Developing Performance Management Framework for Factors of Mentoring Strategies for Beginning Teachers

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Abstract

The main objective was to study performance management framework (PMF) for factors of mentoring strategies (MSs) for beginning teachers (BTs). Mail survey was conducted. All 251 mentors were selected by using census method. The instrument is developed on Kolb's experiential learning theory (1984), Bandura's self-efficacy theory (1998), MSs linked to a five-factor mentoring model (Hudson, 2004), strategies for mentoring pedagogical knowledge (Hudson, 2013), strategies for effective mentoring (University of North Texas, 2018), operational guidelines for teacher mentoring and school cluster support programme (Ministry of Education [MOE], 2017a), and teacher competency standards framework (MOE, 2017b). Principal component analysis (PCA), One-Way Analysis of Variance (ANOVA) and independent samples *t* test were used. The study revealed MSs and PMF. Mentors in upper region (UR) were the lowest perception because they had unbalanced workload and unrecognition of some officers. Females provided more for emotional support.

Keywords:

beginning teachers, mentoring strategies, and performance management framework.

Introduction

In order to provide every child with education by 2020, there were urgent and important requirements to fulfill 9.8 million extra primary teachers [PTs] in the world (The United Nations Educational, Scientific and Cultural Organization, Institute for Statistics, 2016). Developing countries have great challenges to recruit competent PTs. Also in Myanmar, a mentoring programme (MP) has been implemented with the cooperation of MOE with World Bank-led partners since 2016-2017 Academic Year. Since a new basic education curricula must be redesigned and launched in Myanmar a few years ago, *quality in-service training and mentoring for all teachers* must be provided in order to ensure the smooth curricula implementation (Aung San Suu Kyi, 2016). According to the recruitment policy (there are at least five teachers in every elementary school), PTs were mostly appointed for the remote, rural schools. In observing data at 40 townships, 40% of PTs are under three years of service. About 70% are daily wage teachers (DWTs) who have no teacher training, are assigned to their posts in the remote, rural villages. Moreover, BTs need mentoring (Polikoff et al., 2015). Will (2017, as cited in Tomlinson, 2019) stated that the quality of mentoring should be paid attention in most public school districts and a defined set of MSs should be used by mentors to effectively facilitate the professional growth of BTs. Facilitating professional growth, analyzing effective teaching strategies, understanding adult learning, and implementing effective MSs are involved in mentoring (Sunde & Ulvik, 2014). Mentor-mentee relationship is the heart of a MP (University of Stirling, n.d.). Implementing a quality MP leads to develop a BT into high-quality professional (Saban, 2003 as cited in Palmer, 2010).

Teacher training in Myanmar provides philosophy of teaching, educational psychology, and

the knowledge and practices of teaching methods. Education Colleges prepared for 50% of PTs in fulfilling annual PTs needs (Thein Naing, 2010). After recruiting teachers for required positions through alternative routes (AR) in United States of America and Australia, they were provided on-the-job training. According to Zeichner and Paige (2007, as cited in Lowery, et al., n.d., p.3), AR is defined as "anything other than a four or five-year undergraduate programme in a college or university". BTs who enter through AR programme are required professional development (PD) activities. In Myanmar, DWTs, Primary Assistant Teacher Training Correspondence (PATC) Teachers, Pre-service Primary Teacher Training (PPTT) Teachers, Diploma in Teacher Education Certificate (DTEC) Teachers can be teachers through AR programmes except Diploma in Teacher Education (DTEd). Such teachers are provided for different kinds of PD programmes. Among programmes, mentoring is either a basic PD programme. According to World Bank's international development association project paper (2018, p.49), "many of these teachers tend to have lower degrees in education and are in particular need of pedagogical support. Therefore, a programme is designed to fulfill the unique needs of this new wave of teachers". The teacher mentoring and associated cluster support activities provide new teachers (whose services are no more than four years) with in-service PD opportunities, discussing issues, and sharing ideas and information. MSs refer to the behaviour, approach, and style that mentors exhibit to support BTs smoothly through their first years (van Ginkel, et al., 2016). In Hudson's study (2012), 10 PTs mentioned that they required more support in the school context, networking, managing people, creating work-life balances, school culture and infrastructure including teaching practices. According to Palmer (2010), BTs from elementary, middle and high schools need more support in curriculum, discipline and parental communication. Then, time spent with the mentors and the variation of attitudes of the mentor and the school administration are important. If future researchers desire to establish a set of strategies for effective mentoring, the above findings should be considered. A driving force of any practice is a well-defined strategy together with a lot of functions and skillful mentors to perform their roles effectively. If a mentor is skillful in using PMF, he or she can guide energetically their mentees until they get their personal and professional well-being so that competent PTs will be bloomed.

Purposes of the Research

The main objective is to study PMF for factors of MSs for BTs.

The specific objectives are:

1. to explore the degree of importance in MSs as perceived by mentors
2. to investigate the variations of mentors' degree of importance of MSs according to their personal factors; and
3. to develop PMF for factors of MSs for BTs

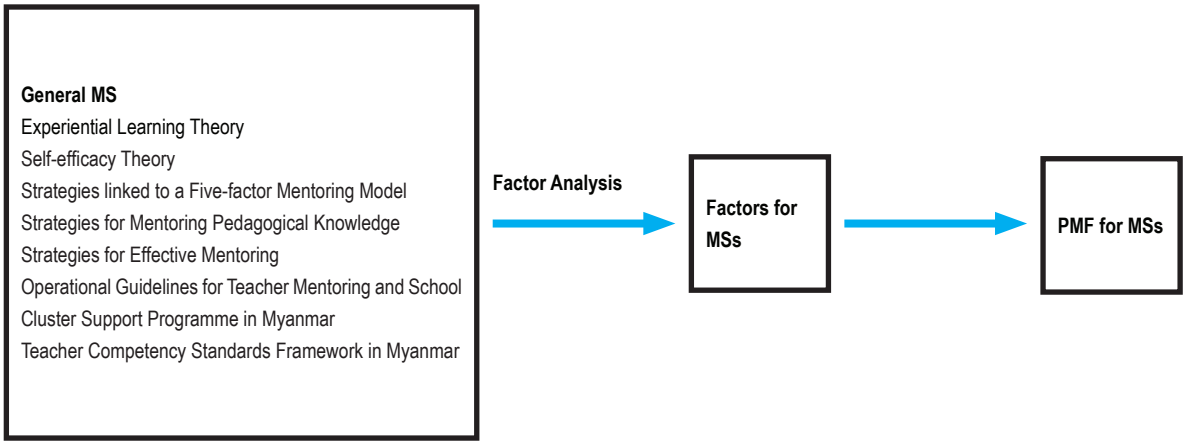

Figure 1. Conceptual framework of MSs for BTs.

Mentors need to meet with their mentees in a specific time. Their role is to provide possible solutions if the mentee has difficulties (Hudson, 2004; MOE, 2017a). Kolb's (1984, p. 38) experiential learning theory asserted that, "Learning is the process whereby knowledge is created through the transformation of experience." Depending on the Kolb's learning cycle, Honey and Mumford (1986a & 1986b, as cited in Rosewell, 2005) classified the four basic learning styles. Mentors should have background knowledge about the types of learners to decide a mentee is an activist, a reflector, a theorist, a pragmatist or not, to create learning opportunities. Hudson (2004) stated that mentors need to discuss the integration of skills, abilities and interests into teaching with their mentees. They need to speak favourably and enthusiastically about teaching and learning as well as to outline the positive aspects of teaching. They need to ask mentees questions about how to review the previous lessons (MOE, 2017a; University of North Texas, 2018). To encourage self-reflection practice and being non-judgemental, they need to listen to mentees' self-evaluation (Hudson, 2004; MOE, 2017a). As a primary teacher, and a colleague, they need to show an interest in the mentee (Hudson, 2004). For instance, thinking how to teach specially after studying the aims of primary level syllabus, and asking how the mentee has fulfilled and outlined impacts on learning outcomes by participating in PD activities, and experiences from school cluster meetings (MOE, 2017a). According to Hartman (2010), they guide their mentees that making error analysis should be performed.

Mentors need to direct mentees how to implement the syllabus and focus on areas within it (MOE, 2017a). For particular students with special needs and other students with talents, they need to tell teaching methods based on students' abilities (Hudson, 2004; MOE, 2017b). They need to show them how to search for validated content knowledge (Hudson, 2004). They should outline syllabus requirements for allocated durations (Hudson, 2013; MOE, 2017b), and explain impacts of extra-curricular activities in cooperation with Parent Teacher Association (MOE, 2017a). According to self-efficacy theory, mastery experience was recognized as the most impact for adults (Bandura, 1998). Mentors should assist mentees to select the most preferred teaching strategies by discussing student contexts and needs, and allowing mentees opportunities to test out a range of teaching strategies (Hudson, 2013; MOE, 2017a). Mentors should talk about possible stressful situations, and explain to the mentee the ways of handling issues. They should encourage their mentees to develop problem solving skills (MOE, 2017a). They should explain to the mentee about types of questions and discuss the ways of preparing key questions in consideration with the students. They should explain about assessment related to ways of progressing learning outcomes. They should tell about rationale for assessment and allow mentees to learn assessment techniques from other colleagues. They should guide how to record students' achievement according to each lesson, and report to parents or guardians (MOE, 2017b). For PD, they should discuss ideas with other mentors (MOE, 2017a). According to Hudson (2004) and University of North Texas (2018), mentors need to ask the mentee to observe the ways of interacting with students (how to recognize and respect students' views and opinions). Mentors should discuss the students' prior knowledge (MOE, 2017a). Vygotsky (1980) believed that learning occurred in zone of proximal development since it was a challenging activity. With the guidance and modeling of a mentor, mentees could learn and practise until they performed their functions independently in situated learning. According to the theory, mentors ought to demonstrate questioning skills throughout the lesson. They need to demonstrate a lesson by using a hands-on approach. They should model and discuss classroom management strategies. They should model how to organize students into groups (Bandura, 1998).

They should talk positively about nature of teaching subjects (Hudson, 2004; MOE, 2017b). They should make references to the syllabus when discussing teaching problems. They should fulfill requirements of mentees and discuss the practices with each other (MOE, 2017b). Enhancing mentees' physical well-being and reducing their stresses were involved in physiological arousal since these factors modified beliefs of self-efficacy (Wood & Bandura, 1989). The credibility, trustworthiness, and expertise of a mentor were the basic concepts in the social persuasion. Mentors should watch the mentee's teaching to provide specific feedback. They should review the mentee's lesson plans before teaching and provide constructive comments (MOE, 2017b). According to goal-setting theory (Locke & Latham, 2002), setting positive and effective goals can increase attention to the current task, the

effort, the persistence, motivation and performance by encouraging the development of specific task strategies. If people failed, they could make more effort or use another way. If they succeeded, self-confidence, analytic thinking, and performance would be improved (Bandura, 1993). They should ask the mentees for their thoughts on how the lesson proceeds (MOE, 2017b; University of North Texas, 2018) and the last lesson taught could be improved (Hudson, 2004; MOE,2017b). They should provide oral and written evaluations (Hudson, 2004; MOE,2017b). They need to inform expectations for the planning, teaching and assessment of lessons clearly. Moreover, they should know that teachers make mistakes when trialing a new lesson (Hudson, 2004).

Methodology

This study used the mixed method research design. The number of the mentors was 251. Constructs (modelling, cognitive coaching, design conversation, feedback, wellbeing conversation, classroom observation, and reflective dialogue) were measured.

After reviewing related theories and literature thoroughly, the researchers developed a set of questionnaire. It included 50 items and demographic data (gender, age, academic qualification, specialization and service). Mentors were asked to indicate the degree of importance in MSs by using a 4-point Likert Scale - (1) Not important; (2) Slightly important; (3) Moderately important; and (4) Very important.

For content validity, invaluable advice was appealed to 13 experts, teacher educators and four experts, retired teacher educators from Department of Educational Theory and Management, Yangon University of Education. The wordings of some items were revised. Then, a pilot study was conducted with 34 mentors. All items are valid and content validity index (CVI) measures the proportion of agreement (CVI= .976). Moreover, Cronbach's alpha was .96.

In the main study, mail survey was employed by five parts: (1) a pre-notification, (2) survey package questionnaire with cover letter and other instructional materials; and follow-up correspondence in the form of (3) a post-card, (4) replacement questionnaire if necessary, and (5) a final contact (Leite, n.d). In a pre-notification, mentors were requested and informed by telephone to receive the mail questionnaire within the next few days. In the package, cover letter, sets of questionnaire and mode of returning were included. Since the researcher had already known that mail survey had a lot of missing values, at the third week after the survey package had been sent, the researchers requested mentors in order to answer completely and return the questionnaires. Finally, the researchers made a final contact and collected the questionnaires.

The percent of missing values was 3.98%. Enders (2003, as cited in Dong & Peng, 2013) stated that a missing rate of 15% to 20% was common in educational and psychological studies. Mean imputation method was used to replace 3.98% of missing places since it is acceptable to replace up to 15 % of data. For data analysis, PCA, One-Way ANOVA and independent samples *t* test were used. For qualitative study, purposive sampling was employed to select 18 mentors to scrutinize MSs through their words.

Results and Discussion

After entering the data into SPSS software, the data were checked using Exploratory Data Analysis to know whether data were outliers, non-normal distribution, problems with coding and missing values or not, and whether assumptions of the statistics that wanted to analyze were met or not. Inspection of the correlation matrix revealed the coefficients of .30 and above (Tabachnick & Fidell, 2007). Kaiser-Meyer-Olkin measure of sampling adequacy was .91, greater than the recommended value of .60, and Bartlett's Test of Sphericity was statistically significant at .001 level ($p < .000$). Table 1 describes MSs for showing eigenvalues of rotation sums of squared loadings.

Eigenvalues greater than one accounted for retaining factors. After rotation, regarding variance, the first factor accounts for 36.70%, the second factor accounts for 4.02%, the third factor accounts for 3.33%, the fourth factor accounts for 3.25%, the fifth factor accounts for 3.04%, the sixth factor accounts for 2.76%, and the seventh factor accounts for 2.66% respectively. The total variance was 55.76 %.

Cattell's scree test (1966, as cited in Ledesma, et al. 2015) was used for plotting each eigenvalue and inspecting the plot to find a point (changing direction and becoming horizontal). By testing the scree plot and

Table 1
MSs for Showing Eigenvalues of Rotation Sums of Squared Loadings

Rotation Sums of Squared Loadings		
MSs	**Eigenvalues**	**% of Variance**
Factor 1	18.35	36.70%
Factor 2	2.01	4.02%
Factor 3	1.67	3.33%
Factor 4	1.62	3.25%
Factor 5	1.52	3.04%
Factor 6	1.38	2.76%
Factor 7	1.33	2.66%

Note. MSs= mentoring strategies; %= Percentage.

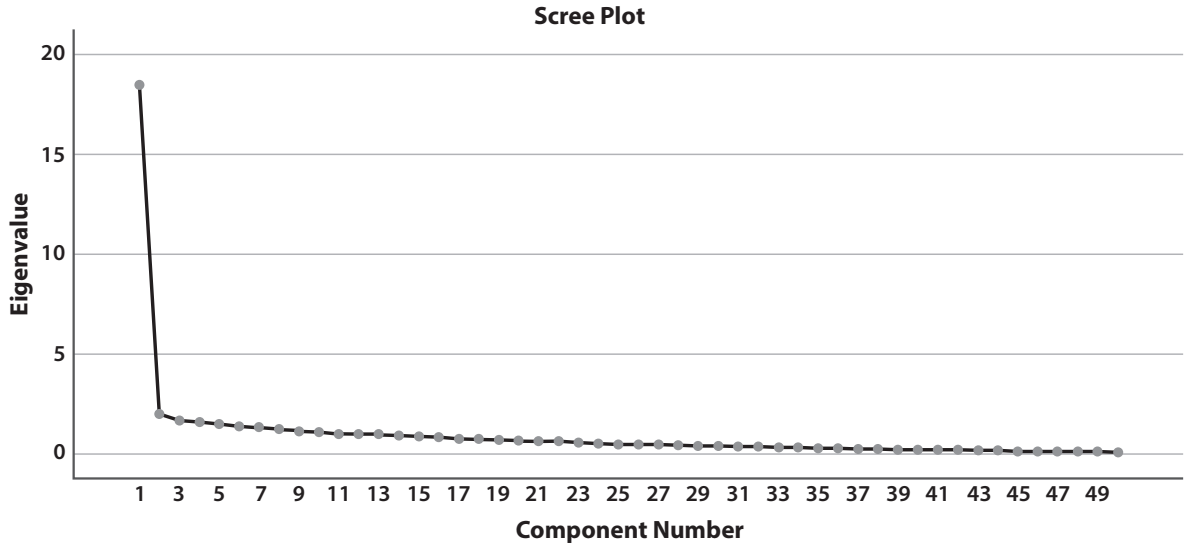

Figure 2. Scree Plot showing the Factors for MSs

eigenvalues, only seven components (43 items) were retained as shown in Figure 2.

As shown in Table 2 (see Appendix 1), the variables that demonstrate high loadings for the components in interpreting the rotated solution were obtained as their associated numbers of items (13 items, seven items, five items, six items, four items, four items and four items). Although three items per scale should be viewed as an absolute minimum, especially in social sciences, test and attitude scale developers normally desired that their scales contain many more than just three items to measure a given component (Spector, 1992). The values of commonalities are rather moderate in this study. More common magnitudes in social sciences are low to moderate communalities of .40 to .70 (Costello & Osborne, 2015). The names of the constructs were validated by the well experienced teacher educators in order to capture the concept of all items in a construct.

Mentors assumed the modelling as the most important MS because they were instructed to apply a phrase (I do, We do, and You do) in training (MOE, 2017a). Modelling was an effective MS (Ackley & Gall, 1992; Esther, 2016; Hudson, 2013; Hudson & Hudson, 2014; Tomlinson, 2019). However, wellbeing conversation, classroom observation and reflective dialogue were the least important.

In wellbeing conversation, mentors did not have enough time to solve problems of mentees despite it took this conversation much time to build a trusting relationship. Especially, some mentees had difficulties in communicating with parents of some children. It was similar with Palmer's (2010) research findings.

For classroom observation, some mentors in UR said that there was only one mentee in every one-third of the schools. Some mentees were transferred to another positions or places due to transportation difficulty and their safety. Constraint of time was a barrier. The majority of issues comes from a lack of time in their work (Ehrich et al., 2004; as cited in Craig, 2018).

According to Myanmar culture, some mentors were unwilling to reflect their some mentees because they had knew about a fear of being assessed. To prevent or alleviate mentees' fear of evaluation in a reflective dialogue, mentors need to avoid "judgementoring" by Hobson and Malderez (2013; as cited in Tonna et al., 2017). To engage in honest reflective dialogue, a safe space is essential for mentees (Dobie et al., 2010; as cited in Tonna et al., 2017). The safe space is rare for most primary schools of remote villages especially hilly regions in Myanmar.

Comparison of MSs by Regions

Variations of mentors' degree of importance of MSs were investigated in terms of central region (CR), lower region (LR) and UR. Table 3 shows mean values and standard deviations showing mentors' degree of importance of MSs grouped by regions.

According to Table 3, grand mean (GM) values were 3.70 (UR), 3.85 (CR) and 3.77 (LR). It can be said that mentors in all regions perceived all MSs as very important strategies.

Table 4 describes One-Way ANOVA results showing MSs of degree of importance of mentors grouped by regions.

According to the ANOVA results in Table 4, there were significant differences in modelling (df=2, F=5.943, p<.01), cognitive coaching (df=2, F=4.890, p<.01), design conversation (df=2, F=2.004, p<.01), feedback (df=2, F=3.907, p<.01), and classroom observation (df=2, F=5.534, p<.05).

Table 5 indicates Games-Howell post hoc test results showing multiple comparisons for MSs. As test of homogeneity of variance was significant, Games-Howell post hoc test was applied in order to know specific pairs of means among regions.

Table 3
Mean Values and Standard Deviations Showing Mentors' Degree of Importance of MSs Grouped by Regions

MSs	M(SD)		
	UR	CR	LR
Modelling	3.67(.40)	3.87(.21)	3.72(.37)
Cognitive Coaching	3.73(.37)	3.89(.20)	3.80(.29)
Design Conversation	3.68(.41)	3.87(.22)	3.80(.32)
Feedback	3.74(.34)	3.90(.19)	3.80(.33)
Wellbeing Conversation	3.64(.44)	3.77(.30)	3.69(.40)
Classroom Observation	3.75(.34)	3.89(.22)	3.81(.30)
Reflective Dialogue	3.66(.40)	3.78(.32)	3.77(.31)
GM	3.70(.32)	3.85(.19)	3.77(.28)

Note. N=251. MSs= mentoring strategies. UR=upper region; CR=central region; LR=lower region. GM=Grand Mean.

Mean and standard deviation are presented in each vertical column.

Scoring direction was 1.00-1.75= not important at all; 1.76-2.50= of little importance; 2.51-3.25= of average importance and 3.26-4.00= very important.

Table 4
One-Way ANOVA Results Showing Mentors' Degree of Importance of MSs Grouped by Regions

Dependent Variables		SS	df	MS	F	p
Modelling	Between Groups	1.347	2	.674	5.943	.004**
	Within Groups	29.489	248	.119		
	Total	30.837	250			
Cognitive Coaching	Between Groups	.833	2	.417	4.890	.009**
	Within Groups	21.668	248	.087		
	Total	22.501	250			
Design Conversation	Between Groups	1.255	2	.628	2.004	.003**
	Within Groups	26.188	248	.106		
	Total	27.443	250			
Feedback	Between Groups	.884	2	.442	3.907	.008**
	Within Groups	22.412	248	.090		
	Total	23.296	250			
Wellbeing Conversation	Between Groups	.610	2	.305	2.909	.137
	Within Groups	37.768	248	.152		
	Total	38.378	250			
Classroom Observation	Between Groups	.662	2	.331	5.534	.021*
	Within Groups	21.004	248	.085		
	Total	21.665	250			
Reflective Dialogue	Between Groups	.670	2	.335	5.943	.056
	Within Groups	28.555	248	.115		
	Total	29.225	250			
Overall	Between Groups	.818	2	.409	4.890	.004**
	Within Groups	18.319	248	.074		
	Total	19.136	250			

Note. N=251. MS= Mean Square; SS=Sum of Squares.
** P<.05., ** P<.01.*

The data presented in the Table 5 showed that mentors in CR significantly differed from both of those in UR (p<.01, d=.62) and LR in modelling (p<.01, d=.47). Mentors in both UR and LR significantly differed from those in the CR in cognitive coaching (p<.01, d=.53; p<.05, d=.34). Mentors in CR significantly differed from both of those in the UR (p<.01, d=.57) and LR (p<.05, d=.35) in feedback. Mentors in CR differed from those in UR in design conversation (p<.01, d=.57) and classroom observation (p<.05, d=.48). Some principals and officers in UR did not support well the mentoring functions. According to Williams (2000, as cited in Inzer & Crawford, 2005), if every level of an organization supported mentoring functions, particularly senior management, that function would be succeeded.

Table 5
Games-Howell Test Results Showing Multiple Comparisons for MSs

MSs	I	J	I-J	*p*
Modelling	CR	UR	.19*	.002**
		LR	.14*	.003**
Cognitive Coaching	CR	UR	.16*	.007**
		LR	.09*	.048*
Design Conversation	CR	UR	.19*	.003**
Feedback	CR	UR	.16*	.002**
		LR	.10*	.022*
Classroom Observation	CR	UR	.14*	.013*
Overall	CR	UR	.16*	.002**

*Note. N=251. MSs=mentoring strategies; I=J=region; CR=central region; UR=upper region; LR= lower region. I-J=mean difference. *P<.05. ** P<.01.*

Table 6
Independent Samples T test Results Showing Mean Comparison of MSs Grouped by Gender

MSs	Gender	N	M(SD)	*t*	*df*	*p*
Modelling	Male	162	3.72(.35)	-1.750	249	.081
	Female	89	3.80(.35)			
Cognitive Coaching	Male	162	3.77(.31)	-2.519	205.882	.013*
	Female	89	3.87(.27)			
Design Conversation	Male	162	3.76(.35)	-1.648	203.731	.101
	Female	89	3.83(.30)			
Feedback	Male	162	3.77(.34)	-3.791	247.983	.000***
	Female	89	3.90(.20)			
Wellbeing Conversation	Male	162	3.66(.39)	-1.794	249	.074
	Female	89	3.75(.39)			
Classroom Observation	Male	162	3.78(.31)	-2.328	249	.022*
	Female	89	3.87(.26)			
Reflective Dialogue	Male	162	3.71(.36)	-2.092	207.688	.038*
	Female	89	3.80(.30)			
Overall	Male	162	3.74(.29)	-2.647	201.281	.009**
	Female	89	3.83(.25)			

*Note. N=251. MSs=mentoring strategies. Mean and standard deviation for gender are presented in the vertical column. Parameter estimates in modeling, design conversation and wellbeing that share subscripts do not differ significantly. *P<.05. ** P<.01. ***P<.001.*

Comparison of MSs by Gender

Table 6 describes Independent Samples *t* Test results showing mean comparison of MSs grouped by gender. To test the difference between males and females on normal dependent variables, the Independent Samples t Test was used.

According to Table 6, males were significantly different from females (*t*=-2.519, *df*=249, *p*=.013) in

Table 7
Independent Samples t Test Results Showing Mean Comparison of MSs Grouped by Mentoring Service

MSs	Mentoring Service	N	M(SD)	*t*	*df*	*p*
Modelling	One Year Mentoring Service	135	3.75(.37)	-.016	249	.987
	Two Years Mentoring Service	116	3.75(.34)			
Cognitive Coaching	One Year Mentoring Service	135	3.82(.29)	.664	249	.508
	Two Years Mentoring Service	116	3.79(.31)			
Design Conversation	One Year Mentoring Service	135	3.79(.31)	.598	249	.550
	Two Years Mentoring Service	116	3.77(.36)			
Feedback	One Year Mentoring Service	135	3.83(.29)	.742	249	.459
	Two Years Mentoring Service	116	3.80(.33)			
Wellbeing Conversation	One Year Mentoring Service	135	3.70 (.38)	.456	249	.649
	Two Years Mentoring Service	116	3.68(.41)			
Classroom Observation	One Year Mentoring Service	135	3.84(.28)	1.238	249	.217
	Two Years Mentoring Service	116	3.79(.31)			
Reflective Dialogue	One Year Mentoring Service	135	3.77(.32)	1.502	227.201	.135
	Two Years Mentoring Service	116	3.71(.37)			
Overall	One Year Mentoring Service	135	3.78(.27)	.867	249	.387
	Two Years Mentoring Service	116	3.75(.29)	-.016		

Note. N=251. MSs= mentoring strategies. Mean and standard deviation for gender are presented in the vertical column. Parameter estimates in all rows that share subscripts do not differ significantly.

cognitive coaching; (*t*=-3.791, *df*=247.983, *p*=.000) in feedback; (*t*=-2.328, *df*=249, *p*=.022) in classroom observation, and (*t*=-2.092, *df*=207.688, *p*=.038) in reflective dialogue. It is suggested that females provided more for emotional support verbally than males since there was a trusting relationship between them and their mentees. Moreover, unlike males, they regarded themselves as the recognized PTs ago and had strong desire to be mentors.

Some males were overloaded at the offices, where the positions of Assistant Township Education Officers were in vacant. When females experienced transportation difficulty in the rainy season, males made sacrifices. Those findings were consistent with the suggestions of Sosik and Godshalk (2000, as cited in Kitchel, et al., 2008, p.105) because males were typically "more task-oriented, results-driven, competitive, rational, strategic and unemotional"; whereas, females tended to be more "relationship-oriented, nurturing, cooperative, intuitive, empathic, and emotional expressive".

Table 7 depicts Independent Samples *t* Test results showing mean comparison of MSs grouped by mentors' mentoring service. To test the difference between mentors who had one year mentoring service and those who had two years mentoring service on normal dependent variables, the Independent Samples *t* Test was used.

According to its GM, the mentors who had one year mentoring service had slightly more perception than those who had two years mentoring service. The results were due to the monitoring and evaluation of the first year MP, and giving feedback and reviewing the experiences provided by organizations of MP (MOE, 2017a).

Developing PMF for Factors of MSs for BTs

One of the research objectives was to develop PMF for factors of MSs for BTs.

As shown in Figure 3, PMF needs to be applied in managing mentors' performances. The framework

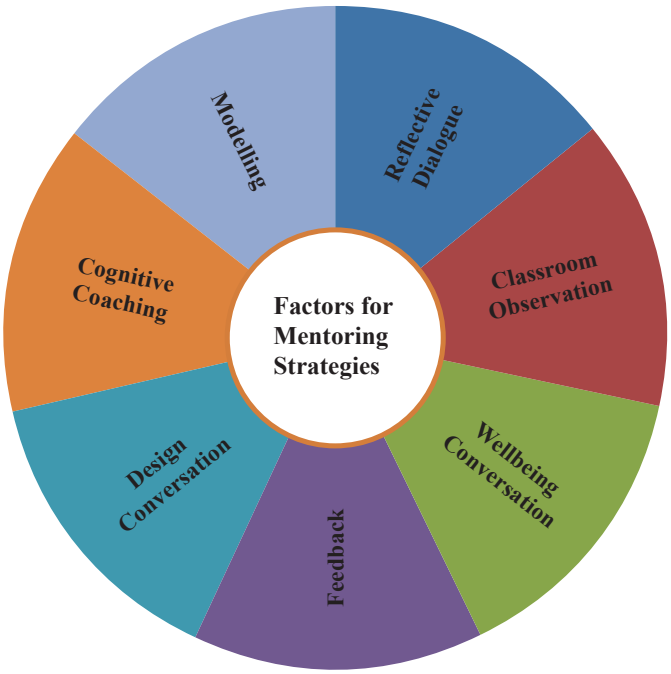

Figure 3. Developing PMF for factors of MSs for BTs

will also certainly facilitate to officers who perform mentoring functions. Seven factors in PMF should be used together regardless of its particular effectiveness.

Conclusion and Recommendation

The main objective was to study PMF for factors of MSs for BTs. Although cognitive coaching was not mentioned in earlier literature, the mentors was aware of its importance as the present situation is a curriculum change period, and then, they performed the functions of an instructional coach in addition to attending new curricula trainings. When they worked with teachers to change and adapt instructional techniques to meet the needs of their students, they used cognitive coaching. Dialogue and discussion that provides teachers opportunities to self-reflect and change their practice was created by cognitive coaching (Reed, 2006). In assessment, despite mentees ask their colleagues for advice (MOE, 2017b), in practice, they asked for principals. Moreover, mentors need to meet with their mentees in a specific time (Hudson, 2004; MOE, 2017a) in literature. However, they had not enough time. Therefore, time allocation for mentors should be considered.

Mentors assumed that modelling was the most important MS, but reflective dialogue was the least important MS. According to self-efficacy theory, modelling was the most influential for whom less experienced individuals in that observers had learnt a lot and models demonstrated a lot for them (Bandura, 1998).

In comparison of MSs with the regions, mentors in UR had lower values than other regions, generally there was a significant difference between UR and CR in five constructs. A few mentors in UR were overloaded with 40 mentees due to having transportation difficulty in hilly regions and unrecognition of a few principals and Township Education Officers. The workloads of the mentors and cooperation with senior managers should be reviewed. In feedback, a few mentors in CR told to their mentees about current performances with portfolios and how they can improve in according with goals of MP. It was in consistent with goal-setting theory (Dubrin, 2012, as cited in Lunenburg, 2011) since feedback must be provided on goal attainment of mentoring.

There were significant differences between males and females. It is suggested that females provided more for emotional support by verbal

persuasion than males. According to self-efficacy theory, if verbal persuasion boosted self-efficacy and people tried hard to succeed, it could promote the development of skills (Bandura, 1998). MSs are known approaches of performance management which are also called frameworks. Therefore, the researchers developed PMF.

The study was based on only mentors who have mentoring training at 70 townships. Further researchers need to conduct a study of assessing mentors' performances by using PMF in 150 townships. Then, another weakness was that the researchers did not develop construct validity due to limited number of mentors. However, the researchers conducted the research with all mentors in the whole country (N=251) because the number of sample size would be acceptable 5 times of the number of items (n=50) at least, to obtain reliable results. Moreover, although adult learning should be included in mentoring (Sunde & Ulvik, 2014), the researchers presented the results of essential characteristics of a mentor by examining adult learning theory in Universities Research Journal (Myanmar), 2020, Vol. 13.

As a future research direction, more research should be conducted, with the participation of all the stakeholders (principals, mentoring officers and mentees) since that study was limited to the perspectives of mentors only.

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Appendix 1

Table 2
Factor Loadings and Communalities Based on Principal Component Analysis with Varimax Rotation for MSs

Variables for MSs	Item No.	Components							Communalities
		1	2	3	4	5	6	7	
Modelling	Q39	.68							.73
	Q33	.66							.67
	Q37	.65							.71
	Q23	.61							.68
	Q38	.60							.71
	Q36	.59							.69
	Q41	.57							.67
	Q35	.55							.61
	Q34	.54							.63
	Q31	.54							.67
	Q40	.53							.58
	Q30	.46							.67
	Q24	.44							.56
Cognitive Coaching	Q44		.62						.57
	Q15		.60						.63
	Q18		.54						.68
	Q13		.54						.68
	Q46		.49						.62
	Q14		.48						.60
	Q17		.36						.47
Design Conversation	Q25			.70					.72
	Q26			.69					.70
	Q45			.58					.62
	Q16			.54					.69
	Q10			.41					.63
Feedback	Q47				.73				.78
	Q48				.62				.58

(Continued)

Table 2

Factor Loadings and Communalities Based on Principal Component Analysis with Varimax Rotation for MSs

(Continued)

Variables for MSs	Item No.	Components							Communalities
		1	2	3	4	5	6	7	
	Q50				.55				.61
	Q49				.45				.62
	Q28				.44				.67
	Q29				.42				.60
Wellbeing Conversation	Q19					.73			.70
	Q21					.53			.63
	Q32					.43			.64
	Q20					.43			.70
Classroom Observation	Q5						.55		.61
	Q7						.55		.67
	Q8						.51		.60
	Q43						.47		.55
Reflective Dialogue	Q6							.63	.62
	Q3							.54	.54
	Q42							.49	.63
	Q11							.38	.64
Eigenvalues		18.35	2.01	1.67	1.62	1.52	1.38	1.33	
% of Variance		36.70	4.02	3.33	3.25	3.04	2.76	2.66	

Note. N=251. Loading < .30 are suppressed.