Efficacy in</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teaching and</td>
<td>6.69</td>
<td>94 (0.87)</td>
<td>6.95</td>
<td>61 (0.82)</td>
</tr>
<tr>
<td>Learning</td>
<td>6.98</td>
<td>94 (1.17)</td>
<td>7.02</td>
<td>61 (1.17)</td>
</tr>
<tr>
<td>Classroom</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Management</td>
<td></td>
<td></td>
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</tbody>
</table>

Note: *By one-way analysis of variance; bFrom M1 to M4.

Discussion

First, significant gains in TSF and the subscale Efficacy in Learning and Teaching highlighted the substantial impact of the program in developing teacher self-efficacy. Results suggest that the training—which provided the PSMs (CD) with up-to-date curriculum and learning theories and practices, as well as hands-on experience of curriculum research—encouraged curriculum leaders to believe in their capacity to perform well in school-based curriculum development. Starting from the first training intervention (M1) and moving to the next intervention (M3), they had developed a high level of beliefs in their capacity to organize and execute the courses of action required

Table 6. Summary Statistics for a Mixed Design Analysis of Variance of Chinese Teachers' Sense of Efficacy Scale and Subscales

<table>
<thead>
<tr>
<th></th>
<th>Course Sequence (A/B)</th>
<th>Points of Measurement (M1–M4)</th>
<th>Interaction of Course Sequence and Point of Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean Square F p</td>
<td>Mean Square F p</td>
<td>Mean Square F p</td>
</tr>
<tr>
<td>Teachers' Sense</td>
<td>0.383 0.584 .445</td>
<td>8.048 12.285 .000</td>
<td>0.283 0.432 .730</td>
</tr>
<tr>
<td>of Efficacy Scale</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Efficacy in</td>
<td>0.637 0.953 .329</td>
<td>10.266 15.352 .000</td>
<td>0.362 0.541 .654</td>
</tr>
<tr>
<td>Teaching and</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learning</td>
<td>0.240 0.208 .648</td>
<td>4.761 4.137 .006</td>
<td>0.463 0.402 .751</td>
</tr>
<tr>
<td>Efficacy in</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Classroom</td>
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<tr>
<td>Management</td>
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to manage prospective situations (Bandura, 1977, 1997). It seemed that at the
end of these courses, curriculum leaders were in a better position to perceive,
regulate, and evaluate their own behavior in the school environment.

Second, results from the mixed design analysis of variance suggest that cur-
criculum leaders benefited considerably irrespective of the sequencing of the
courses. In other words, whether course participants experienced first theo-
ries (C1) and then practical tasks (C2) or vice versa, they benefited from the
exposure. This sense of efficacy was not limited by the arrangement of the el-
ements that made it up. It seemed to have a high generalizing power that ben-
efited from exposure to new ideas irrespective of the context in which those
ideas were encountered.

Conclusion

In the light of these results, developing teacher self-efficacy appears to be an
important objective. It seems that teacher leaders can develop deep beliefs in
their capacity to effect change in their own classrooms and, subsequently,
their schools. If, on returning to their schools, these teacher leaders can
maintain these beliefs and then turn beliefs into action, it can be expected that
the kinds of changes envisaged by the current curriculum reform agenda in
Hong Kong will be facilitated. This process of developing highly efficacious
teacher leaders may be particularly important in a Chinese context where the
external environment is seen to exert such an impact on what individuals be-
lieve they are capable of achieving (Bond, 1986). Teachers need to believe
that the professional world around them is one in which they can exert an in-
fluence and make a difference; otherwise, they are likely to give up the task
of curriculum leadership, resigned to the fact that there are too many con-
straints in the external environment.

In another sense, the identification of teacher self-efficacy as an important
outcome measure represents the beginning rather than the end of attempts to
provide effective leadership for curriculum reform in Hong Kong schools.
What do highly efficacious teachers do when they return to their schools?
How do they go about the task of moving their schools forward with curricu-
ulum reform? These are important questions that require addressing, and they
need a different kind of research. Wheatley (2000), for example, has argued
that “the teacher efficacy field needs a new theory of teacher efficacy, one in
which the traditional independent sense of teacher efficacy is interwoven with
a broader, socially constructed or independent sense of teacher efficacy” (p.
24). This is consistent with what has been referred to in this article as the an-
tecedent variables influencing self-efficacy—variables that come from else-
where in the organization rather than from within individuals’ own concep-
tions. Such an approach would go hand in hand with Looney and Wentzel’s
(2004) call for emphasis on using qualitative research to understand how
teacher self-efficacy works in real-world contexts. In terms of the current
study, this would mean following up the teacher leaders who have completed the courses and documenting in a systematic way how they went about the practical work of curriculum leadership and with what success. Thus, with teacher self-efficacy as a starting point, there is now the opportunity to move forward with new research and new understandings that have the potential to unmask some of the complexities of organizational structures and processes in which curriculum leaders inevitably have to work.

In this study, teacher self-efficacy was used as an outcome measure. Yet, as noted in a number of studies, self-efficacy also has considerable power as a predictor variable. Based on existing literature and on the need to assess how effective curriculum leaders are when they return to their schools, it would be possible to develop new models for testing in the future. For example, it has been shown that the self-efficacy of curriculum leaders can continue to be enhanced when they return to schools under two conditions: when they have the support of the principals and when they are part of a professional community that values interaction, experimentation, and collegial work practices. Under these conditions it might be expected that curriculum leaders will achieve some success. Yet these successes need to be documented, whether they are in terms of overall commitment to curriculum reform or improved student learning outcomes. It may be, too, that the work of curriculum leaders will enhance collective teacher efficacy (Ross & Gray, 2004) so that what starts out as an individual-level characteristic ends up as an organizational characteristic. The current research has therefore suggested a number of directions for future research: directions that have the potential to advance curriculum reform for the benefit of both students and society as a whole.

Notes

1. A full description of the final form this component took as a 68-hour educational intervention can be found at http://ei-lab.ied.edu.hk/elprogram/CL04/index.html.
2. Schools operated by a voluntary body but financed largely by the government.
3. Schools operated and financed directly by the Education and Manpower Bureau of the Hong Kong SAR Government.

References


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