RELATIONSHIP BETWEEN PROFESSIONAL LEARNING COMMUNITIES AND TEACHER SELF-EFFICACY

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Abstract

The focus of this study is to explore the relationship between professional learning communities and teachers' self-efficacy at the selected nine Basic Education High Schools in Sagaing Township. In this study, social cognitive theory, adult learning theory and social capital theory were used. For the research design, descriptive research design was used. The quantitative and qualitative methods were used to collect the data. The Professional Learning Community Assessment- Revised (PLCA-R) survey instrument developed by Oliver, Hipp & Huffman (2010) and the Teachers' Sense of Efficacy Scale (TSES) questionnaire developed by Tschannen-Moran and Woolfolk Hoy (2001) were utilized. A total of 301 teachers from the selected nine schools participated in this study. By utilizing SPSS version 20, Descriptive statistics, one way ANOVA, and Pearson Product Moment Correlation were used to identify differences between variables. Based on the findings, the mean value ($\bar{x}$ =4.27) showed that professional learning communities highly implemented in the selected schools. The mean score of teacher self-efficacy ($\bar{x}$ =4.03) pointed out that all the teachers from the selected schools possessed high self-efficacy level. There were significant differences in professional learning communities and teacher self-efficacy according to teachers' position and professional qualification. As a result, a positive and weak correlation (r = .126, $\rho < 0.01$) was found between professional learning communities and teacher self-efficacy. The more professional learning communities are implemented, the higher teacher self-efficacy will develop as well. Teachers could have peer coaching and mentoring to observe peers, share knowledge and offer encouragement so they could enhance their professional development. Thus, a school community should be created to develop the teachers' judgment of their capabilities to foster desired outcomes for student.
Keywords: Professional learning community, Self-efficacy, Teacher self-efficacy

Introduction

Educational outcomes and skills for learners are being increasingly linked with quality of teachers. There is a need for ongoing professional learning to ensure that teaching practices are updated within an era of considerable educational reform. An important key to increase human capacity for educational improvement is creating the school as a learning organization or community. So creating professional learning communities have become one of the most talked about ideas in education today. Professional learning communities are being developed to support improvement and change across the education system.

Significance of the Study

The aim of educational institutions and their teachers is to improve student achievement. Instructional leaders must identify ways to increase the teaching capacity of the teachers with their leadership and, in turn, improve students' performance. Teacher effectiveness has a direct impact on student achievement. Demands for increased accountability have caused schools to look for ways to boost teacher effectiveness and, subsequently, student achievement. Professional learning community is a model being touted as a means to increase teacher

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effectiveness and student learning. Professional learning communities are the integration of several concepts that when together, hold great promise for improving teacher quality and therefore student achievement (Porter, 2014). So, professional learning communities are created in order to enhance the self-efficacy of teachers in their communities.

Purposes of the Study

The main purpose of the study is to explore the relationship between professional learning communities and teachers' self-efficacy at the Basic Education High Schools in Sagaing Township, Sagaing Region.

The specific purposes of the study are to investigate teachers' perceptions on implementation of professional learning communities, to investigate teachers' perceptions on their self-efficacy in the classroom, and to find out the relationship between professional learning communities and teachers' self-efficacy at the Basic Education High Schools in Sagaing Township.

Research Questions

This study seeks to answer the following questions:

1. To what degree do teachers perceive on implementation of professional learning communities at the selected Basic Education High Schools in Sagaing Township?
2. To what degree do teachers perceive on their self-efficacy in the classroom at the selected Basic Education High Schools in Sagaing Township?
3. Are there any significant differences in professional learning communities and teachers' self-efficacy according to teachers' demographic data at the selected Basic Education High Schools in Sagaing Township?
4. Is there any significant relationship between professional learning communities and teachers' self-efficacy at the selected Basic Education High Schools in Sagaing Township?

Theoretical Framework

In formulating a framework for examining the relationship of PLCs and teacher self-efficacy, social cognitive theory provided a foundation. Using this as a framework for improvement, teachers can adjust their self-beliefs; improve their pedagogy and instructional practices. Hord (1997) states that the practice of a professional learning community (PLC) is to seek, share and act on their learning. The concept of PLC is connected with notions of enquiry, reflection and self-evaluating schools. Especially, professional learning communities provide lasting benefits for teachers. Such benefits result in higher human and social capital.

Scope of the Study

The participants of the study are teachers (primary teachers, junior teachers and senior teachers) from the selected Basic Education High Schools in Sagaing Township, Sagaing Region.

Definitions of Key Terms

Professional Learning Community (PCL): professional learning community can be defined as "a collegial group of administrators and school staff who are united in their commitment to student learning. They share a vision, work and learn collaboratively, visit and review other classrooms, and participate in decision making" (Hord, 1997).

Self-efficacy: Self-efficacy is defined as "a personal judgment of how well one can execute courses of action required to deal with prospective situations" (Bandura, 1997, cited in Heaton, 2013).

Teacher self-efficacy: Teacher self-efficacy is defined as "a teacher's judgment of his or her capabilities to bring about desired outcomes of student engagement and learning, even among those students who may be difficult or unmotivated" (Tschannen-Moran and Woolfolk Hoy, 2001).

Review of Related Literature

Professional Learning Communities (PLCs)

McRel (2003, as cited in Turner, 2015) defined a professional learning community as a group of people that shares and critically questions professional practices in a collaborative, reflective way that is focused on learning and growth.

Other definitions identify PLCs as a process, a strategy, or a type of school culture. Feger and Arruda (2008, as cited in Turner, 2015) define PLCs as a strategy for improving student achievement that focuses on creating a collaborative school culture that is focused on student learning. Protheroe (2008, as cited in Turner, 2015) defined a professional learning community as a school culture that values and maximizes the collective strengths of educators. The idea of PLC is one will worth pursuing as a means of promoting school and system-wide capacity building for sustainable improvement and pupil learning (Bolam, McMahon, Stoll, Thomas, Wallace, & Hawkey, 2005).

The success of professional learning community largely depends on collective enquiry, reducing isolation among teachers, reflection on current institutional practices, sharing responsibility for the learning of all students and creating a capacity for learning (Sai & Siraj, 2015). So, educators who are building a professional learning community recognize that they must work together to achieve their collective purpose of learning for all (DuFour, 2004).

Organizational Learning Theory: Organizational learning theory provides a lens to view and understand school change as school leaders and teachers create professional learning communities within their school sites (Liebman et al, 2005).

Adult Learning Theory: Adult education and adult learning theory contribute to the knowledge of how teachers learn and develop within a school environment. Shorter (2012) states that the aspects and characteristics of the forms of teacher professional development are associated with theories of adult education and adult learning.

Social Capital Theory: Social capital can be defined as "the sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit" (Nngapiet & Ghoshal, 1998; cited in Camps and Marques, 2011). Camps and Marques (2011) describe as the social capital is one of the three subcategories of intellectual capital, human capital and organizational capital. Trust and social relations are critical elements of successful professional learning communities (Tsia & Ghoshal, 1998; Cohen & Prusak, 2001; cited in Shorter, 2012). Hord's five dimensions of PLC are consistent with certain elements of social capital theory and distributive styles of leadership (Shorter, 2012).

Hord's Model: Hord (1997) describes the professional learning community by five characteristics: supportive and shared leadership; collective creativity; shared values and vision; shared personal practices; and supportive conditions for sustaining the learning community. A

later modified version developed by Hipp and Huffman (2010, as cited in Stamper, 2015) used the following dimensions: shared and supportive leadership; shared values and vision; collective learning and application; shared personal practices; supportive conditions-relationships; and supportive conditions-structures which lead to the development of the Professional Learning Community Assessment Revised (PLCA-R) survey instrument.

Self-Efficacy

In Bandura's social learning theory, self-efficacy was posited as a system of self-regulation, a key piece in behavioral change and cognitive development (Heaton, 2013). Bandura (1977), as cited in Heaton, 2013, defined self-efficacy as "the conviction that one can successfully execute the behavior required to produce a given attainment".

Bandura (1997), as cited in Heaton, 2013, explored self-efficacy as an instrument useful in predicting behavior and goal-setting tendencies. He described individuals' self-efficacy as shaped through four significant information sources: (1) mastery experiences, (2) vicarious experiences, or witnessing others' experiences, (3) social persuasion and (4) physiological and affective states. He proposed that these four sources are powerful vehicles that function to shape and determine an individual's level of self-efficacy.

Teacher Self-Efficacy: Tschannen-Moran and Woolfolk Hoy (2001) defined teacher self-efficacy as "a teacher's beliefs in his or her capacities to foster desirable outcomes for students". Efficacious teachers believe that they can motivate students, develop coping skills and strategies to regulate their emotion, and work together with students and their colleagues to achieve learning goals.

Tschannen-Moran and Woolfolk Hoy (2001) identified the three dimensions of teacher self-efficacy: efficacy in student engagement, efficacy in instructional strategies and efficacy in classroom management.

Social Cognitive Theory: Bandura's social cognitive theory is the study of how and why people behave in the manner that they do. The concept of social cognitive theory is that an individual's behaviors and responses in most situations are shaped by the actions that he or she observed in others. These actions are observed in both natural and social environments. These observations are remembered by the observer and influence social behaviors and cognitive processes such as developing self-beliefs or self-efficacy (Heaton, 2013). Since self-efficacy is developed from external experiences and self-perception, it is a critical component of social cognitive theory.

Methodology

This study was conducted with descriptive research design. Questionnaire survey was used in quantitative study and open-ended questions were also used in qualitative study to engage a full, meaningful answer using the subject's own knowledge and to get more objective responses. Simple randomly sampling method was used.

Sample

The sample was comprised of 9 Basic Education High Schools in Sagaing Township, Sagaing Region. Totally 301 teachers (primary teachers, junior teachers and senior teachers) from nine selected Basic Education High Schools, completed the questionnaires.

Instrumentation

There were two research instruments. Professional Learning Community Assessment-Revised (PLCA-R) survey instrument developed by Olivier, Hipp & Huffman (2010, cited in Heaton, 2013) was utilized in this study. Five-point Likert scale ranging from strong disagree to strong agree was used to measure the degree of agreement. Teachers' Sense of Efficacy Scale (TSES) questionnaire developed by Tschannen-Moran and Woolfolk Hoy (2001) was utilized in this study. Five-point Likert scale ranging from nothing to a great deal was used to measure the level of teachers' self-efficacy. Furthermore, teachers' demographic information concerning current position and professional training qualification were also collected. Open-ended questions on implementation of professional learning community by teachers and their self-efficacy were a part of the qualitative questionnaire. The open-ended questionnaire was constructed with three questions for teachers, and was developed under the guidance of the supervisor.

***Instrument Validity*:** In order to obtain the content validity for teachers' perception on implementation of professional learning community and teachers' self-efficacy questionnaire, expert review was conducted by ten experienced educators, who have deep knowledge and closely relationship with this area, from the Department of Educational Theory, Sagaing University of Education and University for the Development of the National Races of the Union.

***Instrument Reliability*:** Based on the pilot test, the reliability coefficients (Cronbach's Alpha) were 0.899 for the professional learning communities' items and 0.929 for the teacher self-efficacy items.

Procedure

First and foremost, the related literature was explored. After that, in order to get required data, the questionnaires were translated from English under the guidance of the supervisor. For the clarity of each item, the wording and content of items were revised and modified according to the result of experts review.

The pilot study was undertaken to refine the modified questionnaire. After taking permission from the responsible person, the questionnaires were distributed to the schools on 2nd July, 2018. Distributed questionnaires were collected on 12th July, 2018 and the respondent rate was 99.3%.

Data Analysis

The Statistical Package for the Social Sciences (SPSS) version 20 was used to analyze the data. Data analysis was computed by using descriptive statistics, One-Way ANOVA, and the Pearson-product moment correlation. The responses of the three open-ended questions were analyzed and synthesized to complete the qualitative findings of the professional learning communities and teachers' self-efficacy from the selected schools.

Findings

Research findings are presented by using descriptive statistics: means and standard deviations, One-Way ANOVA and Person product-moment correlation. Teachers' responses to open-ended questions are also presented.

1. Findings for Teachers' Perceptions on Implementation of Professional Learning Communities in the Selected Basic Education High Schools

The descriptive results of teachers' perceptions on implementation of professional learning communities were shown in Table 1.

Table 1 Mean Scores and Standard Deviations for Implementation of Professional Learning Communities (PLCs) in selected Basic Education High Schools, Sagaing Township

School(n)	A(51)	B(23)	C(18)	D(34)	E(48)	F(30)	G(26)	H(41)	I(30)	Overall
Mean (SD)	4.05 (0.19)	3.99 (0.18)	4.11 (0.19)	3.97 (0.15)	4.11 (0.29)	3.99 (0.33)	**4.12** (0.28)	3.97 (0.19)	3.98 (0.21)	**4.03** **(0.24)**

1.00-2.33 = Low Level 2.34-3.66= Moderate Level 3.67-5.00 = High Level

The differences in means and standard deviations of the six dimensions of the professional learning communities implemented in the selected schools are presented in Table 2.

Table 2 Means and Standard Deviations for Six Dimensions of Professional Learning Communities (PLCs) Implemented in selected Basic Education High Schools,

PLCs Schools	Dimensions of Professional Learning Communities					
	SSL	SVV	CLA	SPP	SCR	SCS
A	4.07(0.23)	4.06(0.21)	4.07(0.19)	4.01(0.23)	4.07(0.31)	3.99(0.26)
B	3.95(0.35)	3.96(0.23)	4.09(0.17)	4.08(0.29)	4.11(0.25)	3.74(0.38)
C	4.04(0.13)	4.09(0.26)	4.21(0.27)	4.13(0.29)	4.17(0.22)	4.01(0.17)
D	3.94(0.17)	3.96(0.25)	4.01(0.14)	3.98(0.14)	4.02(0.14)	3.91(0.23)
E	4.05(0.17)	4.08(0.29)	4.12(0.35)	4.11(0.36)	4.21(0.38)	4.08(0.32)
F	4.05(0.38)	4.05(0.33)	4.03(0.39)	3.89(0.43)	4.03(0.31)	3.91(0.43)
G	4.06(0.31)	4.09(0.29)	4.18(0.34)	4.18(0.38)	4.16(0.35)	4.05(0.28)
H	3.98(0.21)	3.95(0.28)	4.00(0.22)	4.01(0.23)	3.96(0.26)	3.90(0.27)
I	3.78(0.46)	3.99(0.23)	4.12(0.27)	4.07(0.25)	4.03(0.25)	3.89(0.28)
Overall	3.99(0.29)	4.03(0.27)	4.08(0.27)	4.04(0.30)	4.08(0.30)	3.95(0.31)

1.00-2.33 = Low Level   2.34-3.66= Moderate Level   3.67-5.00 = High Level

SSL = Shared and Supportive Leadership, SVV = Shared Values and Vision SPP= Shared Personal Practice, CLA = Collective Learning and Application,   SCR= Supportive Conditions-Relationships, SCS = Supportive Conditions-Structures

Table 3 presents mean values and standard deviations for teachers' perception of the professional learning communities implemented by position.

Table 3 Mean Values and Standard Deviations of Professional Learning Communities (PLCs) Implemented by Teachers according to position

PLCs	PT (N=75)		JT (N=137)		ST (N=89)	
	Mean	SD	Mean	SD	Mean	SD
SSL	4.08	0.3	3.99	0.21	3.94	0.36
SVV	4.09	0.33	4.01	0.22	4.01	0.27
CLA	4.2	0.33	4.04	0.22	4.05	0.28
SPP	4.16	0.33	4.02	0.23	3.98	0.34
SCR	4.17	0.34	4.06	0.28	4.03	0.27
SCS	4.01	0.38	3.95	0.23	3.90	0.34
Overall PLCs	4.12	0.28	4.01	0.19	3.98	0.25

PT=Primary Teachers, JT=Junior Teachers, ST=Senior Teachers

Table 4 presents One-Way ANOVA results for the professional learning communities implemented by position.

Table 4 One-Way ANOVA Results for the Differences in Professional Learning Communities (PLCs) Implemented by Teachers according to Position (N=301)

Variable		Sum of Square	df	Mean Square	F	p
SSL	Between Groups	.842	2	.421	5.242	.006[**]
	Within Groups	23.931	298	.080		
	Total	24.773	300			
CLA	Between Groups	1.362	2	.681	9.525	.000[***]
	Within Groups	21.306	298	.071		
	Total	22.668	300			
SPP	Between Groups	1.377	2	.689	7.979	.000[***]
	Within Groups	25.722	298	.086		
	Total	27.100	300			
SCR	Between Groups	.938	2	.469	5.340	.005[***]
	Within Groups	26.180	298	.088		
	Total	27.118	300			

Note: **p>01, ***P<001

In Table 5, the results of Tukey HSD Multiple comparisons for each dimension of professional learning communities implemented by position were shown.

Table 5 The Results of Tukey HSD Multiple Comparisons for Professional Learning Communities (PLCs) Implemented by Teachers according to Position (N=301)

Variable	(I)Position	(J)Position	Mean difference(I-J)	p
SSL	PT	ST	0.143	**.004**
CLA	PT	JT	0.159	**.000**
	PT	ST	0.150	**.001**
SPP	PT	JT	0.138	**.003**
	PT	ST	0.174	**.001**
SCR	PT	JT	0.113	**.022**
	PT	ST	0.144	**.006**

In Table 6, the mean values and standard deviations for teachers' perception of the professional learning communities implemented by professional qualification were shown.

Table 6 Mean Values and Standard Deviations of Professional Learning Communities (PLCs) Implemented by Teachers according to Professional Qualification.

PLCs	Certificate(N=135)		Diploma(N=80)		B.Ed (N=79)		M.Ed (N=7)	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
SSL	4.02	0.26	4.02	0.29	3.94	0.33	3.99	0.24
SVV	4.03	0.25	4.05	0.32	3.99	0.27	4.00	0.17
CLA	4.07	0.23	4.15	0.35	4.03	0.27	4.00	0.12
SPP	4.06	0.26	4.11	0.33	3.99	0.33	3.94	0.31
SCR	4.07	0.298	4.13	0.35	4.04	0.25	3.86	0.25
SCS	3.97	0.27	3.97	0.34	3.93	0.34	3.64	0.25
Overall PLCs	4.03	0.21	4.07	0.28	3.99	0.23	3.90	0.14

One-Way ANOVA results for the implementation of professional learning communities according to professional qualification were shown in table 7.

Table 7 One-Way ANOVA Results for the Differences in Professional Learning Communities (PLCs) Implemented by Teachers according to Professional Qualification   (N=301)

Variable		Sum of Square	df	Mean Square	F	P
CLA	Between Groups	.621	3	.207	2.787	.041*
	Within Groups	22.047	297	.074		
	Total	22.668	300			
SCS	Between Groups	.806	3	.269	2.840	.038*
	Within Groups	28.084	297	.095		
	Total	28.890	300			

Note: *$p < 05$,

In Table 8, the results of Tukey HSD Multiple comparisons for each dimension of professional learning communities according to professional qualification were shown.

Table 8 The Results of Tukey HSD Multiple Comparisons for Professional Learning Communities (PLCs) according to Professional Qualification   (N=301)

Variable	(I)Position	(J)Position	Mean difference(I-J)	P
CLA	Diploma	B.Ed	0.11709	**.036**
SCS	Certificate	M.Ed	0.32974	**.031**

2. Findings for Teachers' Self-Efficacy Perceived by Teachers themselves in the Selected Basic Education High Schools

The descriptive results of teacher self-efficacy perceived by teachers themselves were shown in Table 9.

Table 9 Mean Scores and Standards Deviation for Teacher Self-Efficacy Perceived by Teachers Themselves in Selected Basic Education High Schools, Sagaing Township

School(n)	A(51)	B(23)	C(18)	D(34)	E(48)	F(30)	G(26)	H(41)	I(30)	Overall
Mean (SD)	4.41 (0.47)	4.31 (0.49)	**4.47** (0.36)	4.36 (0.59)	4.06 (0.66)	4.4 (0.54)	4.21 (0.48)	4.06 (0.87)	4.3 (0.49)	**4.27 (0.6)**

1.00-2.33 = Low Level   2.34-3.66= Moderate Level   3.67-5.00 = High Level

The descriptive statistics also pointed out the difference in means and standard deviations of three dimensions of teacher self-efficacy in selected schools were presented in Table 10.

Table 10 Means and Standard Deviations for Three Dimension of Teacher Self-Efficacy in selected Basic Education High Schools, Sagaing Township   (N=301)

Dimension	A	B	C	D	E	F	G	H	I
ESE	4.27 (0.50)	4.18 (0.52)	4.35 (0.39)	4.33 (0.59)	4.01 (0.65)	4.25 (0.49)	4.07 (0.58)	3.98 (0.81)	4.07 (0.47)
EIS	4.5 (0.52)	4.42 (0.51)	4.53 (0.39)	4.36 (0.63)	4.12 (0.68)	4.51 (0.59)	4.21 (0.58)	4.09 (1.03)	4.49 (0.51)
ECM	4.46 (0.48)	4.33 (0.54)	4.51 (0.39)	4.39 (0.55)	4.05 (0.71)	4.44 (0.58)	4.35 (0.39)	4.1 (0.82)	4.35 (0.57)

1.00-2.33 = Low Level   2.34-3.66= Moderate Level   3.67-5.00 = High Level ESE = Efficacy in student Engagement, EIS = Efficacy in instructional Strategies ECM = Efficacy in Classroom Management

The mean values and standard deviations for teacher self-efficacy perceived by teacher according to their position were shown in Table 11.

Table 11 Mean Values and Standard Deviations for Teacher Self-Efficacy Perceived by Teacher according to Their Position

Teachers' Self-Efficacy	PT (N=75)		JT (N=137)		ST (N=89)	
	Mean	SD	Mean	SD	Mean	SD
ESE	4.17	0.66	4.24	0.57	4.02	0.57
EIS	4.34	0.79	4.41	0.67	4.23	0.55
ECM	4.32	0.66	4.38	0.58	4.19	0.61
Overall Teachers' Self-Efficacy	4.28	0.68	4.34	0.58	4.15	0.55

Table 12 presents One-Way ANOVA results for teacher self-efficacy perceived by teacher according to their position.

Table 12 One-Way ANOVA Results for the Differences in Teacher Self-Efficacy Perceived by Teacher according to Their Position   (N=301)

Variable		Sum of Square	df	Mean Square	F	P
ESE	Between Groups	2.473	2	1.236	3.544	.030
	Within Groups	103.954	298	.349		
	Total	106.427	300			

Note: *$p < 05$,

In Table 13, the results of Tukey HSD Multiple comparisons for teacher self-efficacy perceived by teacher according to their position were shown.

Table 13 The Results of Tukey HSD Multiple Comparisons for Teachers' Self-Efficacy Perceived by teacher according to Their Position (N=301)

Variable	(I)Position	(J)Position	Mean difference(I-J)	*P*
ESE	JT	ST	0.213	**.023**

Table 14 presents the mean values and standard deviations for teacher self-efficacy perceived by teacher according to their professional qualification.

Table 14 Mean Values and Standard Deviations for Teacher Self-Efficacy Perceived   by Teacher according to Their Professional Qualification

Teachers' Self-Efficacy	Certificate(N=135)		Diploma(N=80)		B.Ed (N=79)		M.Ed (N=7)	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
ESE	4.25	.55	4.13	.69	4.03	.59	4.04	.38
EIS	4.45	.59	4.30	.86	4.19	.65	4.29	.20
ECM	4.43	.49	4.27	.74	4.14	.65	4.34	.20
Overall	4.37	.56	4.23	.77	4.12	.63	4.22	.26

In Table 15, One-Way ANOVA results for the teacher self-efficacy according to professional qualification were shown.

Table 15 One-Way ANOVA Results for the Differences in Teacher Self-Efficacy according to Professional Qualification (N=301)

Variable		Sum of Square	*df*	Mean Square	*F*	*p*
ECM	Between Groups	4.125	3	1.375	3.787	.011
	Within Groups	107.822	297	.363		
	Total	111.946	300			

*p<.05,**p<01, ***p<.001, ns= no significant

In Table 16, the results of Tukey HSD Multiple comparisons for each dimension of teacher self-efficacy according to professional qualification were shown.

Table 16 The Results of Tukey HSD Multiple Comparisons for Teacher Self-Efficacy according to Professional Qualification (N=301)

Variable	(I)Position	(J)Position	Mean difference(I-J)	*p*
ECM	Certificate	B.Ed	0.282	**.006**

3. Findings of the Relationship between Professional Learning Communities and Teacher Self-Efficacy Perceived by Teachers at the Selected Basic Education High Schools in Sagaing Township

Table 13 showed that professional learning communities were statistically and weekly correlated to teacher self-efficacy.

Table 17 Correlation between Professional Learning Communities and Teacher Self-Efficacy

Variables	Professional Learning Communities	Teacher Self-Efficacy
Professional Learning Communities	1	.162[**]
Teacher Self-Efficacy	.162[**]	1

Note: [**]Correlation is significant at the 0.01 level (2-tailed)

4. Findings in Open-ended Questions

The open-ended question (1) is "State your perception about the factors needed for implementation of professional learning communities in your school." 22.59% of teachers (N=68) stated that discussing with together to solve the problems and difficulties in teaching-learning process. 15.95% of teachers (N=48) perceived that as implementation of professional learning communities, they had more enhancements in their teaching skills and more inspiration in their teaching environment. 12.62% of teachers (N=38) want the opportunities for collaborative processes to share responsibilities for school improvement.9.97% of teachers (N=30) state that peer coaching and mentoring to observe peers, share knowledge and offer encouragement. 9.63% of teachers (N=29) state that they have supportive conditions- structures in their schools. Finally, 3.65% of teachers (N=11) believed that the bonds of collegial relationships among teachers were tightly and caring relationships also existed between teachers and students to enhance teaching and learning.

The second open-ended question is "Please state your perception about the factors needed to enhance teacher self-efficacy in your instructional practices." 23.59% of teachers (N=71) stated that they had preferred to utilize alternative instructional strategies which have more attention from their students in their practice. 15.61% of teachers (N=47) perceived that as teachers were everlasting learners, they must learn continuously throughout their lives to enhance teacher self-efficacy. 8.64% of teachers (N=26) stated that they could control disruptive behavior in the classroom and motivate students to interest in school activities. 7.64% of teachers (N=23) stated that teachers could provide an alternative explanation when students confused, and could craft good questions for their students in their instructional practices. 6.64% of teachers (N=20) stated that they should use their classroom management strategies. 3.32% of teachers (N=10) stated that as their patience and engagement with students, teachers could get through to some of the most difficult students.

The third open-ended question is "Explain how being part of a professional learning community has changed your beliefs about teaching or classroom practices." 21.93% of teachers (N=66) reported that because of the implementation of professional learning communities in their schools, their instructional or classroom practices had improved a lot. 17.61% of teachers (N=53) perceived that as being part of professional learning communities, teachers could have opportunities for mentoring, collaboration, and application of new ideas and advice to solve the problems and difficulties; therefore they could focus on the school improvement. However 9.97% of teachers (N=30) stated that even though they implemented high extent of professional learning communities, supporting of appropriate instructional materials was not enough to use in most of the teaching and learning activities. Moreover, 13.29% of teachers (N=40) perceived that being eternal learners, their continuous learning must fulfill the effectiveness of instructional practices; by assessing themselves, teachers were trying to enhance their self-efficacy day after day; they must learn through coaching and mentoring from teachers who had high teaching experiences in their schools.

Conclusion

According to findings, the high extents of professional learning communities were implemented in the nine sample schools ($\bar{x}$=4.27). In this study, implementation regarding collective learning and application, and supportive conditions-relationships were the highest and

supportive conditions-structures were the lowest. The perception of primary teachers higher than those of junior and senior teachers in the professional learning communities implemented. Diploma holder teachers grouped by professional qualification had more implemented professional learning community than certificated, B.Ed and M.Ed holder teachers.

According to findings, the teachers in these schools had high level of self-efficacy ($\overline{x}$=4.03). By teachers' self-efficacy, junior teachers had higher than primary and senior teachers. Certificated teachers grouped by professional qualification had higher self-efficacy than diploma, B.Ed and M.Ed holder teachers.

According to findings, professional learning communities were statistically and weakly correlated to teacher self-efficacy (r = .162, $p < 0.01$).

The result of the study showed that the high extents of professional learning communities were implemented in the sample schools for research question (1). So teachers should share responsibility and accountability for student learning, must be actively involved in creating high expectations that save to increase student achievement, must also have opportunities for coaching and mentoring, and must learn continuously throughout their lives to enhance teacher self-efficacy. The school schedule should promote collective learning and shared practice. Communication systems should promote a flow of information among teachers.

For research question (2), research finding also indicated that the teachers from the sample schools had high level of teacher self-efficacy. So efficacious teachers can think and create the new ideas and more willing to use the new methods to better meet their students' need. They can provide alternative explanation and example and appropriate challenges for very capable students. They can motivate to their collages to build the professional learning community.

In research question (3), there were significant differences in professional learning communities and teacher self-efficacy according to teachers' position and professional qualification. Instructional leaders should be used the coaching, reflection, collegial investigation among teachers. All leader and teachers should be promoted the implementation of the PLCs and their self-efficacy. They must establish their school as a learning community for professional development.

The research findings showed that there was a significant relationship between professional learning communities and teacher self-efficacy. Similarly, Poter (2014) found that professional learning communities were correlated with teacher self-efficacy. Heaton (2013) suggested that professional learning community variables related significantly with levels of teacher self-efficacy. Because of the implementation of professional learning communities in their schools, their instructional or classroom practices had improved a lot. Teachers could have opportunities for mentoring, collaboration, and advice to solve the problems and difficulties; therefore they could focus on the school improvement. Being eternal learners, their continuous learning must fulfill the effectiveness of instructional practices; by assessing themselves, teachers were trying to enhance their self-efficacy day after day; they must learn through coaching and mentoring from teachers who had high teaching experiences in their schools.

Based on the findings of the study, it can be concluded that the more professional learning communities are implemented, the higher teacher self-efficacy will develop as well. Teachers could have peer coaching and mentoring to observe peers, share knowledge and offer encouragement so they could enhance their professional development. Thus, a school community

should be created to develop the teachers' judgment of their capabilities to foster desired outcomes for students. Educational administrators should support the needs of the teachers for improving the professional learning community.

Recommendation for Further Research

Based on the findings of this study, the following recommendations for further research should be implemented. Further study in the area of professional learning communities and teacher self-efficacy needs to extend the other schools in Myanmar. For deeper understanding, the researchers should conduct studies with a large sample size in these areas. The researchers definitely need more longitudinal studies on larger groups of teachers.

References

Bolam, R., McMahon, A., Stoll, l., Thomas, S., Wallace, M., & Hawkey, K. (2005). *Creating and sustaining effective professional learning communities.* Retrieved November 20, 2017 from http://www.educationscotland.gov.uk/Images/_Creating%20and%20Sustaining%20P LCs_cm4-610334.pdf

Camps, S. & Marques, P. (2011). Social Capital and Innovation: Exploring Intra- organisational Differences. *UAM-Accenture Working Papers.* Retrieved December 3, 2017 from http://www.uam/es/docencia/degin/catedra/documentos/7camps_marques.pdf

DuFour, R. (2004). *What is a Professional Learning Community?* Educational Leadership. Retrieved December 7, 2017 from http://www.washougal.k12.wa.us/_teach_learn/images/plc_articale.pdf

Heaton, M. (2013). An examination of the relationship between professional learning community variables and teacher self-efficacy. Retrieved May 21, 2018 from http://scholar.uwindsor.ca/cgi/viewcontent.cgi?articie=6037&context=etd

Hord, S. M.(1997). *School Professional Learning Communities: Communities Continuous inquiry an mprovement.* Austin, TX: Southwest Educational Development Laboratory. Retrieved May 21, 2018 from http://sdiplus.tie.wikispaces.net/_file/view/hordPLC%27sCommunities%20ofContinuousInquiryandImprovement.pdf/281357808/HrdLC%27sCommunities%20ofContinuousInquiryandImprovement

Liebman, H., Maldonado, N., Laccy, C. H. & Thompson, S. (2005). *An Investigation of leadership in a Professional Learning Community: A Case Study of a large, Suburban, Public Middle School.* Retrieved January 23, 2018 from http://schools.ednet.ns.ca/avrsb/070/tawebb/_HortonPD/An%20Investigation%_20of%20Leadership%20in%20a%20Professional%20Learning%20Community.pdf

Porter, T. (2014). Professional Learning Communities and Teacher Self-Efficacy. Retrieved May 6, 2018 from http://digitalcommons.georgefox.edu/cgi/viewcontent.cgi?article=1024&context=edd

Sai, X., & Siraj, S. (2015). Professional Learning Community in Education: Literature Review. *The Online Journal of Quality in Higher Education_April 2015, volume 2, Issue 2.* Retrieved January 6, 2018 from http://www.tojqih.net/journals/tojqih/articles/v02i02/v02i02-07.pdf

Shorter, C. D. (2012). The Relationship between Principal's Leadership Behaviors and the Development of Professional Learning Communities in Schools with Teacher Study Groups. Seton Hall University Dissertations and Theses (ETDs). 1786. Retrieved March 12, 2018 from http://scholarship.shu.edu/cgi/viewcontent.cgi?article=2785&context=dissertations

Stamper, J. C. (2015). A Study of Teacher and Principal Perceptions of Professional Learning Communities. Retrieved January 16, 2018 from http://uknowledge.uky.edu/cgi/viewcontent.cgi?referer= http://www.google.com.mm/& httpsredir=1&article=1011&context=edl_etds

Tschannen-Moran, M. & Woolfolk Hoy, A. (2001). Teacher-efficacy: Capturing an elusive construct. *Teaching and Teacher Education,* 17, 783-805. Retrieved January 23, 2018 from http://pdfs.semanticscholar.org/42e3/ af5061de43d25b85144964ab7a3e44a7549f.pdf

Turner, C. J. (2015). Impact of Professional Learning Community Design on Teacher Instruction. Theses and Dissertations.10 Retrieved March 2, 2018 from http://scholarworks.urak.edn/etd/10