A STUDY OF COLLABORATIVE SCHOOL CULTURE AND STUDENT ACHIEVEMENT

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Abstract

This research aimed to study collaborative school culture and student achievement in Basic Education High Schools, Thanphyuzayet Township, Mon State. The sample of the present study was composed of 230 teachers from eight different high schools from Thanphyuzayet Township, Mon State. For the data collection, the only instrument, collaborative school culture questionnaire was used. Quantitative and qualitative research method was used in this study. Collaborative school culture at Basic Education High Schools in this study was moderately strong according to the mean scores responses on the questionnaire items (mean=3.17, SD=.24). According to the results of Oneway ANOVA, there were significant differences among schools in all six dimensions (F=3.44, p<.01, F=3.75, p<.01, F=8.81, p<.001, F=7.40, p<.001, F=8.22, p<.001, F=3.03, p<.01). According to the results of the Independent Samples t Test, there were significant differences in all six dimensions in terms of student achievement (t=-2.40, p<.05, t=-3.82, p<.001, t=-3.27, p<.01, t=-3.95, p<.001, t=-3.77, p<.001). Pearson product-moment correlation coefficient indicated that collaborative school culture was correlated with student academic achievement at (r=.309, p<.01).

Keyword: collaborative school culture, student achievement

Introduction

One of the strands of educational reform movements in the last two decades has been the call for greater collaborative efforts, both among educators as well as with parents, students and the surrounding community (Hargreaves, 1994, as cited in Horton Jr, 2018). The new wave of change in Myanmar led to creating the education system that shifts from the traditional teaching style to styles and behaviors that support collaborative cultures. In a school community, every member needs to strive for success and nurture a good work atmosphere where everyone cares and supports each other. School culture is based on the norms, values, and beliefs that are embraced by school members. When a school adopts a traditional culture, people lean toward isolation and refrain from working together collaboratively. Collaborative school cultures encourage teachers to work together and help them to learn from each other. A culture that supports continuous inquiry and shared practices to be positive for learning. As teachers are engaged in purposeful dialogue about student learning and school achievement within professional learning communities, a collaborative school culture may develop. Newmann and Wehlage (1995, as cited in Algargaz, 2014) assume that student achievement increases in a collaborative school culture which promotes a professional learning community among staff. In order to have a collaborative culture, schools should be guided by clear "visions and missions" (Maslowski, 2001, as cited in Algargaz, 2014). Schools with collaborative culture also foster relationships with parents and community members. Furthermore, collaborative school culture supports and emphasizes trusting relationships between teachers and parents (Gruenert, 2005).

Significance of the Study

Today's educators have more and more responsibility that goes beyond the classroom. Principals are encouraged to provide support for creating a caring culture, collaborative culture,

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and a more relaxing and stress-free school environment. School leaders should understand the concept of within each of the six collaborative school culture elements (collaborative leadership, teacher collaboration, professional development, collegial support, learning partnership, unity of purpose) and the importance of focusing on fostering an overall collaborative school culture. This wonderful resource will help school leaders learn how to understand, assess, and transform their school culture for ongoing success. While collaborative culture is currently being viewed as significant in leading the work of administrators, teachers, and students in school. This study attempts to investigate and describe the extent of the collaborative culture in government schools. In addition, it will be useful for school principals to understand their role in leading schools toward more positive, culture- collaborative schools. The findings of this study are important for all stakeholders, including policymakers in creating and improving collaborative culture in schools. Consequently, the findings and data could be used by schools to improve their culture for better achievement of students. This study will also review the benefits of a collaborative school culture, including reduced teacher isolation, social and emotional support, opportunities for professional development and learning, and closer ties with significant stakeholders, such as families and community organizations.

Aims of the Research

The main aim of this research is to study collaborative school culture and student achievement in Basic Education High Schools, Thanphyuzayet Township, Mon State.

Research Questions

This research deals with the following questions regarding the collaborative school culture and student achievement.

- (1) To what extent does collaborative school culture exist at Basic Education High Schools in Thanphyuzayet Township, Mon State?
- (2) What are the differences of collaborative school culture among schools?
- (3) How does collaborative school culture differ at Basic Education High Schools in terms of student achievement?
- (4) Is there any relationship between collaborative school culture and student achievement at Basic Education High Schools in Thanphyuzayet Township, Mon State?

Definition of Key Terms

- **Collaborative School Culture** Collaborative school culture is characterized by teachers and administrators working together toward a common purpose. Members of the school community are actively engaged in collaboration activity, and collectively accepted the responsibility for student learning (Gruenert, 2005).
- **Student Achievement** Student achievement refers to students scoring at or above the minimum level of proficiency as defined by a standardized test. It is a measure of knowledge gained in formal education usually indicated by test scores, grade point average and degrees (Bennett, 2001).

Operational Definitions

Collaborative school culture (CSC)

Collaborative school culture refers to a school environment created by a "leadership model that serves as the foundation for the coalition through whether principals valued teachers' ideas and involved them in decision-making that fosters an ethic of empowerment in the organization and promotes mutual respect, trust, and innovative thinking". Teachers share strong educational values, work together to pursue professional development, and are committed to improve their work. It also includes members of the school community who work together effectively, and are guided by a common purpose.

Student Achievement

In this study, student achievement refers to the average pass rate in matriculation examination Grade 10 for three academic years of (2017-2019) in Thanphyuzayet Township. The average pass rate for three years (2017-2019) in Thanphyuzayet Township was 45.32%. The above average group included schools above 45.32% and below average group included schools below 45.32%.

Limitation of the Study

This study is limited to the selection of a sample of 230 teachers from eight schools as the scope of the study. Due to time constraints, this study is geographically limited to Thanphyuzayet Township, Mon State. This study does not cover the role of other stakeholders such as principals, teachers and parents in students' academic achievement because of time constraints.

Review of Related Literature

Definitions and Concepts of Collaborative School Culture

Collaborative school culture encourages school staff to share things voluntarily. Collaborative school culture is, in fact, a collective responsibility, which is also termed as "teachers' professional culture". In a collaborative school culture, members of the school concentrate on the collective interest for the sake of institution. It is the extent to which the teachers have a sense of responsibility to educate their students. Teachers have high expectations for students' learning and their own performance and professional development. In addition, members of the school are keeping shared beliefs about teaching and learning in the school environment (Alqarqaz, 2014).

Peter and Waterman (1982, as cited in Kelley, 2008) described collaborative school culture as an environment that helps to fulfill three basic human needs: elements of control, meaning in situation, and support. It results in high morale, commitment to teaching, and continuous professional development. It also strengthens the bonds between the school and other stakeholders of the school such as communities and teachers become less isolated.

Sanders and Epstein (2005) observed that the success of schools is heavily influenced by connections between school, family and community. They stated that 'students who receive support from home, family and community are triply benefitted, and are more likely to be academically successful than those who do not'. In collaborative school culture, teachers spontaneously choose and volunteer to work together without external force (Bland, 2012). In fact, a school without a collaborative culture would not accomplish high levels of student learning.

Importance of Collaborative School Culture

Collaboration plays an important role in the school change process. Education literature and studies provide crucial findings related to the vital role of collaboration in the school change process. A studied initiative was to improve student literacy using team (Richardson, 1996; Irwin & Farr, 2004, as cited in Alqarqaz, 2014). In yet another studied initiative, professional literature studied the increase of student achievement through collaborative teacher learning and professional development (Englert & Tarrant, 1995; Dufour et al., 2006, as cited in Alqarqaz, 2014). In each of

these categories of studies, successful school change was impossible without a high level of collaboration.

One of the reasons that researchers such as Hargreaves (1994, as cited in Horton Jr, 2018) encourages collaborative efforts among teachers is to reduce teacher isolation levels so that teachers can share professional practices and have occasion to observe each other in the classroom or discuss their work. The collaborative school culture is important and supports the notion that it helps develop relations among teachers, especially collegial support and trust, instructional improvement, improved student learning, and teacher satisfaction.

Deal and Peterson (1990, as cited in Alqarqaz, 2014) note that a collaborative school as a professional collaborative community. In this community, the school will have a clear vision. Teachers will value the interchange of ideas with colleagues. Strong values exist that support a safe and secure environment. In such an environment, teachers pursue a clear, shared purpose, engage in collaborative activity, and accept a collective responsibility for student learning. There are high expectations of everyone including teachers. There is a strong, however not rigid leadership. This culture also encourages teachers to work collaboratively with each other and with the administration to teach students, so they learn more.

A collaborative school environment was the best setting to improve student achievement. In addition, collaborative school culture helps students reach better achievement and skills and understanding than traditionally organized schools. Collaborative culture and collaborative leadership play important roles in raising teacher satisfaction, as they provide professional stimulation (Telford, 1996).

Characteristics of Collaborative School Culture

Blankstein (2004) states that school cultures that supported collaboration had the following characteristics in common:

- The staff is committed to a shared mission, vision, values, and goals, and recognizes its responsibility to work together to accomplish them
- The functioning of teams is frequently discussed and reassessed
- A plan is developed to provide meaningful time for teams to meet
- Each team has clear purposes and goals
- Educators acquire and share training in effective teamwork strategies
- Strong leaders engage teachers in meaningful collaboration and support their activities and decisions
- The school is characterized by a culture of trust and respect that permits open and willing sharing of ideas and respect for different approaches and teaching styles
- The staff has real authority to make decisions about teaching and learning
- Meetings are well managed and truly democratic, following established protocols for setting the agenda and making decisions

Professional Learning Communities and Collaborative School Culture

In almost all schools, collaborative school culture elements can be found in two main collaboration forms. These are formal and informal collaboration. It can be generalized that any school has specific elements from both forms. One of the structured forms is called Professional Learning community (PLC) model. PLC is one structured model for creating collaborative school culture. Since the PLC model creates collaborative school culture, providing sufficient time for teachers to collaborate is essential for creating collaborative school culture (Alqarqaz, 2014). One of the characteristics of PLC is reflective dialogue that leads to "extensive and continuing conversations among teachers about curriculum, instruction, and student development." PLC can have an extended learning opportunity to foster collaborative learning among colleagues within a particular work environment (Newmann et al., 1996, as cited in Vescio, Ross & Adams, 2006).

PLCs also provides understandings about the situation-specific setting in which principals' and teachers' work. PLCs offer promise by providing a structure that strategically unifies people, time and resources. PLCs can also build overall capacity and engender trust among participants. Interaction among educators can also lead to collaborative efforts of a special kind, known as 'professional learning communities' or 'teacher learning communities' McLaughlin and Talbert (2001, as cited in Dickerson, 2011)

The implementation of professional learning communities allowed for sufficient time for teachers to collaborate. McLaughlin and Talbert (2001, as cited in Dickerson, 2011, p. 26) claimed that "teachers' joint efforts to generate new knowledge of practice and their mutual support of each other professional growth". Eaker et al., (2002) assert that teacher isolation is replaced with collaborative processes that are deeply embedded into the daily life of the school. Teachers are now working together for the instructional good of the organization.

Changing School Culture

Schools, like other organizations, strongly resist changes to the deeply held beliefs, practices and norms that determine 'the way we do things around here' (Deal & Kennedy, 1982; Schein, 2004, as cited in Dickerson, 2011).

Needless to say, transforming the culture of a school involves more than the introduction of a new program or structure. Teachers and support staff may become anxious about their ability to adapt to new practices and learn new skills. There are no simple answers regarding how a school develops a collaborative culture. Moreover, it is likely that the particulars regarding such change vary depending on the context of a given school (Waldron & Mcleskey, 2010). Thus, school leaders seeking to shape school culture must first have a firm grasp of the current culture and its core values, including understanding the environmental context and its stage of development. They must provide the resources and structures necessary to support the desired culture, as well as 'fashion a positive context' for change.

The outcomes of re-culturing are demonstrated through new forms of interaction and professionalism surrounding activities such as joint problem solving, data sharing and analysis, shared decision making, and distributed leadership. These collaborative activities result in added value by generating multiple solutions to complex problems and by providing opportunities to learn from others as school professionals express and share expertise. When these endeavors are part of a school change initiative, research has revealed that such a collaborative culture or community leads to higher levels of trust and respect among colleagues, improved professional satisfaction, change that is maintained over time (Waldron & Mcleskey, 2010).

Methodology

Research design

In this study, a descriptive research design was used. Data were collected through questionnaire. A questionnaire survey was used in quantitative method, and open-ended questions and interviews were also used in qualitative method to study collaborative school culture and student achievement.

Sample

In order to obtain a representative sample, public high schools were selected using a simple random sampling method. Participants were 230 teachers, comprising primary teachers, junior teachers and senior teachers from selected eight Basic Education High Schools, for quantitative study. For the interview questions, 20 teachers from the highest and lowest mean value schools were selected to know the difference between these two schools of collaborative practices, and 8 principals were selected to respond to the open-ended questions for qualitative study.

Research Instrument

A set of questionnaire to collect the required data was developed and made necessary changes based on a modified version of the School Culture Survey- Teacher Form (SCS-TF) - survey instrument developed by Gruenert (2005). It was composed of six dimensions: collaborative leadership, teacher collaboration, professional development, collegial support, unity of purpose and learning partnership. It contains 23 items for collaborative leadership, 8 items for teacher collaboration, 10 items for professional development, 8 items for collegial support, 7 items for unity of purpose and 9 items for learning partnership. All the 65 items included in this questionnaire were rated in four point Likert scale ranging from 1 = strongly disagree, 2 = disagree, 3 = agree and 4 = strongly agree. The opened-ended questions were also included in this questionnaire.

Validity and Reliability

The questionnaire was developed under the advice and guidance of the supervisor. For the validation of the research instrument, it was reviewed by twelve experts who have special knowledge and experience in the field of this study from Department of Educational Theory, Yangon University of Education. Modifications were made under the supervision of the supervisor.

Cronbach's alpha was used to measure the reliability of the questionnaire. The total reliability coefficient for collaborative school culture is 0.86.

Procedure

First, the relevant literature was explored. Next, to find out the required data, the instrument was conducted under the guidance of the supervisor and co-supervisor. After modifying the instrument, pilot testing was conducted with a sample of 60 teachers from No (2) Basic Education High School, Mudon Township, Mon State in the 2nd week of September 2019. After testing the pilot, the necessary changes were made under the guidance of the supervisor. The modified questionnaire was then distributed to eight selected Basic Education High Schools in Thanphyuzayet Township in September 25, 2019. The required data were collected after two weeks. The valid response rate was 100%.

Data Analysis

The data collected from the questionnaires were systematically analyzed by using SPSS (Statistical Package for the Social Science) software version 25. Descriptive analysis was used to compute means and standard deviations of collaborative school culture. Independent samples *t* Test was used to compare means and to find out whether there is any difference between teachers' perceptions on collaborative school culture in terms of student achievement such as above average group and below average group. ANOVA was used to compare the means between schools. In order to know whether there is any difference between schools, Games-Howell post hoc test was

used. Finally, Pearson correlation was used to identify whether there were significant relationships between collaborative school culture and student achievement.

In qualitative analysis, the required data was obtained by answering open-ended questions and interview questions to compare the quantitative analysis that focuses on numbers and qualitative analysis that focuses on words. The answers to open-ended questions and interview procedures were analyzed using knowledge from reviewing related literature, preparing and reading line by line, coding the importance categories, and categorizing and organizing the data. Finally, the interpretation and summarization of the findings were also conducted to draw the conclusions.

Findings

Quantitative Findings

1. Findings for Teachers' Perceptions of Collaborative School Culture

The descriptive results of teachers were shown in the following tables for each dimension in Basic Education High Schools in Thanphyuzayet Township, Mon State.

Generally, the mean value of collaborative school culture (3.17) indicates that teachers' perceptions of collaborative school culture were moderately strong.

Table 1 Mean Values and Standard Deviations of Teachers' Perceptions of Collaborative School Culture (N=230)

No.	Dimensions	Mean	SD
1	Collaborative Leadership	3.20	0.25
2	Teacher Collaboration	3.09	0.27
3	Professional Development	3.22	0.30
4	Collegial Support	3.24	0.37
5	Unity of Purpose	3.16	0.34
6	Learning Partnership	3.08	0.26
	Overall Collaborative School Culture	3.17	0.24

2. Findings for Collaborative School Culture Among Schools

 Table 2 Comparison of Overall Mean Values and Standard Deviations of Teacher's Perceptions of Collaborative School Culture Among Schools

No.	Schools	Ν	Mean	SD
1	School A	43	3.32	0.29
2	School B	11	3.22	0.23
3	School C	29	3.16	0.16
4	School D	25	3.12	0.13
5	School E	68	3.10	0.24
6	School F	18	3.34	0.21
7	School G	21	3.07	0.13
8	School H	15	3.08	0.14

According to Table 2, the results revealed that the extent of collaborative school culture was the highest in school F while the lowest in the school G. Among eight schools, the collaborative school culture of school A and school F was found that strong culture and other schools such as school B, C, D, E, G and H were moderately strong.

No.	Dimensions		Sum of	df	Mean	F	n
110.	Dimensions		Squares	иј	Square	Ľ	р
		Between Groups	1.44	2	.21	3.44	.002**
1	Collaborative	Within Groups	13.29	227	.06		
	Leadership	Total	14.73	229			
		Between Groups	1.72	2	.25	3.75	.001**
2	Teacher	Within Groups	14.55	227	.07		
	Collaboration	Total	16.27	229			
		Between Groups	4.44	2	.63	8.81	.000***
3	Professional Development	Within Groups	15.99	227	.07		
		Total	20.43	229			
	Collegial Support	Between Groups	6.08	2	.87	7.40	$.000^{***}$
4		Within Groups	26.06	227	.12		
		Total	32.14	229			
		Between Groups	5.49	2	.79	8.22	.000***
5	Unity of	Within Groups	21.20	227	.10		
	Purpose	Total	26.69	229			
		Between Groups	1.32	2	.19	3.03	.005**
6	Learning	Within Groups	13.83	227	.06		
	Partnership	Total	15.15	229			
		Between Groups	2.18	7	.31	6.53	$.000^{***}$
	Overall	Within Groups	10.57	222	.05		
		Total	12.75	229			

 Table 3 The ANOVA Results of Teachers' Perceptions of Collaborative School Culture Among Schools
 (N=230)

p*<.05,*p*<.01,****p*<.001 at significant level

Table 3 shows the ANOVA results for the collaborative school culture among schools. According to Table 3, there were significant differences between all dimensions among eight schools.

In order to know which specific means are different from which other ones, Games- Howell post hoc test was used as suggested by Field (2013), as the assumption of homogeneity of variances was violated.

	DI 1				
No.	Dimensions	(I) Schools	(J) Schools	Mean Difference (I-J)	p
		School A	School G	0.25*	.001**
1	Collaborative		School H	0.20*	.010*
	Leadership	School F	School G	0.21*	.001**
			School H	0.16^{*}	.011*
2	Teacher	School F	School D	0.18^{*}	.009**
	Collaboration		School E	0.18^{*}	$.010^{*}$
		School A	School D	0.21*	.025*
			School E	0.24*	.004**
			School G	0.23*	$.010^{*}$
3	Professional		School H	0.27^{*}	.015*
	Development	School F	School C	0.36*	$.016^{*}$
			School D	0.39*	$.005^{**}$
			School E	0.42^{*}	.002**
			School G	0.42*	.003**
			School H	0.46*	.002**
		School A	School C	0.29*	.014*
			School D	0.27^{*}	.047*
4	Collegial		School E	0.38*	$.000^{***}$
	Support		School G	0.32^{*}	$.020^{*}$
			School H	0.39*	.001**
		School A	School C	0.31*	$.001^{**}$
			School D	0.33*	$.002^{**}$
5	Unity of		School E	0.30*	.001**
	Purpose		School G	0.37*	.000****
	-		School H	0.28^{*}	.018*
		School F	School G	0.48^{*}	.030*
		School A	School D	0.20*	.006**
			School E	0.22*	.003**
			School G	0.24*	.001**
	Overall		School H	0.24*	.003**
		School F	School D	0.22*	.013*
			School E	0.24*	007^{**}
			School G	0.26*	.002**
			School H	0.26*	.002

 Table 4
 Games-Howell Results of Teachers' Perceptions of Collaborative School Culture Among Schools

 (N=230)

p*< .05,*p*< .01,****p*< .001 at significant level

Games-Howell post hoc test indicates that there were significant differences in collaborative leadership, teacher collaboration, professional development, collegial support, and unity of purpose. However, no significant differences were found in only one dimension as "learning partnership" among the schools.

3. Findings for Collaborative School Culture in terms of Student Achievement

To measure the collaborative school culture in terms of student achievement, the average matriculation pass rate of three consecutive years in the selected eight Basic Education High Schools of Thanphyuzayet Township were classified into two groups in which the schools with

above average group included School A, B and C, and the schools with below average group included School D, E, F, G and H according to the average pass rates in Thanphyuzayet Township.

Table 5	Mean Values and Standard Deviations of Teachers' Perceptions of Collaborative
	School Culture in terms of Student Achievement

		(Mean/SD)			
No.	Dimensions	Above average group (N=83)	Below average group (N=147)		
1	Collaborative Leadership	3.25 (0.28)	3.17 (0.24)		
2	Teacher Collaboration	3.17 (0.32)	3.04 (0.21)		
3	Professional Development	3.30 (0.31)	3.17 (0.28)		
4	Collegial Support	3.36 (0.41)	3.17 (0.34)		
5	Unity of Purpose	3.24 (0.35)	3.11 (0.33)		
6	Learning Partnership	3.16 (0.33)	3.03 (0.19)		
	Overall	3.25 (0.25)	3.13 (0.22)		

p*<.05, *p*<.01,****p*<.001 at significant level

According to Table 5, the higher academic achieving schools had more collaborative school culture than the lower academic achieving schools.

4. Findings for the Relationship between Collaborative School Culture and Student Achievement

The main aim of this study is to examine the relationship between collaborative school culture and student achievement. The correlation between collaborative school culture and student achievement is shown in Table 6.

According to Table 6, it can be interpreted that there was a low positive relationship between collaborative school culture and student achievement (r= .309, p< .01) for this study.

Dimensions		Collaborative School Culture	Student Achievement
Collaborative	Correlation Coefficient	1	.309**
School Culture	Sig. (2-tailed)		.000
Student	Correlation Coefficient	.309**	1
Achievement	Sig. (2-tailed)	.000	

Table 6 Correlation between Collaborative School Culture and Student Achievement

Summary of Qualitative Findings

As the qualitative research findings result, the principal facilitates collaboration rather than leading every group and takes teachers' opinions about school activities and processes. However, most of the teachers, especially the teachers from both the highest mean value school and the lowest mean value school, got more opportunities to participate in the decision-making process so the principals should be given an equal chance for it. Furthermore, the school vision stated very clearly how the purpose should be implemented but some other teachers are not well aware of the purpose of the school. These teachers need to be told how to go about implementing the school vision.

Concerning creating opportunities for professional growth of the teachers, the principals give the opportunities to teachers to plan together, observe one another and re-plan for further improvements. It was observed that teachers from the lowest mean value school in school-based

programs do not have any opportunities to improve their teaching performances through their colleagues. In their school, there is only the Continuous Professional Development (CPD) program organized by Department of Basic Education under the Ministry of Education and it has been implemented at the beginning of this academic year (2019-2020).

It was also found that the senior teachers from both schools less focused on collaboration to exchange their experiences and ultimately contribute to the overall success of teachers in their teaching. However, other almost all teachers in the whole school regularly collaborate and conduct the organizational learning of the school for their professional development. Similarly, all teachers always support each other in planning the lesson, sharing resources and giving necessary advice on a daily basis, but they take place in informally. In fact, some teachers had excellent attitude toward school development.

Furthermore, the relationship between principals, teachers, parents and community members is still needed for improving the success of the school because of the parents and community members from low achieving school do not want to come to school at the time of parent's meeting. Moreover, there are many reasons for that such as lack of time from the parent side to follow up on their children's education because most households came from migrant families and the Government salt scheme, and then the education level of the parents. Likewise, in high achieving schools, the principals and teachers encourage the parents to support their children but the involvement of the parents' side needed to be more. It has been found that this relationship depends on the parents' attitudes and their educational levels and their socioeconomic status. Nevertheless, in our study, these factors are not considered.

Discussion and Conclusion

Based on the analysis of the survey, the following discussion and conclusion were drawn to be more effective collaborative school culture and to improve student academic achievement in Basic Education High Schools in Thanphyuzayet Township, Mon State.

According to the descriptive analysis, it was observed that there is an agreement among teachers that collaborative school culture dimensions such as collaborative leadership, teacher collaboration, professional development, collegial support, unity of purpose and learning partnership which are available in their schools to a moderately high degree. So, it can be concluded that those schools had collaborative school culture that supported teacher, parent, and student relationships and supported all parties to work together to improve school performance and student achievement. However, this study reveals that collaboration among teachers in all schools was at its highest rate, especially within the same subject. According to the quantitative and qualitative research finding, it can be concluded that collaboration among teachers is neither isolated nor they work as a whole-school, but they collaborated within smaller groups. Schools need to be making teams from different subjects to encourage cross-curricular collaboration

When analyzing, there were significant differences between schools on collaborative culture, especially School A and School F are the most significant differences in collaborative school culture. By the overall mean values, the results also revealed that the extent of collaborative school culture is the highest in School A and School F. The fundamental idea here is that different collaborative tasks include different extents of collaboration (Hu, 2006). Thus, the influence of the principal could be the main factor behind the differing measurements of collaborative school culture between schools. Furthermore, principals can establish collaborative relationships with teachers; teachers exchange their experiences, challenges and solutions and ensure that all the students are actively engaged in classroom activities.

The selected schools from Thanphyuzayet Township were divided into two groups based on the matriculation average pass rate of the previous three years of 2017 to 2019. According to the total mean values for teachers' perceptions on collaborative school culture in terms of student achievement, the high achieving schools whose pass rate were above average matriculation pass rate have higher mean values (mean= 3.25) than low achieving schools whose pass rate were below average matriculation pass rate (mean= 3.13) in collaborative school culture. It can be interpreted that the teachers from the first group perceived that their schools possessed more collaborative school culture, meaning high achieving schools have a more collaborative school culture. The results of independent samples t Test analysis indicated that there were significant differences of collaborative school culture between schools in each respective group. It can be concluded that all schools of teachers' perceptions toward collaborative school culture may differ. Teachers who are engaged and have a high degree of collaboration have greater student achievement in their schools (Goddard et al., 2007; Goddard et al., 2010, as cited in Horton Jr, 2018). All principals should always encourage the teachers to collaborate with their colleagues to be continued effective student achievement in schools.

There was a significantly positive correlation between collaborative school culture and student achievement. This finding is consistent with those of earlier studies by Gruenert (2005) that concludes that collaborative school cultures are the best setting for high levels of student achievement. Similarly, the study conducted by Horton Jr (2018) suggests that principals can enhance the achievement of the student indirectly and directly through creating a strong positive school culture. The literature has suggested that the six dimensions of collaborative school culture were important. Teachers cannot be responsive to all of the students' needs without the assistance and support of their colleagues, administrators, and community. A collaborative school culture provides a platform for teachers and principals that is conducive to sharing and learning together.

Recommendations

Teachers should have mutual respect, collaborative and supportive attitudes in relationship with principals, colleagues, parents, and students. Parent involvement can be an important factor for improving student achievement. Partnerships with parents should be improved through various methods. First, regular meetings with parents can help identify the concept of collaboration, discuss the role of parents and encourage parents to work with the school, especially teachers. Second, the media should be involved in raising the awareness of the important role of parents and to encourage parents to participate in the school affairs through an awareness program.

Teachers also should have mutual trust and friendly relationship with their colleagues. Schools should provide enough time for teachers to plan together, observe and discuss teaching practices designed to improve student performance, create applicable teaching materials; to establish monthly meetings between teachers to collaborate and make teams from different subjects to encourage cross-curricular collaboration. Finally, principals should create conditions that enhance the operation of collaborative school culture such as trust, openness, and involving teachers in decision-making, especially in teaching practices. Principals need to set up the master schedule and reflect collaborative planning time for teachers. This collaborative planning time needs to focus on what needs to be done in order to increase student achievement. Principals need to assess the current state of school culture prior to making any major changes. The prominent role of the principal is to stimulate colleagues' professional learning communities and create working teams to improve the quality of the student and the school. In addition, continued professional development activities should be provided to help principals to update their knowledge of collaborative school culture.

Suggestions for Future Research

- Further research could be conducted to assess collaborative school culture, taking all stakeholders' viewpoints into account, and especially parents' perspective.
- Leadership styles are very important for collaborative school culture. Principals' leadership styles that could facilitate or hinder building collaborative school culture should be investigated.
- A study could be conducted to link the collaborative school culture with teachers' job satisfaction.
- A study should be conducted about teachers' feeling of changing school culture and their willingness to create collaborative school culture.
- Other studies could be conducted to consider how the collaborative school culture is affected by some factors such as teachers' experiences, teachers' educational backgrounds, parents' educational levels, etc.
- Finally, since the research included only 8 schools for analysis, further research should be conducted with a larger, more diverse sample to improve the generalizability of the results.

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