

Linking Self-evaluation and Strategic Planning with Staff Development

Abstract

This paper aims to examine the predictive relationships of self-evaluation capacity and staff competency on the effect of strategic planning in aided secondary schools in Hong Kong. A quantitative questionnaire survey was compiled to collect data from principals of the participating schools. Confirmatory factor analysis and reliability tests were applied to confirm the constructed validity and reliability of the survey instrument. Multiple regression analysis was applied to explore the relationships among variables. The capacity of self-evaluation mechanisms and staff competency are identified as predictive factors for effective strategic planning. An effective quality assurance mechanism could support the sustainable development of school organization. School administrators could embed self-evaluation mechanisms into strategic planning and provide staff development to improve the quality assurance systems in their schools.

Introduction

Institutionalising effective strategic planning not only assists school administrators to understand the situations of the internal and external organisational environment of their school, but also supports the coordination of different management tasks for improving the quality of teaching and achieving school objectives (Hodgson and Chuck, 2003; Taylor, and Machado and Peterson, 2008; Ewy, 2009). In response to the demand for the provision of competitive human capital to support regional economic development, the Hong Kong government has formulated several education policies to improve school education (Education Commission, 1997, 2000). Schools in Hong Kong have long been faced with a series of new policies generated by education reform. For instance, a quality assurance mechanism in the form of school self-evaluation (SSE) and external school review (ESR) has been imposed on the Hong Kong school system to enhance education quality (Education Commission, 1997). A new senior secondary curriculum is now being implemented in secondary schools to improve student learning. Schools are struggling with this reform and are tasked with reducing their academic structure from 7 to 6 years. The latter challenge has to contend with the reduced number of students in Hong Kong, which has made schools fiercely competitive with regard to student admission students; this competitive market has indirectly increased the power of parental choice, which schools also have to take into account. These changes constitute a concrete threat to school sustainability, if schools fail to formulate strategic plans and implement them effectively.

Strategic planning plays an important role in facilitating the sustainable development of school organisation; it helps schools to survive in a turbulent policy environment by coping with the changes and challenges generated by government policies and market forces. Without effective planning, schools' missions cannot be achieved and the quality of education cannot be improved, leading to a high risk of failure for education reforms and in turn a waste of government resources (Hodgson and Chuck, 2003, p.10). Schools in Hong Kong have been required to formulate strategic plans and conduct school self-evaluation (SSE) since the implementation of the school-based management (SBM) policy in 2000. The SBM policy also recommends that school administrators involve their teachers in decision-making and school planning (Cheng, 2008a), along with providing more professional development training to teachers. If schools really want to survive in the competitive market and sustain themselves throughout the reform, they should consider formulating effective strategic plans and implementing strategic management. Exploring the factors that contribute to the formulation of an effective plan becomes significant to school management practices and school-based

policy making. This study attempts to examine the effect of capacity of self-evaluation and staff competency on improving the effectiveness of strategic planning, and recommends practical steps for improving the mechanism of school strategic planning for school administrators.

Literature Review

Planning and evaluation in the quality assurance system and support for teacher professional development are conceptualised by Sun, Creemers and de Jong (2007) as contextual factors for school effectiveness. Strategic planning plays an important role in providing direction for sustainable school development in scanning the organisational environment and reviewing internal strengths and weaknesses in order to prioritise action planning (Taylor, Machado & Peterson, 2008). School self-evaluation (SSE) is the internal review of the quality assurance mechanism that supports the formulation of strategic plans by providing information to measure and judge the effectiveness of schools' performance. Effective strategic planning should therefore be geared to the evidence-based and data-driven evaluation process. In addition, the quality of the evaluation report and the strategic plan depends on teachers' professional competencies in evaluation and planning.

Quality assurance model

The Hong Kong government has adopted both external review and school self-evaluation for the quality assurance model, in which the models can be explained by the theory of tight and loose coupling (Weick, 1976). Coupling has been used to describe the relationships between schools and the central district authority (Fennell, 1994). Tight coupling describes the hierarchical structures built to facilitate and enhance the achievement of school goals. It refers to the formal, prescribed and enduring frameworks which include the roles, rules, regulations, procedures and authority relationship that rigidly control the schools (Firestone & Wilson, 1985). Tight coupling results from quality control through external review based on a set of pre-specific performance indicators. Loose coupling describes the autonomy of teaching as a profession, and the use of discretion in performing work based on educational judgment. The professional competence of educators and teachers should be recognised by the governance body and reflected in a relationship of interdependence between the school and the central district authority. Through the mechanism of loose coupling, schools are disconnected from the authority structure of the Education Bureau and permitted to exercise discretion. The logic of this argument suggests a quality assurance model in which school self-evaluation and strategic planning are linked to areas of professional expertise and specialisation in the school organization (Mulford, 2005).

Loose coupling and tight coupling often appear together in current literature and are used in a relative sense. Numerous researchers (Willower, 1982; Mickey, McDonald & Bloom, 1983; Herriot & Firestone, 1984) have indicated that schools and Education Bureau are better understood as a combination of loose and tight coupling, although referring to different relationships in different situations. Peters and Waterman (1982) identified simultaneous loose-tight coupling as one of the features of the best-run American corporations. Sergiovanni (1984) found that excellent schools were both tightly coupled and loosely coupled based on an analysis of the literature surrounding school effectiveness.

Many countries have adopted both external and internal review in their quality assurance system, including New Zealand (Sakura, 2007), Thailand (Pitiyanuwat, 2007), Scotland (Croxford, Grek & Shaik, 2009) and Australia (Gurr 2007). In Singapore, self-evaluation is coupled with external validation for schools to engage in learning and innovation (Ng, 2010).

External review usually plays a monitoring role in the quality assurance mechanism to monitor the internal review. External review is undertaken by government or independent external bodies using a set of pre-specified performance indicators to assure the quality of the education provided. The internal review is undertaken by the school and involves planning, implementation and evaluation. Strategic planning and staff competencies are included in the performance indicators in some countries.

School strategic planning

Strategic planning is an overarching process that includes strategic thinking, strategic planning, implementation, review (Lumby, 2002), monitoring, and adjustment to the realities of the external environment (Peterson, 1999). This process includes scanning or assessment of the internal and external environmental components of the school organisation, analysing the information and data collected and formulating a plan to tackle the impact generated by the external environment (Allison & Kaye, 1997, p.74; Fidler, 1998, p.501). Through this process, school administrators and participants can articulate institutional goals and priorities. Fidler, Edwards, Evans, Mann, & Thomas (1996) note that during the process of strategic planning, schools can realise the impact of the external environment through environmental monitoring and apply the outcomes to planning.

School strategic planning helps school administrators to coordinate and re-organise the different decisions within schools, and deal with an increasingly turbulent environment and the challenges facing school organisation (Weindling, 1997, p.219). School administrators can analyse the external environment and internal school capacity for prioritising and planning school improvements through strategic planning (James & Phillips, 1995; Everard & Morris, 1996). By conducting an environmental analysis, schools can better understand their external environment and formulate a corresponding strategic plan to cope with changes. The external environment of a school organisation can be conceptualised through different aspects including political, economical, social, and technological aspects; change to any aspects of policy in the external environment can and will affect its teaching and learning, and resource allocation for stability and sustainability. Effective strategic planning ought to be wide-ranging and comprehensive; it would combine various activities within the school which would then be compiled into a document, ensuring that the actions in the plan are well-coordinated. The successful criteria for each school activity should be aligned with its objective.

Collecting reliable data and information is essential for effective strategic planning; therefore schools should ensure that their self-evaluation mechanism generates reliable data and information for strategic planning. Vanhoof, Van Petegem, Verhoeven, and Buvens (2009) draw the attention of school administrators to the linking up of school self-evaluation mechanisms with policy-making capacity. They iterate that the policy formulation competency of the participants and their evaluation skills will influence the effectiveness of the strategic planning. As Ewy (2009, p.3) contends, involvement of competent teachers in the planning process is a key factor in effective strategic planning. In addition, Ackoff (1970) points out that the procedure of staff participation in planning is more important than the outcome of planning, because staff can contribute more to school development if they are familiar with the school situation through involvement in planning. Self-evaluation capacity and staff competency in evaluation and planning are critical factors for institutionalising effective strategic planning in schools. It is not surprising that the reasons for strategic planning failure are a lack of reliable data and information and adequate staff participation in planning (Zhang, 2007; Chu, 2007).

School self-evaluation

School self-evaluation (SSE) is a quality assurance mechanism that enables schools to collect information for systematic planning of the development process according to the aims of school development (Akpe & Afemikhe, 1991; Van Petegem, 1998). SSE assists school administrators in identifying the strengths and weaknesses of their schools and provides direction for determining methods of school improvement (Akpe & Afemikhe, 1991). It develops schools by improving students' learning abilities and quality of education. School development depends mainly on schools' self-evaluation capacity; effective SSE would help schools organise change for improvement (Davis & Rudd, 2001).

The characteristic of effective self-evaluation is that it should be reviewed, analysed and discussed accordingly by school administrators and teachers. It could assist school administrators to learn about their schools as well as identify and act upon issues which are important to them (Pang, 2003). It could produce reliable data for formulating an effective strategic plan. It must focus on the major concerns and objectives of the school plans, identify the strengths and weaknesses of school performance in each area and provide information to remedy schools' weaknesses.

The process of conducting school self-evaluation in many countries involves a cyclical approach to planning, implementation and evaluation. For example, in Thailand schools are required to conduct an internal review and prepare an annual report through planning, implementation and monitoring and self-evaluation (Pitiyanuwat, 2007). The SSE approach in New Zealand involves preparation for the review, gathering information, analysing results, documentation and communication and making action recommendations based on findings (Sakura, 2007). Recently implemented SSE procedures in Scotland require schools to look at each aspect of provision and ask "How are we doing?" "How do we know?" "What are we going to do now?" (Croxford, Grek & Shaik, 2009). The process of conducting SSE in Hong Kong also uses a cyclical approach that includes planning, implementation, and evaluation, with monitoring of each stage. Schools are required to submit an SSE report for endorsement by external review.

In Hong Kong, school self-evaluation capacity and school performance are reviewed by the Education Bureau based on an external school review (ESR) policy. ESR involves scrutiny of the alignment of the major concerns of the school plans and the items reported in the self-evaluation reports. It assesses the capacity of the self-evaluation mechanism in supporting the schools to formulate a strategic plan for accomplishing their goals and the competencies of the teachers to implement the plan. The Education Bureau has supported schools with the Hong Kong School Value Added Information System (SVAIS), Assessment Performance in the Affective and Social Outcomes (APASO), and SSE Web-platform to support the schools' strategic planning. These tools provide a great deal of data that is generally unavailable in other countries with accountability systems. Based on these pre-defined performance indicators, schools are required to submit their school self-evaluation reports and school strategic planning for audit. However, the performance indicators introduced by the HK government were seen as both goals and pressures on schools, and the provision of training to schools on the use of these performance indicators for evaluation and planning was not sufficient.

Teacher professional competency

Besides institutionalising a school self-evaluation mechanism for effective planning, it is also necessary to provide teacher with training in evaluation skills and planning techniques

(Pang, 2003). School-based professional development is a key factor in enhancing teacher proficiency and learning abilities (Wang & Hua, 2008; Ren, 2007). If teachers do not understand the aims and processes of SSE, it is difficult to implement school self-evaluation. Thus it is imperative to set up comprehensive and well-organised training courses for teachers to improve their professional skills. To improve the effectiveness of the strategic planning mechanism, teachers should be able to develop school-based performance indicators to measure the effectiveness of activities. They should master the techniques of data analysis in conducting school-self evaluation and the skills required to formulate a strategic plan. Accordingly, schools should enforce and provide training opportunities for teachers on awareness of evaluation and target-setting: for example, data collection methods, discussions on analysis results, the purpose of in-depth analysis, and methods of establishing relevant developing strategies should all be included in the training courses.

Sun, Creemers and de Jong (2007)'s TCF model categorises goals, pressure and support as the main contextual factors for school effectiveness. These contextual factors are intertwined with the elements of the self-evaluation mechanism, planning, evaluation and feedback in enhancing school effectiveness. The TCF model may provide insights to explain the importance of the school quality assurance system for school effectiveness. As an internal review of the school quality assurance system, the capacity of SSE and effectiveness of strategic planning could help the school to identify and achieve the school goals. As the external review school quality assurance system, the ESR could exert pressure from the education authorities by reviewing SSE and endorsing the school's performance. Enhancing teacher competence on planning and evaluation could be supported by providing staff professional development which could contribute to school effectiveness. Institutionalising a quality assurance mechanism in school organisation and enhancing staff professionalism are key to the pursuit of school effectiveness. The HK government's policy on quality assurance and accountability may show measures of capacity for self-evaluation mechanisms and teacher competency that could affect the effectiveness of schools' strategic planning.

Research Design

Theoretical Framework of the Study

This research examines the predictive effect of embedding effective self-evaluation and enhancement of teacher competency to achieve an effective strategic plan (Allison & Kaye, 1997, p.74; Fidler, 1998, p.501). There are three variables involved in this study: the effectiveness of strategic planning (Weindling, 1997) is set as a dependent variable while the capacity of a school self-evaluation mechanism (Pang, 2003) and enhancement of staff competency (Pang, 2003) are set as independent variables.

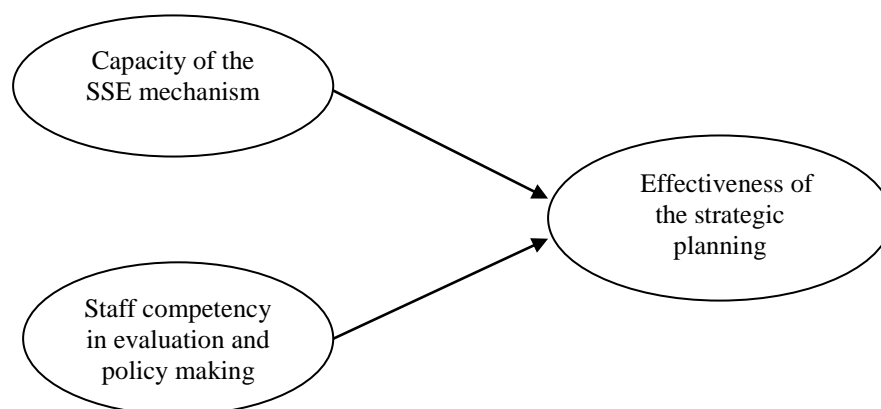


Figure 1 Theoretical Framework of the Study

All three conceptual variables were extracted from the literature for ensuring face validity and were operationalised into measurable items. The instruments consist of 16 items which measure the three variables using a four-point scale (see table 1).

The subjects in the study were teachers from aided secondary schools in Hong Kong. There are around 470 secondary schools in Hong Kong, of which 90% of are aided Schools, 5% are government schools, and the other 5% are direct subsidy schools. All of them are under the governance of the Education Bureau through the Education Ordinance and Education Regulations. Only aided secondary schools were selected for this study, because they form the major sector and a homogeneous group in conducting SSE and formulating a strategic plan. All aided schools have been required to fully implement SBM since 2000. 100 aided schools in Hong Kong were randomly selected from Hong Kong Island, Kowloon Peninsula and the New Territories for data collection, while 52 principals took part in the questionnaire survey on a voluntary basis. School principals are to be the people who can provide authentic information on the internal review and planning mechanism of the school.

Only 52 school principals responded to the survey, which may constitute a limitation of this study. However, the distributions of the schools in the three regions are in equal proportion to the total number of schools in those regions. Moreover, the minimum level of sample size for conducting factor analysis is dependent on the communality of the variables, degree of over-determination of the factor and item loading magnitude rather than general rules of thumb of the minimum sample size. MacCallum, Widaman, Zhang, and Hong (1999) suggested communalities should all be greater than 0.6, or the mean level of communality should be at least 0.7 (p. 96). The degree of over-determination of the factor is the factor-to-variable ratio (Preacher & MacCallum, 2002). A minimum of 3 variables per factor is critical (Velicer, & Fava, 1998, p. 243). 0.5 or more strongly loading items (.50 or better) are desirable and indicate a solid factor (Costello & Osborne, 2005, p. 5).

Confirmatory factors analysis and reliability tests were employed to confirm the constructed validity and internal consistency of the self-developed instrument. Confirmatory factor analysis was performed to examine the factor structure of the instruments and to tap into the underlying constructs of the three variables. Factors with eigenvalue greater than 1 will be extracted. Reliability has been generally defined as the degree to which assessment results are free from errors of measurement, and so was examined on the basis of quantitative procedures to determine the degree of consistency or inconsistency that was inherent within this instrument. Principal axis factor (PAF) analysis with Promax rotation was used to select the items in data reduction by using the SPSS program, while Cronbach's Alpha-reliability measure for internal consistency was utilised to test the reliability of the derived scales. The multiple regression test was applied for analysing data in order to explore the relationships among multiple continuously distributed independent variables and a single dependent variable. The $P \leq .05$ level of significance was used as the criterion for rejection of the null hypotheses.

Findings

The Kaiser-Mayer-Olkin Measure of Sampling Adequacy is 0.811. The communalities of all variables are above 0.60. Kaiser strategy was used to drop all components with eigenvalues under 1.0. All the item loadings are higher than 0.5 (see table 1). The construct validity of the instrument is confirmed by Factor Analysis. The result shows that three factors are extracted (see table 1). They are Factor 1: staff competency; Factor 2: strategic planning

effectiveness and Factor 3: capacity of SSE. The reliability of the scales ranged from 0.84-0.85 (as shown in table 1), which was judged adequate for this study. The mean and standard deviation of all 16 items are also shown in table 1.

Table 2 and Figure 2 show the results of regression analysis, the Variance Inflation Factor (VIF) = 1.377, < 10, which means independent variables were uncorrelated with the other independent variables, and $p \leq 0.005$, which is significant. This means that the regression model confirms the capacity of the SSE mechanism and staff competency as predictors for an effective strategic plan. Meanwhile, β for an effective SSE mechanism = 0.487, which is higher than β for staff competency = 0.208, demonstrates that the link-up with an effective SSE mechanism ($\beta = 0.487$) has a greater impact on the effectiveness of strategic planning than enhancing staff competency ($\beta = 0.208$). The results also show that an SSE mechanism and strategic planning are closely correlated in the school management process.

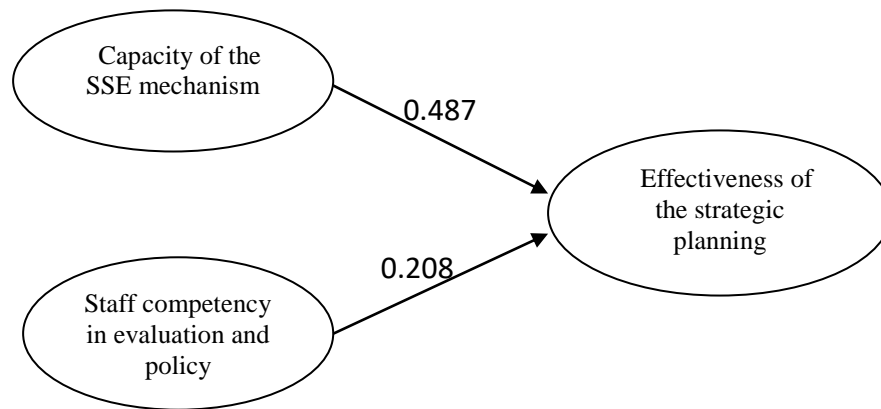


Figure 2 Result of linear multiple regression model

The mean of each item in Table 1 shows that the capacity of the SSE mechanism and the effectiveness of strategic planning at the respondent schools are higher than 2.5, which reflects that the principals agree on the effectiveness of their strategic plans (scale mean = 2.71) and the capacity of the SSE mechanism (2.75). The factor of SSE capacity indicates that the formulation of the strategic planning in their schools is primarily based on recommendations from the school self-evaluation report. Every teacher in their school has the opportunity to participate in the review of the SSE mechanism. The SSE mechanism of their schools could support their strategic planning. Based on the school self-evaluation report, they can identify the strengths and weaknesses of school performance, so as to prioritise their school plan strategically. The factor of strategic plan effectiveness indicates that the schools involve teachers in formulating the strategic plan. The action plan is produced by the school self-evaluation mechanism and prioritised according to its importance in contributing to school development. The design of the successful criteria for school activities is based on the aims and objectives of the activities. The school will conduct evaluation for each activity in the school development plan. Nevertheless, the scale mean for staff competencies on evaluation skills and planning techniques is comparatively lower (2.46), with some even lower than 2.5. This reflects the fact that few schools had offered training opportunities for the teachers on evaluation and planning skills, and only a small number of teachers had learned the techniques for setting up school-based evaluation and data analysis. If schools

provided training courses for them, strategic planning could be improved.

Table 1: Factor Analysis and Reliability results

	Mean	SD	Staff Competency	Strategic planning	SSE Capacity
1. Our teachers are able to develop school-based indicators to measure the effectiveness of the school activities.	2.27	0.171	0.958		
2. Our teachers are competent in conducting data analysis.	2.50	0.780	0.761		
3. Our teachers are competent in conducting self-evaluation for school improvement.	2.73	0.843	0.674		
4. Our teachers are competent in formulating a strategic plan.	2.58	0.848	0.654		
4. Our school provides appropriate training courses in evaluation skills.	2.23	0.731	0.616		
5. The successful criteria for each school activity are aligned with its objectives.	2.87	0.486		0.921	
7. The action plan is prioritised according to its importance in contributing to school development.	2.75	0.622		0.898	
8. Our school involves teachers in formulating the strategic plan.	2.54	0.727		0.579	
9. Our school will conduct evaluation for each activity in the school development plan.	2.77	0.614		0.555	
10. The development plan of our school lists out the priorities for each item.	2.71	0.637		0.518	
11. Our school will give higher priority to improving the activities with worse performance.	2.63	0.813		0.500	
12. Our teachers believe that self-evaluation can enhance school improvement.	2.73	0.689			0.874
13. Every teacher has the opportunity to participate in reviewing the performance of our school.	2.83	0.627			0.699
14. Our school will consider the recommendations from the self-evaluation report when formulating strategic plans.	2.79	0.667			0.604
15. The self-evaluation mechanism in our school enhances the capacity for formulating strategic planning.	2.83	0.550			0.603
16. Action plans for school development can be formulated from our self-evaluation mechanism.	2.58	0.667			0.578
Scale Mean			2.46	2.71	2.75
Eigenvalue			2.65	1.832	1.360
Variance explained			31.25	21.60%	16.03%
Cronbach α			0.85	0.84	0.85

Table 2: Multiple Regression Analysis Results

Independent Variable	b	Std. Error	β	T	p	VIF	Adj-R ²	F
Constant	0.913	0.285		3.207	0.002		0.446	21.516
Staff competency	0.208	0.096	0.265	2.168	0.035	1.377		
SSE Capacity	0.487	0.117	0.507	4.142	0.000	1.377		

Discussion

The findings of this study support the claims that in order to improve school strategic planning mechanisms, schools should link strategic planning with the SSE mechanism, enhance teacher competency in evaluation and planning, and also involve them in the evaluation and planning process. The capacity of SSE is a predictive factor for effective strategic planning. This finding is consistent with Vanhoof et al. (2009)'s assertion that school self-evaluation mechanisms are related to policy-making capacity. The SSE mechanism provides an opportunity for teachers to participate in reviewing their school performance. It reports the strengths and weaknesses of the school performance and provides reliable data, information, directions and even action plans to help schools formulate strategic plans for sustainable development. If SSE is linked up with strategic planning, it can optimise the SWOT analysis and facilitate the prioritisation of future action plans. Since the planning, implementation and evaluation in the quality assurance mechanism are identified as contextual factors for school effectiveness, school effectiveness would be enhanced by linking SSE with strategic planning.

Staff competency is a predictive factor of effective strategic planning. This finding is also consistent with Vanhoof et al. (2009)'s and Ewy (2009, p.3)'s assertions that involvement of competent teachers in the planning process is an essential characteristic of effective strategic planning. The formulation of effective strategic planning includes conducting data analysis, determining successful criteria for each school activity, and developing school-based indicators to measure the effectiveness of the school activities. Therefore the policy formulation competency of the staff and their evaluation skills affect the effectiveness of the strategic planning.

School-based management decentralises power to schools from the central district office for flexibility in decision-making. Schools are then required to be accountable to the public through an institutionalised quality assurance (QA) mechanism for pursuing school effectiveness. As tight coupling of the QA model, ESR represents state or customer accountability (Mulford, 2005). As loose coupling of the QA model, SSE appears to be intrinsically inherent in professional accountability (Eraut, 1993). If this loose-tight coupling of the quality assurance mechanism becomes unbalanced, the monitoring pressure exerted by the ESR may be too great or the support for teacher professional competence to carry out school self-evaluation may not be sufficient, and school effectiveness would be diminished as a result. This also explains why teacher professionalism is important in the QA model for pursuing school effectiveness. If school administrators really want their schools to pursue school effectiveness through sustainable development, they should consider enhancing the professionalism of their teachers by providing training on planning, implementation and evaluation. Methods of linking strategic planning and the SSE mechanism with support for staff professional development become significant to the school administrators.

Implications

Strategic planning, school self-evaluation and teacher professional development could be linked up by strategic management. Figure 3 portrays a model for the linking of the quality assurance system with strategic management. Linking strategic planning and the SSE mechanism with support for staff professional development falls within the scope of strategic management. This linking involves the coordination of different management tasks, e.g. institutionalising the SSE mechanism, empowering teachers for planning and providing teacher professional development. All of these management tasks could be covered by strategic management. Strategic management synthesises and integrates quality management,

human resource management and change management into a decision process which addresses the school's development as a whole and secures changes for school improvement (Weindling, 1997). Strategic management helps school administrators to carry out quality assurance tasks by formulating a strategic plan and evaluating the working effectiveness, directing resources specifically towards teacher professional development (Weindling, 1997).



Figure 3 Linking the quality assurance model with strategic management

Teacher professionalism is at the heart of the internal review of the QA system in Hong Kong, which means that staff professional development is at the centre of the model. In order to develop teachers' professional competencies, school administrators should provide training opportunities for teachers to enhance their planning and evaluation skills, which include developing performance indicators and data analysis. If teachers lack knowledge on SSE, it is difficult to institutionalise an effective SSE mechanism. To institutionalise such a mechanism, schools could establish an Evaluation Committee to deal with the evaluative tasks of routine work (Pang, 2003). Based on the direction and objectives of the strategic plan, the Evaluation Committee has to determine strategies, guidelines and schedules for self-evaluations, with a view to choosing appropriate methods and tools to measure performance (Cuttance, 1993).

In formulating strategic planning, schools administrators should determine appropriate success criteria that align with the objectives of the reviewed activities and review school effectiveness in different areas based on data analysis. They should also consult teachers, ask them for improvement suggestions and develop the plan in collaboration with them. Empowering teachers in planning is one of the recommendations of school-based management and a way of enhancing teacher professionalism (Cheng, 2008b). School administrators should encourage staff to participate in formulating strategic plans. This involvement will enhance staff understanding of school development and reduce the discrepancy between ideas and action during implementation. It establishes a clear and feasible common goal, and enables staff to gain a deeper understanding of school values and vision. School administrators should allow staff to present their viewpoints through discussion of plans for promoting knowledge-sharing among members with an eye to better decision-making. Participation by school staff in the SSE and planning could encourage teachers to conduct self-evaluation regularly (Cheng, 2008b). Eventually, school effectiveness will be attained by managing the quality assurance system strategically.

Conclusion

The results of this study not only confirm the improvement effect of enhancing capacity of SSE on effective strategic planning, but also highlight the importance of supporting the quality assurance system by developing teacher professional competency. As quality assurance and supporting teacher professional development are contextual factors for school effectiveness, school administrators should embed the SSE mechanism into strategic planning and support teacher professional development by providing training in evaluation and planning. With an effective strategic planning and SSE mechanism, school administrators can analyse the school's external environment and internal school capacity, so as to prioritise and plan for school improvement through strategic management. School-self evaluation is an embodiment of teacher professionalism that will be more acceptable to teachers. In pursuit of an excellent QA model for school effectiveness, SSE should couple with ESR to balance the controlled pressure from the external review. By this means, schools can effectively tackle the impact and challenges generated by education reform.

References

- Ackoff, R. L. (1970). *A concept of corporate planning*. New York: Wiley.
- Akpe, C. & Afemikhe, O. (1991). School self-evaluation: An examination of the state of the art in Nigeria. *Studies in Educational Evaluation*, 17, 117-127.
- Allison, M. & Kaye, J. (1997). *Strategic planning for nonprofit organization: A practical guide and workbook*. USA: John Wiley & Sons.
- Cheng, C. K. (2008a). The effect of shared decision-making on the improvement in teachers' job development. *New Horizons in Education*, 56 (3), 31-46.
- Cheng, C. K. (2008b). Management practices for promoting shared decision-making in school organization. *KEDI Journal of Educational Policy*, 5 (2), 63-88.
- Chu, J. T. (2007). Changes in Primary and secondary school development planning. *Journal of Research in Education Sciences*, 9, 9-13.
- Costello, A. B., & Osborne, J. W. (2005). Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis. *Practical Assessment Research & Evaluation*, 10 (7). Retrieved July 3, 2008 from <http://pareonline.net/pdf/v10n7a.pdf>.
- Croxford, L., Grek, S., and Shaik, F. (2009) Quality Assurance and Evaluation (QAE) in Scotland: Promoting self-evaluation within and beyond the country, *Special Issue of Journal of Education Policy*, 24(2), pp.179-193.
- Cuttance, D. (1993). *The development of quality assurance reviews in the NSW public school system: What works?* New South Wales: Department of School Education.
- Davies, D. & Rudd, P. (2001). *Evaluating school self-evaluation: LGA educational research Programme*. London: Local Government Association.
- Education Commission (1997). *Education Commission Report No.7*. Hong Kong: The Government Printer.
- Education Commission (2000). *Review of education system-reform proposals (consultation document)*. Hong Kong: The Government Printer.
- Gurr, D. (2007). Diversity and progress in school accountability systems in Australia. *Educational Research for Policy and Practice*, 6(3), 165-186.
- Eraut, M. (1993). Teacher accountability: why is it central in teacher professional development? In: L. Kremer-Hayon, H.C. Vonk and R. Fessler (Eds.) *Teacher professional development: a multiple perspective approach*. Amsterdam: Swets and Zeitlinger.
- Everard, K. B. & Morris, G. (1996). *Effective School Management*. London: Paul Chapman.
- Ewy, R. W. (2009). *Stakeholder-Driven Strategic Planning in Education. A practical Guide for Developing and Deploying Successful Long Range Plans*. USA: American Society for Quality.
- Fennell, H. A. (1994). Organizational linkage expanding the existing metaphor. *Journal of Educational Administration*, 32(1), 23-33.
- Fider, B. (1998). How can a successful school avoid failure?: Strategic management in schools. *School Leadership and Management*, 18 (14), 495-509.
- Fidler, B., Edwards, M., Evans, B., Mann, P. and Thomas, P. (1996). *Strategic planning for school improvement*. London: Pitman.
- Firestone, W. A., & Wilson, B. L. (1985). Using bureaucratic and cultural linkages to improve instruction: the principals contribution. *Educational Administration Quarterly*, 21(2), 7-30.
- Herriott, R. E., & Firestone, W. A. (1984). Two images of school as organizations: A refinement and

- elaboration. *Educational Administration Quarterly*, 20(4), 41-57.
- Hodgon, A. & Chuck, M. (2003). *Strategic Planning in International Schools*. Scotland: Peridot Press.
- Jame, C. & Phillips, P. (1995). The practice of educational marking in schools, *Educational Management of Administration*, 23 (2), 75-88.
- Lumby J. (2002). Vision and Strategic Planning. In Bush T. & Bell L. (Ed.) *The principles and practice of education management*. London: Paul Chapman Publish, pp. 86-100.
- MacCallum, R. C., Widaman, K. F., Zhang, S., & Hong S. (1999). Sample size in factor analysis. *Psychological Methods*, 4, 84-99.
- Mickey. C., McDonald, D., & Bloom, S. (1983). Structural and expectancy linkages with schools and organizational effectiveness, *Educational Administration Quarterly*, 19(1), 49-82.
- Mulford, B. (2005). Accountability policies and their effects. In N. Bascia, A. Cumming, A. Datnow, K. Leithwood, and D. Livingston. (eds). *International handbook of educational policy*. London: Springer, pp. 281-294.
- Ng, P. T. (2010). The Evolution and Nature of School Accountability in the Singapore Education System. *Educational Assessment, Evaluation and Accountability*, 22(4), 275 - 292.
- Pang, N. S. K. (2003). Initiating organizational change through school self evaluation. *The International Journal of Knowledge, Culture and Change Management*, 3, 245-256.
- Peters, T. & Waterman, R. (1982). *In search of excellence: Lessons from American best run companies*. New York, NY: Harper & Row.
- Peterson, M. W. (1999). Using contextual planning to transform institutions. In M. Peterson (Ed.) *ASHE reader on planning and instructional research*. Needham Heights, MA: Pearson Custom Publishing, pp. 127-157.
- Pitiyanuwat, S. (2007). School assessment in Thailand: roles and achievement of ONESQA. *Educational Research for Policy and Practice*, 6(3) , 261-279.
- Preacher, K. J., & MacCallum, R. C. (2002). Exploratory Factor Analysis in Behavior Genetics Research: Factor Recovery with Small Sample Sizes. *Behavior Genetics*, 32, 153-161.
- Ren, D. Z. (2007). *Researches and practices on school-based training*. Chongqing Southwest China: Normal University Press.
- Sakura, F. (2007). School monitoring and quality assurance in the New Zealand school system. *Educational Research for Policy and Practice*, 6(3), 229-234.
- Sergiovanni, T. J. (1984). Leadership and excellence in schooling. *Educational Leadership*, 41, 4-14.
- Sun, H., Creemers, B., & de Jong, R. (2007). Contextual factors and effective school improvement. *School effectiveness and School Improvement*, 18(1), 93-122.
- Taylor, J., Machado, M. D. L. & Peterson, M. W. (2008). Leadership and Strategic management : Key to institutional priorities and planning. *European Journal of Education*, 43 (3), 369-386.
- Van Petergram, P. (1998). *Forming school policy: Effective school research as an inspiration for school self evaluation*. Belgium: Leuven ACCO.
- Vanhoof, J., Van Petegem, V., Verhoeven, J.C. and Buvens, I. (2009). Linking the policymaking capacities of school and the quality of school self-evaluations: The view of school leaders. *Educational Management Administration & Leadership*, 37 (5), 667-686.
- Velicer, W. F., & Fava, J. L. (1998). Effects of variable and subject sampling on factor pattern recovery. *Psychological Methods*, 3, 231-251.
- Wang, G. & Hua, Z. P. (2008). School-based practical and strategic analysis on improving teacher professional competency. *Journal of Lianyungang Teachers College*, 1, 61-62.
- Weick, K. E. (1976). Educational organizations as loosely coupled systems, *Administrative Science Quarterly*, 21, 1-19.
- Weindling, D. (1997). Strategic planning in School: Some practical techniques in Preedy, M, Glatler, R. and Levacic, R (ed) *Educational Management: Strategy, Quality and Resources*. Buckingham: Open University Press, pp. 218-233.
- Willower, D. (1982). School organizations: Perspectives in juxtaposition. *Educational Administration Quarterly*, 1(3), 89-110.
- Zhang, M. (2007). Analysis on factors that affect the implementation of school development planning. *Journal of Jiangsu Education*, 12, 26-27.