SELF-INITIATED PROFESSIONAL DEVELOPMENT OF TEACHER EDUCATORS

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Abstract

This study focuses on self-initiated professional development of teacher educators from two universities. The purpose of this study was to investigate the perceptions of self-initiated professional development of teacher educators from two universities located in Sagaing Region. A survey instrument, *Self-initiated Professional Development Questionnaire (SPDQ)* developed by the researchers was used to measure self-initiated professional development of teacher educators. It included44 items using five point Likert scale and consisted of four dimensions: ways of learning, opportunities to learn, attitude changes, and challenges. The reliability of *Self-initiated Professional Development Questionnaire*, with Cronbach's alpha coefficient, was 0.864. One hundred and ninety three teacher educators from two universities located in Sagaing Township were selected by using purposive sampling method. Descriptive statistics such as means and standard deviations, independent samples *t*-test, one-way ANOVA and Post Hoc multiple comparison tests (Tukey HSD and Games-Howell) were used to analyze data. The results of the study indicated that collaborative learning was highly practiced by teacher educators than other three dimensions, and extrinsic support of the institution was higher than intrinsic support. In addition, teaching practice and pedagogical knowledge of teacher educators were at the high level of changes after self-initiated professional development activities. Moreover, teacher educators showed that they faced more challenges in the dimension of "autonomy" than in others. In a way, this means that teacher educators often use self-initiated professional development activities to develop their institutions which is essential for reforming the education system and encounter some shortcomings that needed to be fulfilled in their daily life.

Keywords: Professional development of teachers, Self-initiated professional development of teacher, Teacher attitude

Introduction

Living in an environment, where knowledge, technology, concepts, philosophies, almost everything is rapidly changing, teaching becomes an extremely complex and demanding occupation. Keeping pace with the continuous changes and developments is considered to be a necessity for the quality of teaching and education. Therefore, ongoing professional development becomes a vital component in teachers' lives (Karaaslan, 2003). Professional development is an ongoing learning opportunity and is a necessary component of how schools learn and use information. The continuing task for educators is to use data to design and implement instruction that encourages growth from the professional development experiences of teachers. Professional development efforts should be available to all members of the school system (Johnson, 2015). Interestingly, as highlighted by Bredeson (2002), there are a plethora of terms such as in-service, staff development, continuing education, training, and self-improvement that are used interchangeably with the term professional development with little regard for any conceptual and practical differences.

Despite the apparent lack of consensus, most of the literature base reviews described teachers' professional development as an intentional, ongoing and systematic process (Bolam, 2002; Gabriel, Day & Allington, 2011; Guskey, 2000, as cited in Aminudin, 2012) of formal and informal education, training, learning and support activities taking place in either external or work-based settings (Bolam, 2002; Hawley & Valli, 1999, as cited in Aminudin, 2012) and proactively engaged in by qualified, professional teachers, school principals and other school leaders, alone or with others, which have direct or indirect benefit to the individual teacher, the school and also the nation (Bolam, 2002; Day,

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1999, as cited in Aminudin, 2012). It can be made available through external expertise in the form of courses, workshops or formal qualification programmes, through collaboration between schools or teachers across schools (e.g. observational visits to other schools or teacher networks) or within the schools in which teachers work (OECD, 2009).

Purpose of the Study

The general purpose of the study is to investigate the self-initiated professional development of teacher educators in two universities of Sagaing. The specific purposes are:

- to find out the ways of learning practiced by teacher educators,
- to study the perceptions of teacher educators on opportunities to learn supplied by their institution,
- to investigate the changes of teacher educators' attitude after making self-initiated professional development activities,
- to examine the challenges encountered by teacher educators for change and growth, and
- to explore if there are significant differences in perceptions of teacher educators on self-initiated professional development according to their demographic data (gender, age and position).

Research Questions

1. What are the ways of learning practiced by teacher educators?
2. What are the perceptions of teacher educators on opportunities to learn supplied by their institution?
3. What are the changes of teacher educators' attitude after making self-initiated professional development activities?
4. What are the challenges encountered by teacher educators for change and growth?
5. Are there any significant differences in perceptions of teacher educators on self-initiated professional development according to their demographic data (gender, age and position)?

Definitions of Key Terms

The terms used throughout the current study are defined for clarifying and understanding in the following.

- **Professional development of teachers**: A process of continual intellectual, experiential, and attitudinal growth of teachers (Bailey, Kurtis & Nunan, 1998, as cited in Karaaslan, 2003).
- **Self-initiated professional development of teachers**: Teachers' own development of intellect, experience and attitudes, which is initiated by themselves (Karaaslan, 2003).

In this study, self-initiated professional development of teacher educators are measured by four dimensions such as *ways of learning* practiced by teacher educators, *opportunities to learn* supplied by their institution, *attitude changes* of teacher educators after making self-initiated professional development activities, and the *challenges* encountered by teacher educators for change and growth.

- **Teacher attitude**: Teachers' feeling, manner, or behavior toward a situation or a cause (Karaaslan, 2003).

Scope of the Study

The scope of this study is limited to two universities located in Sagaing Township. The findings of the study may not be generalized to any other university than universities located in Sagaing Township.

Conceptual Frameworks

The framework is based on Burrell's and Morgan's (1979, as cited in Dempster, 2001) paradigms of social theory. In applying socio-cultural theory and Vygotsky's thoughts and ideas, Warford (2011, as cited in Postholm, 2012) claims that teachers' learning is situated. The term "professional development" is defined by the National Staff Development Council (NSDC) to mean "a comprehensive, sustained, and intensive approach to improving teachers' and principals' effectiveness in raising student achievement, and may be supported by activities such as courses, workshops, institutes, networks, and conferences" (Wei, Darling- Hammond, Andree, Richardson &Orphanos, 2009, as cited in Yarema, 2015).

Roosevelt (2008, as cited in Shabani, Khatip & Ebadi, 2010) holds that the main goal of education from Vygotskian perspective is to keep learners in their own zone of proximal development (ZPDs) as often as possible by giving them interesting and culturally meaningful learning and problem-solving tasks that are slightly more difficult than what they do alone, such that they will need to work together either with another, more competent peer or with a teacher or adult to finish the task. The idea is that after completing the task jointly, the learner will likely be able to complete the same task individually next time, and through that process, the learner's ZPD for that particular task will have been raised. This process is then repeated at the higher level of task difficulty that the learner's new ZPD requires. In order for life-long learning to occur, adults need to be taught how to learn (Caruth, 2014, as cited in Reichert, 2016). Peterson and Ray (2013, as cited in Reichert, 2016) concluded adults need to learn how to be life-long learners due to the anticipated longer life spans for humans.

Traditional models of professional development experienced in American schools are of short duration and do not provide the time, regular follow-up, and reinforcement opportunities essential to successful professional development. The teachers surveyed by NSCD reported low ratings of the usefulness of most professional development activities, as well as a desire for further professional development in the content they taught, classroom management, teaching special needs students, and other topics. These responses are indicators of the insufficiency of the professional development infrastructure in place in most states and communities (Wei et al., 2009, as cited in Yarema, 2015).

Review of Related Literature

Teachers are important component of education in the realization of educational goals. They are also the most important person in teaching who manages learning experiences and environments. In teaching, teachers use themselves and their knowledge, skills, attitude, and practice and students learning achievement highly depends on teachers' readiness in establishing the activity (Namunga & Otunga, 2012, as cited in Deni Putri Adnyani, 2015). Teachers play an important role in teaching and learning process in order to improve student outcomes and their effects towards students' learning appear to be sustained and accumulative (Darling-Hammond, Wei & Johnson, 2012, as cited in Deni Putri Adnyani, 2015).

Teachers first of all need to observe their performance to reflect upon. Diary writing, peer observation, action research, video or audio taping are some of the techniques that can be used to self-reflect on teaching performance. When a teacher observes his/ her own teaching and reflects upon it, he/ she means to evaluate his/ her performance and notice the strong and weak points in his/ her teaching. This self-evaluation is the only true evaluation (Karaaslan, 2003).

Nikolic (2002) argues that self-evaluation is a powerful means of achieving permanent positive change than any other method of professional growth or supervision because teachers can accomplish most by working on their own. They self-evaluate voluntarily, and this factor ensures they are motivated to experiment and willing to change. Self-evaluation can be achieved by combining self-

reflection with some techniques like using checklists, rating scales, questionnaires, peer observations, audio or video recordings and keeping diaries.

Research Methodology

Research Method

Descriptive research method was used in this study.

Participants

Although there were 233 teacher educators in two universities, only 193 (25 males and 169 females) teacher educators participated as the sample in the study.

Instruments

Only one instrument, *Self-initiated Professional Development Questionnaire (SPDQ)* developed by the researchers, was used to study the self-initiated professional development of teacher educators. It included 44 items and four dimensions. To make the instrument more accurate and to avoid response bias, the items of the questionnaire were mixed. Their level of agreement was on the five-point Likert scale ranging from 1 never to always 5 for the first two dimensions and from 1 strongly disagree to 5 strongly agree for the second two dimensions.

Data Collection Procedure

For the content validity, the questionnaire were evaluated and revised by the experts who were well experienced and mastery in this field. According to their review, comments and suggestions, the instrument was modified again. To test the reliability of the questionnaire items, pilot study was conducted in one Education College. After requesting permission from the responsible persons, questionnaires for teacher educators were distributed to teacher educators in two universities on the 5th and 6th December, 2018 and collected them on 11th and 12th December, 2018. Data obtained from the study were scored.

Research Findings

Table 1 Mean Values and Standard Deviations of Ways of Learning Practiced by Teacher Educators

Ways of Learning	Mean	SD	Remark
Inquiry-based Learning	3.60	.629	Moderate Level
Peer Observation	3.60	.749	Moderate Level
Collaborative Learning	3.90	.708	High Level
In-service Training and Practiced-based Learning	3.30	.869	Moderate Level

Note: 1.00-2.33 =Low Level 2.34-3.67=Moderate Level 3.68-5.00=High Level

According to Table 1, it was found that the levels of "inquiry-based learning", "peer observation", and "in-service training and practiced-based learning" practiced by teacher educators were moderate levels while the level "collaborative learning" perceived by teacher educators was high level.

Table 2 Mean Values and Standard Deviations of Perceptions of Teacher Educators on Opportunities to Learn Supplied by their Institution

Opportunities to Learn	Mean	SD	Remark
Extrinsic Support	3.80	.893	High Level
Intrinsic Support	3.30	.684	Moderate Level

Note: 1.00-2.33 =Low Level 2.34-3.67=Moderate Level 3.68-5.00=High Level

Table 2 shows mean values of perceptions of teacher educators on opportunities to learn supplied by their institution. When studying the mean values of teacher educators' perceptions on "extrinsic" and "intrinsic" support, high level was found in "extrinsic" support but moderate level was found in "intrinsic" support.

According to Table 3, the mean values of teacher educators' perceptions on both "teaching practice" and "pedagogical knowledge" indicated that they had high levels of changes in "teaching practice" and "pedagogical knowledge" after doing self-initiated professional development activities.

Table 3 Mean Values and Standard Deviations of Changes and Hinders of Teacher Educators' Attitude after Making Self-initiated Professional Development Activities

Attitude Changes	Mean	SD	Remark
Teaching Practice	4.10	.374	High Level
Pedagogical Knowledge	4.00	.389	High Level

Note: 1.00-2.33 =Low Level 2.34-3.67=Moderate Level 3.68-5.00=High Level

According to Table 4, moderate levels of challenges and hinders encountered by teacher educators were found in "subject matter", "technology and finance" and "workload" but high level of challenges encountered by teacher educators was found in "autonomy" for change and growth.

Table 4 Mean Values and Standard Deviation of Challenges and Hinders Encountered by Teacher Educators for Change and Growth

Dimension	Mean	SD	Remark
Subject Matter	2.70	.717	Moderate Level
Autonomy	3.80	.749	High Level
Technology and Finance	2.90	.778	Moderate Level
Workload	3.10	.819	Moderate Level

Note: 1.00-2.33 =Low Level 2.34-3.67=Moderate Level 3.68-5.00=High Level

In order to explore if there were significant differences in perceptions of teacher educators on "way of learning" according to their gender, independent samples *t*-test was calculated. "Collaborative learning" was at high level based on the perceptions of male and female teacher educators. However, there was no significant difference inperceptions of teacher educators on "way of learning" according to their gender (See: Table 5).

Table 5 Independent Samples *t*-Test Results for Ways of Learning Perceived by Teacher Educators according to their Gender

Dimension	Gender	N	Mean	*t*	MD	*df*	*p*
Inquiry-based Learning	Male	25	3.59	-.042	-.01	191	.967
	Female	168	3.60				
Peer Observation	Male	25	3.50	-.926	-.15	191	.355
	Female	168	3.65				
Collaborative Learning	Male	25	3.78	-.841	-.13	191	.401
	Female	168	3.91				
In-service Training and Practice-based Learning	Male	25	3.48	1.026	.19	191	.306
	Female	168	3.29				

Note: $p<0.05$

Table 6 Independent Samples *t*-Test Results for Opportunities to Learn Perceived by Teacher Educators according to Gender

Dimensions	Gender	N	Mean	*t*	MD	*df*	*p*
Extrinsic Support	Male	25	3.72	-.708	-.110	191	.483
	Female	168	3.83				
Intrinsic Support	Male	25	3.34	.042	.006	191	.967
	Female	168	3.33				

Note: *p<0.05*

In order to find out whether there were significant differences in the perceptions of teacher educators on "opportunities to learn" according to their gender or not, independent samples *t*-test was calculated. According to Table 6, there was no significant difference in all dimensions of teacher educators' perceptions on "opportunities to learn". The result showed that female teacher educators received more opportunities of "extrinsic support" than male teacher educators whereas male teacher educators got more opportunities of "intrinsic support".

Again, in order to investigate if there were significant differences in the perceptions of teacher educators on "attitude changes" according to gender or not, independent samples *t*-test was used.

Table 7 Independent Samples *t*-Test Results for Attitude Changes Perceived by Teacher Educators according to Gender

Dimensions	Gender	N	Mean	*t*	MD	*df*	*p*
Teaching Practices	Male	25	4.21	1.476	.118	191	.142
	Female	168	4.09				
Pedagogical Knowledge	Male	25	4.15	1.677	.139	191	.095
	Female	168	4.01				

Note: *p<0.05*

According to Table 7, there was no significant difference in all dimensions of teacher educators' perceptions on "attitude changes" between male and female. Moreover, it can be assumed that male teacher educators highly had higher levels of changes in both dimensions of "attitude changes" than female teacher educators.

Again, in order to investigate if there were significant differences in the perceptions of teacher educators on "challenges and hinders" according to gender or not, independent samples *t*-test was used. As shown in Table 8, there was no significant difference in all dimensions of

teacher educators' perceptions on "challenges and hinders" according to their gender. The mean value indicated that male teacher educators faced more challenges in all dimensions of "challenges and hinders" than female teacher educators.

Table 8 Independent Samples *t*-Test Results for Challenges and Hinders Perceived by Teacher Educators according to Gender

Dimensions	Gender	N	Mean	*t*	MD	*df*	*p*
Subject Matter	Male	25	2.81	.525	0.08	191	.600
	Female	168	2.73				
Autonomy	Male	25	3.89	.460	0.07	191	.646
	Female	168	3.82				
Finance and Technology	Male	25	2.95	.191	0.03	191	.848
	Female	168	2.92				
Workload	Male	25	3.22	.489	0.08	191	.625
	Female	168	3.13				

Note: $p<0.05$

Table 9 Mean Values and Standard Deviation of Ways of Learning Practiced by Teacher Educators according to their Age

Age	Ways of Learning							
	Inquiry-based Learning		Peer Observation		Collaborative Learning		In-service Training and Practiced-based Learning	
	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)
<25	3.45	0.77	3.64	0.67	3.82	0.87	3.36	0.75
25-29	3.75	0.60	3.70	0.77	3.93	0.76	3.24	0.79
30-34	3.73	0.48	3.50	0.79	3.94	0.65	3.42	0.92
34-39	3.54	0.53	3.43	0.80	3.82	0.80	3.07	1.12
40-44	3.51	0.63	3.60	0.69	3.77	0.55	3.29	0.68
45-49	3.58	0.64	3.57	0.73	3.88	0.67	3.50	0.79
50-54	3.27	0.71	3.52	0.71	3.73	0.69	3.12	1.07
>55	3.68	0.65	3.97	0.77	4.21	0.71	3.60	0.92
Total	**3.59**	**0.63**	**3.63**	**0.75**	**4.21**	**0.71**	**3.31**	**0.87**

According to Table 9, it can be assumed that teacher educators between the age of 25 and 29 had the highest levels in "inquiry-based learning" and "peer observation" than the other age groups. Again, teacher educators above the age of 55 possessed the highest levels in "collaborative leaning" and "in-service training and practiced-based learning" than the other age groups. On the other hand, the performance of teacher educators between the age of 34 and 39 in "peer observation" and "in-service training and practiced-based learning" were the least while the performance of teacher educators between the age of 50 and 54 in "inquiry-based learning" and "collaborative learning" were the least.

In order to find out whether there were significant differences in teacher educators' perceptions of "Ways of Learning" based on their age or not, one-way ANOVA test was calculated. However, there was no significant difference in perceptions of teacher educators on all dimensions of "Ways of Learning".

Table 10 Mean Values and Standard Deviation Teacher Educators' Perceptions on Opportunities to Learn Supplied by their Institution according to their Age

Age	Opportunities to Learn			
	Extrinsic Support		Intrinsic Support	
	Mean	SD	Mean	SD
<25	3.59	1.30	3.34	0.90
25-29	3.99	0.84	3.29	0.68
30-34	3.79	0.91	3.28	0.50
35-39	3.39	1.04	3.06	0.75
40-44	3.63	0.92	3.16	0.68
45-49	3.86	0.90	3.64	0.79
50-54	3.75	0.68	3.37	0.55
>55	4.08	0.79	3.55	0.68
Total	**3.81**	**0.89**	**3.33**	**0.68**

As shown in Table 10, it can be assumed that teacher educators above the age of 55 had more opportunities to learn with respect to "extrinsic support" than the other age group. Moreover, teacher educators between the age 45 and 49 received more opportunities concerning with "intrinsic support" than the other age groups. On the other hand, among the age groups, the opportunities regarding "extrinsic support" and "intrinsic support" acquired by teacher educators between the age of 35 and 39 were the least.

To find out whether there were significant differences in teacher educators' perceptions of "Opportunities to Learn" based on their age or not, one-way ANOVA test was calculated. However, there was no significant difference in perceptions of teacher educators on all dimensions of "Opportunities to Learn" according to their age.

Table 11 Mean Values and Standard Deviation of Attitude Changes Practiced by Teacher Educators according to their Age

Age	Attitude Changes			
	Teaching Practice		Pedagogical Knowledge	
	Mean	SD	Mean	SD
<25	4.06	0.08	4.10	0.22
25-29	4.10	0.40	4.00	0.43
30-34	4.00	0.38	4.00	0.27
35-39	4.01	0.30	4.00	0.39
40-44	4.04	0.32	4.00	0.28
45-49	4.23	0.40	4.07	0.46
50-54	4.16	0.37	4.09	0.42
>55	4.24	0.42	4.23	0.43
Total	**4.11**	**0.37**	**4.03**	**0.39**

According to Table 11, the result indicated that teacher educators above the age of 55 had the higher level of changes in both dimensions of "teaching practices" and "pedagogical knowledge" than the other age groups. On the other hand, among the age groups, the level of changes in "teaching practices" by teacher educators between the age of 30 and 34 was the least while teacher educators in the age groups of 25-29, 30-34 and 35-39 had the lowest level of changes in "pedagogical knowledge".

To find out whether there were significant differences in teacher educators' perceptions of "Attitudes Changes" based on their age or not, one-way ANOVA test was calculated. However, there was no significant difference in perceptions of teacher educators on all dimensions of "Attitudes Changes" according to their age.

Table 12 Mean Values and Standard Deviation of Challenges and Hinders Perceived by Teacher Educators according to their Age

Age	Challenges and Hinders							
	Subject Matter		Autonomy		Technology and Finance		Workload	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD)
<25	2.82	0.82	3.76	0.76	2.91	0.94	3.36	0.40
25-29	2.93	0.69	3.89	0.72	3.07	0.74	3.26	0.76
30-34	2.70	0.51	4.03	0.64	2.86	0.57	3.23	0.68
35-39	3.07	0.69	3.7	0.74	2.86	0.61	3.46	0.66
40-44	2.84	0.66	3.63	0.76	3.17	0.61	3.27	0.71
45-49	2.63	0.62	3.84	0.78	2.86	0.85	2.98	0.81
50-54	2.44	0.69	3.68	0.93	2.79	0.83	2.75	0.94
>55	2.34	0.95	3.96	0.61	2.49	1.08	2.87	1.03
Total	**2.74**	**0.72**	**3.83**	**0.75**	**2.92**	**0.78**	**3.15**	**0.82**

According to Table 12, the result indicated that teacher educators between the age of 35 and 39 encountered more challenges in "subject matter" and "work load" than the other age groups. Again, teacher educators between the age of 30 and 34 faced more challenges in "autonomy" than the other age group and the challenges in "technology and finance" encountered by teacher educators between the age of 40 and 44 were the most. On the other hand, teacher educators above the age of 55 faced less challenges in "subject matter" and "technological finance" than the other age groups. Moreover, the challenges in "autonomy" encountered by teacher educators between the age of 40 and 44 were the least while those in "workload" got by teacher educators between the age of 50 and 54 were the least (See: Table 12).

To find out whether there were significant differences in teacher educators' perceptions of "Challenges and Hinders" based on their age or not, one-way ANOVA test was calculated (See: Table 13).

Table 13 ANOVA Results of Challenges and Hinders Perceived by Teacher Educators according to their Age

Dimensions		Sum of Squares	*df*	Mean Square	*F*	*p*
Subject Matter	Between Groups	9.211	7	1.316	2.719	**.010**
	Within Groups	89.519	185	.484		
	Total	**98.729**	**192**			

Note: *p<0.05*

Although no significant differences were found in three dimensions, *Autonomy, Finance and Technology, and workload,* it can be seen that there is a significant difference in *Subject Matter* according to the level of age. In order to find out which particular groups had the significant differences in *Subject Matter,* Post Hoc Multiple Comparisons Test (Tukey) was conducted (See: Table 13).

Table 14 Results of Multiple Comparisons for "Challenges and Hinders" Performed by Teacher Educators According to their Age

Dimensions of Challenges and Hinders	Age (I)	Age (J)	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Subject Matter	25-29	>55	.584*	.186	**.040**	.0149	1.1527

Note: *p<0.05*

In order to find out which particular groups had the significant differences in *Subject Matter*, Post Hoc Multiple Comparisons Test (Tukey) was conducted. As shown in Table 14, there were significant differences between the age group of 25-29 and the age group of over 55 at the $p<0.05$ level. This means that 25 to 29 years old teachers face challenges and hinders of *Subject Matter* than over 55 years old teachers.

According to Table 15, the result showed that professors more practiced "inquiry-based learning", "peer observation", "collaborative learning" and "in-service training and practiced-based learning" than the others. However, "inquiry-based learning", "peer observation" and "collaborative learning" were less practiced by lecturers than the other groups whereas the performance of "in-service training and practiced-based learning" by assistant lecturers are the least (See: Table 15).

Table 15 Mean Values and Standard Deviation of Ways of Learning Practiced by Teacher Educators according to their Position

Position	Ways of Learning							
	Inquiry-based Learning		Peer Observation		Collaborative Learning		In-service Training and Practiced-based Learning	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
T/D	3.64	0.60	3.62	0.79	3.83	0.77	3.19	0.81
AL	3.60	0.61	3.60	0.69	3.90	0.69	3.14	0.88
L	3.38	0.65	3.48	0.72	3.80	0.62	3.40	0.76
AP	3.97	0.40	3.88	0.71	4.04	0.66	3.92	0.70
P	4.00	0.80	4.57	0.61	4.64	0.63	4.36	1.11
Total	3.60	0.63	3.63	0.75	3.90	0.71	3.31	0.87

Note: T/D = Tutor/ Demonstrator AL= Assistant Lecturer L= Lecturer
AP = Associate Professor P = Professor

In order to find out whether there were significant differences in the teacher educators' perceptions of "Ways of Learning" according to their position, or not, one-way ANOVA test was calculated.

Table 16 ANOVA Results of Ways of Learning Perceived by Teacher Educators according to their Position

Dimensions of Ways of Learning		Sum of Squares	*df*	Mean Square	*F*	*p*
Inquiry-based Learning	Between Groups	5.290	4	1.322	3.510	**.009**
	Within Groups	70.828	188	.377		
	Total	76.118	192			
Peer Observation	Between Groups	8.203	4	2.051	3.872	**.005**
	Within Groups	99.559	188	.530		
	Total	107.762	192			
Collaborative Learning	Between Groups	4.873	4	1.218	2.507	**.044**
	Within Groups	91.342	188	.486		
	Total	96.215	192			
In-service Training and Practice-based Learning	Between Groups	15.685	4	3.921	5.688	**.000**
	Within Groups	129.600	188	.689		
	Total	145.285	192			

Note: $p<0.05$

According to Table 16, there was a significant difference in perceptions of teacher educators on all dimensions of "Inquiry-based Learning, Peer Observation, Collaborative Learning and In-service Training and Practice-based Learning" according to their position.

Post Hoc Comparisons Test (Tukey) was calculated to determine the significant source of the differences. According to Table 17, there were significant differences in "inquiry-based learning" between "lecturer" and "associate professor" at $p<0.05$ level. In peer observation, the significant differences between "professor" and "tutor/demonstrator", "professor" and "assistant lecturer" and, "professor" and lecturer" were found. Moreover, while having the significant differences between "professor" and "tutor/demonstrator" and between "professor" and "lecturer" in "collaborative learning", there were also significant differences between "associate professor" and "tutor/demonstrator and assistant lecturer" in "in-service training and practice-based learning".

Table 17 Results of Multiple Comparisons for "Ways of Learning" Performed by Teachers Educators According to their Position

Dimensions of Ways of Learning	Position (I)	Position (J)	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Inquiry-based Learning	L	AP	-.590*	.145	**.003**	-1.0117	-.1693
Peer Observation	P	T/D	.953*	.252	**.029**	.0986	1.8070
		AL	.974*	.245	**.026**	.1217	1.8271
		L	1.093	.253	**.013**	.2378	1.9476
Collaborative Learning	P	T/D	.812*	.279	**.032**	.0448	1.5799
		L	.845*	.282	**.026**	.0671	1.6228
In-service Training and Practice-based Learning	AP	T/D	.737*	.222	**.025**	.0722	1.4011
		AL	.781*	.222	**.017**	.1158	1.4468

Note: T/D = Tutor/ Demonstrator AL= Assistant Lecturer L= Lecturer
AP = Associate Professor P = Professor

As shown in Table 18, the result indicated that professors received more opportunities concerning with "extrinsic support" and "intrinsic support" than the others. The opportunities with regard to "extrinsic support" obtained by lecturers are the least while assistant lectures had less opportunities regarding "intrinsic support" are the least.

Table 18 Mean Values and Standard Deviation Teacher Educators' Perceptions on Opportunities to Learn Supplied by their Institution according to their Position

Position	Opportunities to Learn			
	Extrinsic Support		Intrinsic Support	
	Mean	SD	Mean	SD
T/D	3.82	1.02	3.17	0.71
AL	3.77	0.85	3.32	0.64
L	3.76	0.84	3.38	0.69
AP	4.04	0.69	3.65	0.57
P	4.21	0.86	3.82	0.82
Total	3.81	0.89	3.33	0.68

Note: T/D = Tutor/ Demonstrator AL= Assistant Lecturer L= Lecturer
AP = Associate Professor P = Professor

In order to find out whether there were significant differences in the teacher educators' perceptions of "Opportunities to Learn" according to their position, or not, one-way ANOVA test was calculated. According to Table 19, there was a significant difference in perceptions of teacher educators on "intrinsic support" according to their position.

Table 19 ANOVA Results of Opportunities to Learn Perceived by Teacher Educators according to their Position

Dimensions		Sum of Squares	*df*	Mean Square	*F*	*p*
Intrinsic Support	Between Groups	4.581	4	1.145	2.526	**.042**
	Within Groups	85.257	188	.453		
	Total	89.838	192			

Note: *p<0.05*

Post Hoc Comparisons Test (Tukey) was calculated to determine the significant source of the differences. According to Table 20, there were significant differences in "intrinsic support" between "Professor" and "Tutor/ Demonstrator" at *p<0.05* level.

Table 20 Results of Multiple Comparisons for "Opportunities to Learn" Performed by Teachers Educators According to their Position

Dimension	Position (I)	Position (J)	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Intrinsic Support	P	T/D	.939*	.325	**.035**	.0437	1.8352

Note: T/D = Tutor/ Demonstrator P= Professor

As shown in Table 21, after self-initiated professional development activities, professors had higher level of changes in both dimensions of "teaching practices" and "pedagogical knowledge" than the others. However, the level of changes in "teaching practices" and "pedagogical knowledge" by tutors or demonstrators were the least comparing to other groups.

Table 21 Mean Values and Standard Deviation of Attitude Changes Practiced by Teacher Educators according to their Position

Position	Attitude Changes			
	Teaching Practice		Pedagogical Knowledge	
	Mean	SD	Mean	SD
T/D	4.07	0.36	4.00	0.37
AL	4.04	0.36	4.00	0.38
L	4.19	0.35	4.08	0.36
AP	4.23	0.41	4.15	0.40
P	4.28	0.62	4.38	0.60
Total	4.11	0.37	4.03	0.39

Note: T/D = Tutor/ Demonstrator AL= Assistant Lecturer L= Lecturer
AP = Associate Professor P = Professor

In order to find out whether there were significant differences in the teacher educators' perceptions of "Attitude Changes" according to their position, or not, one-way ANOVA test was calculated.

Table 22 ANOVA Results of Attitude Changes Perceived by Teacher Educators according to their Position

Dimensions		Sum of Squares	*df*	Mean Square	*F*	*p*
Pedagogical Knowledge	Between Groups	1.517	4	.379	2.580	**.039**
	Within Groups	27.647	188	.147		
	Total	29.164	192			

Note: $p<0.05$

There were significant differences in the dimensions of "pedagogical knowledge" according to teacher educators' position.

Again, Post Hoc Comparisons Test (Tukey) was calculated to determine the significant source of the differences. However, there was no significant source of the difference in "pedagogical knowledge" according to position.

Table 23 Mean Values and Standard Deviation of Challenges and Hinders Practiced by Teacher Educators according to their Position

Position	Challenges and Hinders							
	Subject Matter		Autonomy		Technology and Finance		Workload	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
T/D	2.90	0.74	3.81	0.71	3.03	0.80	3.27	0.80
AL	2.79	0.61	3.72	0.78	2.90	0.60	3.12	0.69
L	2.61	0.74	3.76	0.76	2.90	0.85	3.13	0.92
AP	2.33	0.62	4.33	0.43	2.79	0.89	2.92	0.84
P	2.57	1.16	4.52	0.50	2.62	1.32	2.86	1.34
Total	2.74	0.72	3.83	0.75	2.92	0.78	3.15	0.82

Note: T/D = Tutor/ Demonstrator AL= Assistant Lecturer L= Lecturer AP = Associate Professor P = Professor

According to Table 23, the result indicated that tutor and demonstrator encountered more challenges in "subject matter", "technology and finance" and "work load" than the other groups while professors faced more challenges in "autonomy" than the other groups. On the other hand, the challenges in "subject matter" and "technological finance" faced by professors were the least. Moreover, the challenges in "subject matter" encountered by associate professors were the least, whereas those in "autonomy" got by assistant lecturers were the least.

Table 24 ANOVA Results of Challenges and Hinders Perceived by Teacher Educators according to their Position

Dimensions		**Sum of Squares**	***df***	**Mean Square**	***F***	***p***
Autonomy	Between Groups	7.707	4	1.927	3.627	**.007**
	Within Groups	99.873	188	.531		
	Total	107.580	192			

Note: $p<0.05$

In order to find out whether there were significant differences in the teacher educators' perceptions of "Challenges and Hinders" according to their position, or not, one-way ANOVA test was calculated. The findings in Table 24 showed that there were significant differences in "autonomy" according to teacher educators' position. However, there was no significant difference in other dimensions of "Challenges and Hinders". Post Hoc Comparisons (Tukey) was calculated to determine the significant source of differences in this dimension.

Table 25 Results of Multiple Comparisons for "Challenges and Hinders" Performed by Teacher Educators According to their Position

Dimensions of Challenges and Hinders	**Position (I)**	**Position (J)**	**Mean Difference (I-J)**	**Std. Error**	**Sig.**	**95% Confidence Interval**	
						Lower Bound	**Upper Bound**
Autonomy	AL	AP	-.612*	.221	**.048**	-1.2204	-.0035
		P	-.802*	.289	**.048**	-1.5999	-.0050

Note: AL= Assistant Lecturer, AP = Associate Professor, P = Professor

As shown in Table 25, there were significant differences in *Autonomy* between Lecturers and Associate Professors, and Professors at $p<0.05$ level (see: Table 25). In other words, teacher educators who are in the position of Associate Professor and Professor had higher Autonomy than Lecturers.

Discussion and Conclusion

The purpose of this study is to investigate the teacher educators' perceptions of self-initiated professional development. Five research questions were used in this study.

Research Question No (1) investigated teachers' perception levels of "Ways of Learning" for self-initiated professional development at two universities in Sagaing Township. Based on the research findings, teachers' perception levels were found at moderate level in three dimensions of "Inquiry-based learning, Peer Observation, and In-service Training and Practice-based Learning" although it was found that the level of "Collaborative Learning" was high. This means that teacher educators mostly practiced "Collaborative Learning" than other dimensions.

Again, **Research Question No (2)** investigated the levels of teacher educators' attitudes of supply for opportunities to learn in both universities. In this study, teachers' sense opportunities to learn consisted of two subscales, extrinsic support and intrinsic support. The research findings indicated that

extrinsic support had higher mean value for supplying opportunities to learn than intrinsic support. This means that teacher educators got higher level of extrinsic support than intrinsic support.

Research Question No (3) explored the "Teaching Practices and Pedagogical Knowledge" that changes after doing self-initiated professional development activities. According to teacher educators' perceptions, there were high level mean values in all subscales, teaching practice and pedagogical knowledge. This means that the teacher educators' attitude and character improved more than before after doing self-initiated professional development activities.

Next, **Research Question No (4)** investigated the challenges teacher educators encountered in doing self-initiated professional development activities. In this situation, the teacher educators' perception levels in three subscales, subject matter, workload, and technology and finance, were at moderate level although the fourth subscale, autonomy, was at the high level. This means that teacher educators did not have complete rights of freedom in trying to improve their profession.

Finally, **Research Question (5)** investigated significant differences in perceptions of teacher educators on self-initiated professional development according to their demographic data (gender, age and position). The findings pointed out that there was no significant differences in perceptions of teacher educators on "ways of learning", "opportunities to learn", "attitude changes" and "challenges and hinders" according to their gender. Next, according to teacher educators' age, there was no significant difference in perceptions of teacher educators on "ways of learning", "opportunities to learn" and "attitude changes". However, there was a significant difference in teacher educators' perceptions on one dimensions of "challenges and hinders", "subject matter". Moreover, according to teacher educators' position, there were significant differences in perceptions of teacher educators on all dimensions of "ways of learning", one dimension of "opportunities to learn", "intrinsic support", one dimension of "attitude changes", "pedagogical knowledge" and one dimension of "challenges and hinders", "autonomy".

In conclusion, teachers' sense of self-initiated professional development activities has such an important effect on the quality of teaching. Thus, schools should create positive school atmosphere to have the opportunity to enhance teachers' profession.

Recommendation for Further Study

The findings of this study have led the researcher to make the following recommendation for further research. Like this research, more research concerned with self-initiated professional development should be further conducted in other universities in Myanmar. Then, a large sample size should be considered so that many different results or reasons could produce to improve self-initiated professional development. Since the researcher has limited time and insufficient resources**,** only the teacher educators' attitudes could be studied upon self-initiated professional development. Then, a qualitative study would help to bring a deeper understanding of the thoughts, feelings and attitudes of participants about their perceptions of self-initiated professional development activities.

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