

IMPACT OF PRINCIPALS' MANAGERIAL ROLES UNDER SCHOOL-BASED MANAGEMENT ON SCHOOL IMPROVEMENT AT URBAN SECONDARY SCHOOLS OF BANGLADESH

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Abstract

This article aims at observing the relationship between principals' managerial roles and the improvement of schools and the impacts of principals' managerial roles toward school improvement based on the school-based management. This research uses 127 principals and 694 teachers of urban secondary schools of Bangladesh as the sample. Schools are becoming better when the principals give more emphasizing on strategic plan, supportive and comprehensive roles but less emphasizing on shared decision making. The findings of this study offer valuable information for policy makers and educational managers, especially the principals and teachers.

Abstrak

Tujuan utama artikel ini adalah untuk melihat hubungan antara peran-peran managerial kepala sekolah dan pengembangan (peningkatan) sekolah; dan untuk melihat bagaimana dampak peran managerial sekolah tersebut terhadap pengembangan sekolah berdasarkan manajemen berbasis sekolah. Sampel yang digunakan dalam kajian ini melibatkan 127 kepala sekolah dan 695 guru sekolah-sekolah menengah (SMP) di perkotaan di Bangladesh. Pengembangan sekolah jadi lebih besar ketika kepala sekolah lebih menekankan suatu rencana strategis, peran-peran yang suportif dan komprehensif, tetapi kurang menekankan pada pembuatan keputusan secara bersama-sama. Temuan-temuan dalam kajian ini memberikan informasi yang sangat berharga bagi pembuat kebijakan, para pengelola pendidikan khususnya para kepala sekolah dan guru.

Kcy words: *Principals' managerial roles, school-based management, teachers' professional development activities, school improvement*

Introduction

Principals' leadership is a major factor contributing to school improvement (SI) because school principals are the authorized key-figures at site level under the SBM system (Amundson, 1988; Delaney, 1997). Though SBM is viewed as a positive and successful vehicle of SI, there are uncertainties pertaining to the roles of principals. As considerable research continues to demonstrate the pivotal position of principalship in school management, there should also be similar work on roles that principals can utilize to achieve their schooling objectives (Hallinger, 2003; Leithwood & Jantzi, 2000). Unfortunately, there are no clear basic guidelines; the principals generally play their role as situation demands. It varies from school to school, state to state, and country to country. This study attempts to examine some principals' roles that have common impact on SI.

Literature Review

School-based management

According to Murphy (1997), SBM is a strategy to decentralize decision-making to each individual school that facilitates the empowerment of parents and the professionalism of teacher, shared decision-making among key stakeholders at local-level. Though Lindquist and Mauriel (1989) argued that variation of the SBM concept is confusing and conflicting but White (1989) holds that these variations are regarded via the levels of authority of the involved actors and the control areas. Cotton (1992) in his model admits that there are other variations as well found in the studies documents. For him, SBM is a form of district organization that alters the governance of education represents a shift of authority towards decentralization. It is identified that the school is the primary unit of education; changes and moves towards an increasing decision-making power to local school site.

Conceptual ideas of SBM definitions are concluded by Mojkowski & Fleming, (1988), Peterson, (1991) and White, (1989) as follows: (i) the school is the primary unit of change; (ii) those who work directly with students have the most informed and credible opinions; (iii) the school principal is the key figure in school improvement and (iv) SBM supports the professionalism of the teaching and vice versa, which can lead to more desirable schooling outcomes.

Principal's roles under SBM

Cotton (1992) has projected on four roles of principals practice under SBM: The first role 'chief executive officer' is the act of decision-

making. The principal as an executive officer primarily discovers the problem and then with creative approach and wisdom to solves it. Malen, Ogawa and Kranz's (1990, 1990a) also support Cotton's principals as the chief executive officer under SBM. The Second, the collegiality and sharing of authority where teachers feel comfortable in exchanging opinion and sharing decisions. Principals create positive climate and encourage teachers to participate in decision-making. Pertinent to this, Rosenholtz (1985) asserts that the most effective schools do not isolate teachers instead encourage a close collaboration. This can be done by establishing and maintaining a collaborative relationship with school staff, considers teachers' ideas, and seeking their input. Hargreaves (1994) agrees the idea that teachers are able to implement new ideas within supportive relationship or partnership context; and principal plays the third role as an instructional manager. Generally, effective principals have high expectation for school improvement, and support others towards achieving the common goals. The Maryland Instructional Leadership Framework (2005) focuses on bearing this knowledge for school principals to be the manager of teaching-learning at school. Principals' accountability according to Cotton (1992) under SBM should be accountable and act as the guardian of teachers and students otherwise it may creates barriers, debate and critique (Havnes & Stensaker, 2006).

Wohlstetter (1994) and Mohrman (1993) saw evidence of emerging new roles for principals in restructured SBM schools. They argued that principals in SBM School need to balance a variety of roles. The principals' roles evolve from direct instructional leadership to a broader role of orchestrating decision-making; often through teams of teachers and interacting with a wider range of individuals including community members and other stakeholders. Principals' roles are also depicted in some other works (Ceperley 1991; Clune & White, 1988; Conley & Bacharach, 1990). Cranston (2001) identified six key roles of principal under SBM: leadership in education, management change, outcomes, accountability, people and partnership. He considers the last role as the most relevant and important. Cranston (2001) concluded, with the acknowledgement from Limerick, Cunnington and Crowther (1998) that principals' challenges are not much different from other leaders of any organization.

In Bangladesh, community control SBM in the form of School Managing Committee (SMC) consists of 11 members, of which 4 guardians' and 2 teachers' representatives are elected through government supervised electoral system. The Headmaster is the member

secretary and the local parliament member or his representative acts as chairman. There are two other members in donor and educational entrepreneur category. Their functions, responsibility and power are well balanced. Two third majority decisions are practiced. They have the right to express their opinions in every aspects of school administration other than academic affairs but headmaster has sole authority on academic matters. However, a well managed headmaster always encourages teachers to contribute in academic decision-making based on each expertise.

Teachers' professional development activities

There are no rigid dimensions of professional development. Different researchers viewed different ideas. However, there are some common basic components that are essential for teaching improvement.

Hopkins et al. (1994) held two strategies in staff development for school improvement: First, the on-going practices in the school; and Second, the link and strengthening other internal features of school organization. These strategies need peer observation, clinical supervision, coaching and in-service training. Pfannenstiel et al. (2000) suggested that traditional professional development activities are to attend workshops, college courses, conferences and meetings whereas job-embedded activities are observing demonstration lessons, coaching or mentoring, participating in study groups, reflecting specific classroom practices, conducting research, join planning lessons with other staffs and collegial sharing of best practices.

Harris (2002) sorted some major components of effective staff developments, namely; teacher collaboration, action inquiry, classroom observation and personal reflection, which include the curricular focus and teachers' study habit. Abdul Jalil Ali (2004) framed five characteristics of successful teachers' professional development; professional development design, professional development delivery, professional development content, professional development context; and professional development outcomes. Professional development delivery includes expert presentation, clinical supervision, skill training and action research as some of the knowledge delivery methods.

School improvement

School Improvement (SI) is a journey towards excellence on some changing process. These changing domains can be identified from the works of distinguished researchers who worked on different areas of

school improvement since a decade ago. Most of the subject matters are almost similar but they are explained in different ways. Some of the researchers have emphasized on changing of the school culture such as to include learning condition and related internal conditions, teacher and leadership development and classroom improvement (Barth 1990; Fullan, 1991; Miles, Elkhholm, & Vandenberghe, 1987; Scheerens, 1992).

Some others define SI as multilevel intervention and mobilizing change at school, department and classroom level (Fullan, 1993; Hopkins, Ainscow, & West, 1994; Hopkins & Harris, 1997). Creemers (1994) has highlighted teaching and learning process as main determinants of SI and Hopkins (2001) suggested on adapting the management arrangements within the school to support teaching and learning as a strategy for educational change for real improvement whereas Harris (2002) highlighted some valuable findings on the successful process of successful school change such as teacher development, leadership development, improving the learning condition and the school culture.

Hopkins (2001) draws a framework of SI and school excellence where leadership and management, professional pathways, teaching, environment, evaluation, students learning, collaborative planning, curriculum assessment of learning are crucial elements. In spite of obvious contextual differences and definitional and measurement issues, there is wide consensus that principals leadership role has tremendous impact on SI. Thus, it is important to understand and determine the influential factors of principals' leadership roles that impact on SI.

As the school principal is the key figure in SI under SBM, the roles and responsibility of principal under SBM greatly influence the SI process. Though the basic responsibilities of principal are the same in different model, there are some variations. The principal needs to operate differently from previous time (Sullivan, 1988). For these reasons, the managerial roles of principal under school-based management have been the subject of much research in educational setting for SI.

Hypotheses

- Ho1 There is no significant relationship between headmaster's management roles under SBM and school improvement.
- Ho2 There is no significant relationship between headmaster's management roles and teachers' professional development activities.

- Ho3 There is no significant relationship between teachers’ professional development activities and school improvement.
- Ho4 Teachers’ professional development moderates the relationships between the headmaster’s management roles under SBM and school improvement.

Research Methodology

The population of the study was the headmasters and teachers of the secondary schools of Dhaka city in Bangladesh. The total number of secondary schools in Dhaka is 315 with 10634 teachers (BANBEIS, 2006). The sample for this study comprises of 177 schools (30 schools with the passing rate 75% to 100%, 22 schools with less than 25% passing rate, 45 schools 25% to 49% and the rest 80 are 50% to74% passing rate in the first public examination at Dhaka City of Bangladesh). In the second stage, 10% of the teachers from each of the 177 selected schools were randomly chosen as participants in this study to respond to the questionnaires given by the researchers. Questionnaires on headmasters’ roles under SBM, teachers’ professional development and SI were used to collect the quantitative data for this study. The sources of these questionnaires are adapted from Tanner and Stone’s (1998) version for headmasters’ managerial roles under SBM using Pfannenstiel et al. (2000) for the teachers’ professional development and Ubben; and Hughes (1992) for SI.

Results of Hypotheses Testing

Testing hypothesis Ho1

Table1 Relationship between headmasters’ managerial roles under SBM and SI.

Variables	Unstd co-efficient (B)	Standardized Beta	T value
Strategic planning	.439	.333	2.976*
Supportive	.485	.368	2.669*
Comprehensive planning	.248	.18	1.156*
Shared decision making	.092	.08	.462
Facilitator	-.313	-.243	-1.148
R ²	.393		
Adjusted R ²	.368		
F Value	15.671		
Significant F	.000		

Note. * $p < .05$

Table 1 indicated that in general, the model is significant ($F = 15.671$, $p < 0.05$). The adjusted R^2 value of .368 supports that 36.8% of the variation in SI can be explained by the independent variables. Table 1 shows a significant relationship between headmasters' experience and SI ($\beta = 0.160$, $p < 0.05$). The results also implies the presence of significant relationship between strategic planning and SI ($\beta = 0.333$, $p < 0.05$). The supportive attitude of headmasters ($\beta = .368$, $p < 0.05$) is also found more significant with SI. The positive value standardized beta for comprehensive planning ($\beta = .184$, $p < 0.05$) also supported the relationship with SI. The condition indexes, VIF , and tolerance are found to be within acceptable range that ruled out the potential problem for multicollinearity.

Testing hypothesis Ho2

Table 2 The Relationship between Headmaster's Managerial Roles and Teachers' Professional Development

Variables	Unstd co-efficient (B)	Standardized Beta	T value
Strategic planning	.029	.016	.160
Supportive	1.149	.614	4.328*
Comprehensive planning	-.192	.105	-.854
Shared decision making	-.651	-.420	-2.650*
Facilitator	.983	.551	2.919*
R^2	.52		
Adjusted R^2	.50		
F	26.008		
Significant F	.000		
Note. * $p < .05$			

In general, the model is significant ($F = 26.088$, $p < 0.05$). The adjusted R^2 value of 0.50 supports that 50% of the variation in professional development can be explained by the predictor variables. The results indicated the presence of a highly significant positive relationship between supportive ($\beta = 0.551$, $p < 0.05$) and teachers' professional development. The predictor variable shared decision-making ($\beta = -0.420$, $p < 0.05$) and facilitator ($\beta = 0.551$, $p < 0.05$) related to the teacher professional development at the rate of high significant

amount. Shared decision making has had significant negative impact on teachers’ professional development. The other predictor variables (strategic planning and comprehensive planning) showed no relationship with professional development.

Testing hypothesis 3

In general, Table 3 shows the significant model ($F=12.35$, $p<0.05$). The adjusted R^2 values of .351 points that 35.1% of the variation in school improvement can be made by the predictor variables of professional development. The results showed the very significant relationship between teachers’ collaboration and school improvement ($\beta = .953$, $p<0.05$). The relationship of other predictor variables such as in-service training ($\beta = .469$, $p<0.05$) and classroom observation ($\beta = .512$, $p<0.05$) resulted in the highly significant relation with school improvement. Curricular focus ($\beta = -0.133$, $p<0.05$) shows significant negative relation with the course of school improvement.

Table 3
The Relationship between Teachers’ Professional Development and School Improvement.

Variables	Unstd co-efficient (B)	Standardized Beta	T value
Teachers	1.371	.953	3.30*
Collaboration	.600	.469	1.956*
In service training	.497	.395	1.626
Action enquiry	.766	.512	2.601*
Classroom	-1.802	-.1311	-2.62*
observation	-.417	-.274	-.867
Curricular focus			
Study			
R ²	.351		
Adjusted R ²	12.35		
F Value	.000		
Significant F			

Note:* p < .05

Testing hypothesis Ho4

Table 4

Standardized Regression Coefficients for Professional development on the relationship between Headmaster's Managerial Roles under School-based Management and School Improvement

	Strategic planning	Supportive	Comprehensive planning	Shared decision making	Facilitator
Teachers Collaboration	0.10*	0.01*	-	-	0.04*
In service training	0.07*	0.01*	-	-	0.07*
Action enquiry	-	-	0.03*	-	-
Classroom observation	-	0.02*	-	-	-
Curricular focus	-	-	-	-	-
Study	0.07*	-	-	-	-
<i>Notes. * $p < 0.05$</i>					

As indicated in Table 4, only nine significant moderators of the possible 30 interactions effects (5 professional development activities $\times$ 5 managerial roles 1 school improvement) were detected significant. These represent about 30% of the possible cases examined. However, teacher collaboration and in service training are appeared as moderators with greatest numbers of moderating effects (3 each). This followed by action enquiry, classroom observation, and study with one each. Taken together, these findings indicate that the teachers collaboration, in-service training, action enquiry, classroom observation, and study enhance the relationship between headmasters' managerial roles and school improvement in this study.

Discussion

Individual Effects

The impact of headmasters' strategic-planning, supportive role, and comprehensive planning under SBM give significant and positive impact on SI. This result indicated that the headmasters of Bangladesh city secondary schools, as prime school, are recently opened for strategic planning recognition as to achieve the desired improvement in the schooling system. The result underpinned the necessity of strategic-

planning for headmasters to lead the school into incremental improvement by streamlining the non value added functions. They developed SI plan, stayed abreast of the work, promoted the vision and mission, orchestrated meetings and recognized all successes under their strategic planning roles. In this way, the headmasters formulate their holistic school design as set under SBM and exercise strategic planning around a coherent set of values. They also supported their teachers in order to improve their basic commitment for well-balanced development of the schooling outcomes. By ensuring proper time management and conducive teaching-learning environment, the headmaster can inspire teachers to engage for self development and consequently, contribute to SI. This implies that comprehensive managerial style for headmasters can contribute to SI. Comprehensive planning - the necessary management tool for headmasters under SBM disperses information among various managing groups to perform the day to day task at site level. A rigorous SI can be attained through headmasters' comprehensive managerial style. Thus, proper implementation and utilization of comprehensive planning leads a school to the path of quality improvement. It also increases the flexibility in improving students-teachers' quality and societal needs.

Regarding the impact of headmaster's managerial roles under SBM on teachers' professional development, it is found that his supportive role has positive significant effect on teachers' professional development activities. This finding reveals that teachers' professionalism can be improved to an expected level with headmaster's support. In this regards, Cardono (2005) asserts that the headmaster's support enables the staff to concentrate on the core task which according to Hargreaves (1994), is self development, and paves the way to gain high quality knowledge on effective teaching and learning that is applicable and practical in the classroom (Hargreaves, 1994). Professional development that is a constant and paramount concern, has a greater importance for sustaining and advancing the school outcomes. Hence, the headmaster supports to provide school wide staff development on a continuous basis that has a positive relationship in maintaining a self and orderly environment for the high achievement at school. In turn, this will increase the flexibility in response to the demands of clientele needs. But there should be awareness that teachers need to be honoured and supported before honouring the students (Hord & Boyd, 1995).

While the findings have determined the partially supported positive significant relationship between teachers' professional

development activities such as teacher collaboration, in-service training and classroom observation with school improvement. Teachers' collaboration is one of the most important activities of developing teachers' professionalism. Teachers' collaboration, a critical component of organizational learning, has a very positive and significant high level effect on school improvement (Moran, Uline, Hay & Mackley, 2000). The reason behind it is that crucial practices among teachers include reflective dialogue, open sharing of classroom practices, the development of a common knowledge base for improvement and collaboration on the development of new material and curricula. As teachers' collaboration in problem-solving critically analyses the teaching method, discuss students' work and participate in peer coaching, their thinking process enrich and transform individual knowledge into organizational knowledge. This practice increases the level of professionalism by changing what teachers actually do during the course of the day. Such collaborative activities become routine and authentic means of school growth and improvement. This study also found a direct significant effect of teachers' in-service training on school improvement. The reason for this is that in-service training is an essential element for teachers' professional growth. Teachers participate in school or government sponsored workshops and conferences with the purpose to enhance their teaching quality. This capability directly promote a new vantage point to meet the classroom needs towards school improvement. Under classroom observation, teachers gain feedback for their classroom activities. All schooling activities are 'centered round' students' learning and the students have direct contact with teachers. If classroom teaching is successful then the total schooling effort would be successful too. Thus, from classroom observation, teachers can record and review their classroom behavior, develop their awareness, observe others in action, and choose the best teaching technique for them.

Moderating effects of teachers' professional development

The result of moderator effect of different dimensions of teachers' professional development activities on school improvement will be discussed below according to different dimensions of headmaster's managerial roles.

a. Moderating effect of teachers' collaboration

The overall findings denote that the relationship of some dimensions of headmaster's managerial roles such as strategic planning, supportive and facilitators and school improvement are moderated by

teachers' collaboration. Since the headmaster's strategic planning, supportive and facilitators' roles in care of Bangladesh city secondary schools, have come to encapsulate a range of activities associated with key-management process which draw together institutional values and goals. The headmaster, supported by teaching staff, formulates the vision for the school and then translates it into action. Headmasters involve the embodiment and articulation of this vision and its communication to others in the form of strategic planning. Thus, the moderating influence of teachers' collaboration on the relationship between headmasters' strategic planning and school improvement can be explained in two ways: I) when headmasters practice their strategic planning role from low to moderate level, the impact of strategic planning on school improvement is greater for those schools where there is less presence of teachers' collaboration. When headmaster applies his strategic planning role from moderate to high the impact of strategic planning on school improvement is greater for those schools where there is full swing of teachers' collaboration and (ii) The impact of strategic planning on school improvement is always positive and is greater for those schools where headmasters gives more emphasis on teachers' collaboration.

b. Moderating effect of in-service training

The overall findings show that the relationship of strategic planning, supportive, facilitator role and school improvement are moderated by teachers' in-service training. In-service training, the most successful teachers' professional development activity moderates the relationship between headmaster's and school improvement. This scenario reveals that headmaster's strategic planning and in-service training are compatible. Schools which have more and more trained teachers, gain more benefit from the headmaster's managerial side for his supportive strategic planning to ensure a conducive teaching-learning environment. Accordingly, the findings indicate that the relationship of headmaster's facilitator role and school improvement is moderated by in-service training. The result implies that the impact of facilitator role on school improvement is greater when the headmaster emphasizes on the participation of teachers in their in-service training. It is clear that headmaster's facilitator role coupled with in-service training has a high impact on school improvement.

c. Moderating effect of action enquiry

Action enquiry does appear to moderate the relationship between headmaster's comprehensive planning and school improvement. The result shows that the effect of comprehensive planning on school improvement is greater in those schools where action enquiry exists. This scenario also reveals that headmaster's comprehensive planning and action enquiry are compatible. This is because under comprehensive planning, headmasters monitor school activities and observe the day-to-day operation staying abreast with the teachers. Since headmaster works with teachers at field level, he has the scope to assist teachers to identify their own problem and helps to find the solution. Schools practicing individual action enquiry can gain from headmaster's comprehensive planning as he is working with the individual teacher closely. It denotes that when the level of headmaster's comprehensive planning is low to moderate the impact is greater for those schools that practice small scale of action enquiry, but when the level of comprehensive role is applied from moderate to high, it has greater impact for those schools that practice large scale action enquiry. The findings clear the idea that headmaster's comprehensive planning doubled with action enquiry will bring significant school improvement.

d. Moderating effect of classroom observation

The moderating impact of teachers' classroom observation on the relationship between headmasters' supportive roles on school improvement is apparent when the headmaster extends his supportive role from low to moderate. When headmaster's supportive attitude is increased from moderate to high, the impact of his supportive role is greater in those schools where there is more classroom observation. Classroom observation corrects teachers' teaching defects and gradually penetrates them to perfection. Classroom observation itself has also a very positive effect on school improvement. Thus, headmaster's supportive role coupled with classroom observation makes a very positive platform for school improvement.

e. Moderating effect of study habit of teachers

The moderating role of teachers study habit appears on the impact of headmaster's strategic planning and school improvement. This impact appears only when headmasters practice their strategic planning role from low to moderate level; the impact of strategic planning on school improvement is greater for those schools where there is less presence of teachers' study habit. When headmasters apply their strategic

planning role from moderate to high level the impact of strategic planning on school improvement is greater for those schools where there is a full range of teachers' study habit. The impact of strategic planning on school improvement is always positive and is greater for those schools where headmasters give more emphasis on study habit.

Implications

Bangladesh lacked of empirical research in educational areas especially in secondary educational management. Although the SBM has been in existence in non-government secondary schools for a decade in Bangladesh, there is no research conducted in this area or related areas by local research bodies such as the Institute of Educational Research (IER), National Institute of Educational Management and Administration (NIEAM) or Bangladesh Institute of Development Studies (BIDS). It is hoped that this study may be able to contribute to the development of SBM. This work constitutes a precise description of the extent of SMB practices in city secondary schools of Bangladesh. The researchers believe that the insights from this study are further stressed by realistic depictions of headmasters' managerial roles to understand the complexity of their work (Noddings & Witherell, 1991).

This study suggested that for the secondary schools of Bangladesh to achieve desired improvement, the emphasis on quality without improving the managerial system would be like building a *castle in the air*. In Bangladesh, the site level management is mostly headmaster-centered especially in terms of academic decision. Hence this is good initiative and positive for SI process. However, it is not so simple for headmasters to carry out the tasks. Developing and monitoring headmasters' capabilities require conscious effort both from headmasters and teachers. The headmasters must know the variables that strengthen their capacities to make informed decisions.

This study revealed that some headmasters' managerial roles were highly influenced by the SI indices. Consequently, the headmasters of secondary schools in Bangladesh may consider adopting these managerial roles more often and in a consistent manner opposed to the current practice. Many headmasters in Bangladesh city secondary schools have the misconceptions on shared decision making under SBM. They viewed that shared decision-making means participation of all teachers in all decisions. The idea was good and welcomed by teachers but the study result indicated a different picture. Shared decision making has no or to some extent negative impact on SI. In reality, Dinham

(2007) stresses that headmasters involve teachers in decision-making, taking into account the teachers' expertise areas, professional capacities, and strategies.

Suggestions for future research

Although this study is a systematic approach to find out the relationship between headmasters' managerial roles under school-based management and school improvement, it could not cover all the important issues regarding this field. In spite of conducting this study, is still little known about the relationship between headmaster's roles and school improvement. Accordingly, the following suggestions are recommended for future researchers:

The first, this study has used the sample of city secondary schools of Bangladesh but it would be more interesting to use the similar questionnaire in rural and sub-urban schools of Bangladesh as well as to include other developing countries which are practicing school-based management in their education system. It will be useful to generalize the findings of this study.

The Second, as this study only focuses on traditional teachers' professional development activities as moderators, thus the researchers suggest that conducting a field study incorporating teachers' technological skills as moderator in relationship between headmaster's managerial roles and school improvement may open a new avenue for further research.

The Third, this study used school improvement as indicator. Though the designed questionnaire covered all possible areas of school improvement indices, the researchers suggest that using certain measurement such as student performance, curriculum development, student engagement, teachers' efficacy and teachers commitment may be considered more adequate.

Conclusion

There is a positive relationship between most dimensions of headmaster's managerial roles under school-based management and school improvement. There is also a positive relationship between some dimensions of teachers' professional development activities and school improvement indices. The impact of headmaster's managerial roles on school improvement is contingent on some of the teachers' professional development activities. The overall results of various hypotheses testing had achieved the preliminary objectives of this study.

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