

AN EXPLORATION OF INFLUENCING FACTORS ON TEACHER TRAINING PROGRAMMES IN EDUCATION COLLEGES

San San Myint¹

Abstract

The main purpose of this study is to study the exploration of influencing factors on teacher training programmes in education colleges. The three factors such as social factors, technical factors and managerial factors are examined to know what extent they effect, which are the highest and lowest influence and the interrelationships among them for the improvement of quality transformation in education colleges. A quantitative research method and descriptive research design were used in this study. This study was conducted in fourteen education colleges. The samples education colleges for this study were randomly selected. The (561) teacher educators were administered to obtain the required data. A Questionnaire was used as instruments. To measure the reliability of the instrument, a pilot test was conducted to (66) teacher educators from two education colleges. The internal consistency (Cronbach's Alpha) of Questionnaire was (.844). The data were analyzed by using the descriptive analysis techniques and Pearson product moment correlation. The research findings revealed that the influencing level of social factors had the (71%), the technical factors had the (69%) and the managerial factors had the (72%). It showed that these factors were moderately influenced on the pre-service teacher training programmes. Among the three factors, the social factors have greater average means (82.27) than the technical factors (72.40) and the managerial factors (72.46). The relationship between social factors and technical factors was $r(12)=.435$, $p < .01$, between social factors and managerial factors was $r(12)=.454$, $p < .01$ and between the technical factors and managerial factors was $r(12)=.734$, $p < .01$. They were significant positively relationships.

Keyword: Quality Assurance, Quality of teacher Education, Teacher Training

Introduction

Education shifts from product-oriented to process-oriented trend by using the energy from environment as innovation according to the view point of system approach. The education system must produce the educated persons who have sound body and healthy mind with qualitative attitudes of education. Mukhopadhyay (2001) classified the outcome of the education in four levels such as informed, cultured, emancipated and self-actualized. Education development should provide individual's values, knowledge, skills and competencies for living and participation in quality society. So, the aim of education for sustainable development is to empower people to participate in shaping a future. Everywhere in the world, reforms and innovation are jointly presented among the most urgent preoccupations of educational system circle (Porter & Goble, 1977). Therefore, the current formal educational trend requires for this purpose and calls for the innovation.

According to Bishop (1986), the innovation will be essential to bring about qualitative change in education. These changes are needed to increase efficiency and improve the quality and equity of learning opportunities. Efficiency means the balance between input resources invested and the output in term of student's performance in quality and equity. All systems cannot exist in vacuum; respond to their environment and have vulnerable to change (Bertalanffy, 1972). These changes are needed to increase efficiency and improve the quality and equity of learning opportunities. Matei and Iwinska (2016) pointed out that quality in higher

¹ Principal, Taungoo Education College

education and quality assurance are important for Myanmar during the current period of transformations in the country. Especially education colleges need to innovate not only in product but also in process in cyclic quality improvement.

National Education Strategic Plan (NESP) is a comprehensive, widely-owner and evidence-based roadmap intended to reform the entire education sector over the next five years for the period of 2016-2021. MOE has identified nine transformational shifts that will collectively contribute to achievement of the NESP goal (NESP, 2016). Therefore, the MOE has prioritized and integrated a comprehensive approach to teacher education and which has conducted three strategies having ten components. This includes the component two of second strategies of NESP. There will be some needs as the problems of teacher training programmes for innovation. This study tries to explore the influencing factors on the component of teacher training programmes in education colleges.

Significance of the Study

According to NESP report, MOE is facing a number of challenges in deploying qualified teachers to all schools. There are three major challenges such as to ensure development and retention of quality teachers in the education management mechanisms and access to quality in both in-service and pre-service teacher education. In education colleges, it is essential to implement feasible management strategies that can attract new entrances with considerable potential to become quality teacher. In-service teachers training requires quality as continuous professional development programmes. During pre-service teacher training, teacher trainees need more opportunities to practice their new knowledge skill and pedagogic skills. Thus, pre-service teacher training needs to be redesigned.

Education colleges seek more effective system to address the restructuring the organization with the performance of higher education system. In educational terms, there has been a shift away from formal mode in which most students might have been viewed as passive recipients of teaching, absorbing information in an uncritical way, to a growing enthusiasm for active independent learning which encourages deep rather than superficial processing of information. In responses to the necessity for reforming education colleges, teaching programmes require to be in line with the needs and expectations of quality development in new dimensions.

Thus, based on the finding, three factors have been translated into actual situations in social, technical and managerial sub-system of education colleges for changing in quality development of the teacher training programmes.

Purposes of the Study

The main purpose of this study is to explore the influencing factors on teacher training programmes in education colleges. The specific objectives are as follows.

- To investigate the social factors, the technical factors, and the managerial factors that influence on pre-service teacher training programmes in education colleges.
- To examine the highest and lowest factors that influence on pre-service teacher training programmes in education colleges.
- To study the interrelationships between the three factors that influence on pre-service teacher training programmes in education colleges.

Research Questions

- Q₁:** To what extent do the social factors, technical factors, the managerial factors influence on pre-service teacher training programmes in education colleges?
- Q₂:** Which factors are the highest and lowest influencing on pre-service teacher training programmes in education colleges?
- Q₃:** Are there interrelationships between the three factors that influence on pre-service teacher training programmes in education colleges?

Scope of the Study

The first limitation is selecting the sample education colleges. There were twenty five education colleges in Myanmar out of them, fourteen education colleges from fourteen state and region of Myanmar (Education Colleges — Myintkyina, Loikaw, Hpaan, Haktha, Mawlamying, Kyaukphyu, Lashio, Monywa, Dawei, Taungoo, Magway, Mandalay, Yankin, Pathein) were selected randomly. The second limitation dealt with the participants who were selected randomly from the selected education colleges. The third limitation is that this study was based on systems concept although the subsystem process is especially emphasized and was only concerned with three factors (social, technical and managerial) that influence on teacher training programmes. The final limitation is the selected programme. Education colleges conduct both pre-service and in-service, teachers training program. This study focuses only on the pre-service teacher training programmes, Diploma in Teacher Education Training Programme and Pre-service Primary Teacher Training programme.

Definition of Key Terms

Quality assurance (QA)

Quality assurance is the processes that seek to ensure the learning environment (including teaching and research) reaches an acceptable threshold of quality (QQI, 2016).

Quality of teacher education

Quality of teacher education means combining the excellence, threshold, improvement and fitness for purposes (Venkataiah, 2011).

Teacher training

Teacher training refers to professional preparation of teachers, usually through formal course work and practice teaching (Darling-Hammond & Lieberman, 2013).

Theoretical Framework

Quality in Education

The concept of quality has been defined in several ways (Campell & Rozsnayi, 2002, cited in Mizikaci, 2006). Adams (1993) claimed that the terms efficiency, effectiveness, equity and quality have often been used synonymously in quality education. Establishing a contextualized understanding of quality means including the relevant stakeholders. Quality is indeed a multi-layered and complex word. So, the integration of the four sub layers will be summited as quality in education such as defining the quality, quality assurance and principles, excellent characters of educational institution. So, the definition of quality has been opened and

altered in not only probabilistic system but also deterministic system nature. Teacher Education is neither mere pedagogy nor acquisition development of the younger generation. It is inculcation of commitment and generation to contribute at the highest level of efficiency through a quality based approach (Venkataiah, 2011). Thus quality of teacher education means combining the excellence, threshold, improvement and fitness for purposes.

Quality Assurance and Principles

According to an integrated agency for Quality and Qualification in Ireland (QQI, 2016) quality assurance guide line defined that the quality assurance (QA) is the processes that seek to ensure the learning environment (including teaching and research) reaches an acceptable threshold of quality. A fundamental ASEAN's national qualification framework principle stated that quality assurance of higher education is the quality primarily rests with it education institutions themselves. The statements provide ten guidelines on the quality assurance processes systems through which higher education institutions demonstrate the accountability and safeguard the interests of stakeholders including students and society.

The Importance of Quality in Education Colleges

In the 21st century, qualitative transformation is required in higher education institutions which are functionally interdependent because the world workforce markets needs qualified person. The higher education sector, comprising various professional institutions should be venues where quality teaching, learning and training are conducted, quality researches undertaken and quality service rendered. This is because of society's needs and expectations towards higher education. It depends ultimately on the quality of its staff, students, teachers, programme, infrastructure and academic environments (Thein Myint, n.d., MOE, 2016).

Reasons for Requirement of Quality Assurance in Teacher Education

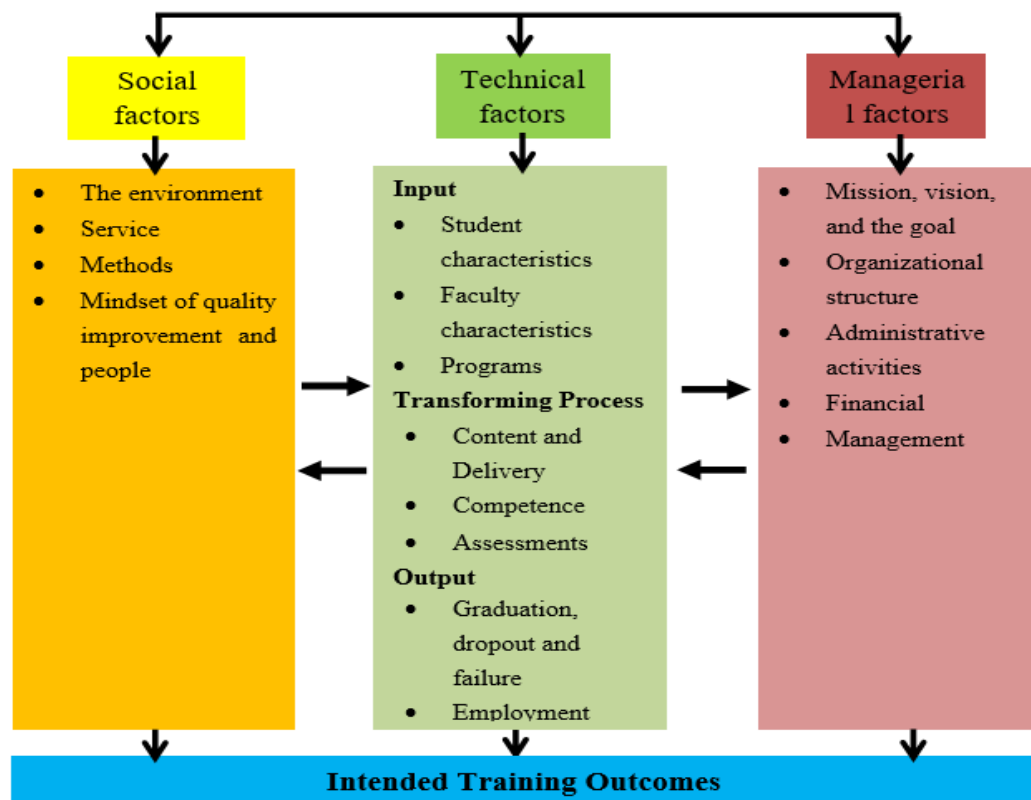
Quality assurance system needs to be transparent and provide sufficient information to the public and relevant stakeholders (Matei & Iwinska, 2016). Therefore, teacher training programmes should aspire to satisfy the requirement of their stakeholders and society. All the indicators for quality assurance are provided in the design and implementation of the programme for its proper assessment, which could bring out the problems faced in its implementation and for affordable corrective measures (Umar, 2007). Mizikaci (2006) proved that the implementing model has shown effective in encouraging cross-departmental and cross-institutional strategies for highlighting awareness of common issues, expectations of performance, facilitating communication and collaboration among, and within the branches, based on a common understanding of key values and concepts. Therefore, quality can be assumed a system approach or systematic plan and applied especially in the context of education colleges.

Systems Approach

The word "system" rooted from Greek origin *systema*, derives from *syn* meaning together and *histemi* meaning to set. A system is simply an assemblage or combination of things or parts forming a complex whole (Jenkins, n.d.). A concept and definition of the systems approach is a methodology for solving problem (Chen, 1975). The systems approach can assist in studying the structure and functions of education colleges and has been utilized as the inter-relations in various functions.

Educational Institution as a Sub-system

Bertalanffy (1972) verified that the overall system can be designed, fitted, checked and operated by the sub-systems to achieve the overall objective efficiently. So, educational institution is a system or sub system- it has inputs like students, infrastructure, financial resources, instructional resources, etc. The processes are admission, instruction, evaluation, etc., and outputs are the graduates - their behavioral, academic and physical qualities. Mukhopadhyay (2001) said that these components as inputs, processes and outputs are dependent on one another, in a systemic framework. Mizikaci (2006) proposed a model based on Tribus’ model and which is preceded by establishing social, technical and managerial systems simultaneously. There are some adaptionss of this model for the transformative nature of education colleges.



Source: Adaptive From Mizikaci (2006).

Figure 1 Pre-service Teacher Training Programme in Education Colleges

Research Methodology

Research Design

The research design for this study was a descriptive design.

Procedure for the Study

Researcher found out the related literature after formulating the problems and shooting the research questions. After that, the set of questionnaires was developed under the guidance of supervisor and discussions were taken with teacher educators from the methodology department to iron out the problem of questionnaire before sending to field expert persons. After preparing the instruments in order to get validation, expert review was conducted by nine experienced teacher educators from the education colleges. When ambiguities were found in the questionnaire

and test, some changes were made in the questionnaire and test after consulting with the experts. To find the reliability of the instrument a pilot test was administered with (66) teacher educators from Hlegu education college and Thingangyun education college in January second week. The same procedures of data collection was conducted in all state and regions to reduce the bias of study in collection the data. The data were collected with the help of principals and participants and then data were both input and analyzed by using the Statistical Package for the Social Science (SPSS 20).

Instrument

A questionnaire was used to investigate the influencing factors on pre-services teacher training programmes. The questionnaire was constructed based on The European Union Programme for Human Resources Development, on improving the institutional capacity of the Education and Teacher Training, Agency's (ETTA) assessment of the needs for teacher straining. The questionnaire consisted of Likert-type scale and open-ended questions. The total items were (60) on five point Likert-type scale from (1) to (5). In this questionnaire, Likert-type scale were composed into the three sections: social factors, technical factors and managerial factors. Twenty items for each factor were used. For items, the score closer to (1) indicated "Never/Strongly Disagree" and "Always/ Strongly Agree" was indicated by the score closer to (5).

Population and Sample Size

Among twenty five education colleges out of them fourteen education colleges from respective state and region of country (Myintkyina, Loikaw, Hpaan, Haktha, Mawlamying, Kyaukphyu, Lashio, Monywa, Dawei, Taungoo, Magway, Mandalay, Yankin, Pathein) were selected rondomly. There were randomly selected teacher educators (561) who were participated from five academic department and finance managements departments.

Data Analysis

The data were systematically analyzed by using the Statistical Package for the Social Science (SPSS20). The descriptive analysis techniques were used to calculate the means, the standard deviation and the percentage. Moreover, Pearson product- moment correlation was used to describe the relationship between three factors.

Research Findings

Findings of Influencing Factors on Teacher Training Programmes in Education Colleges

The categories and subcategories of influencing factors were adapted from Mizikaci's (2006) proposed an evaluation model for the quality implementations in higher education which was used to explore the influencing factors on teacher training programmes in education colleges in this research. The three main categories are: (1) social factors, (2) technical factors, and (3) managerial factors.

Findings of Influencing Factors in terms of Social Factors

In order to find out the influencing factors in terms of social factors, (20) items were used. The mean was (82.27) and the standard deviation was (8.606). According to the results, the lowest mean and the highest mean were (77.38) and (87.16) respectively. Figure 2 presents the comparison of the means of all the selected education colleges.

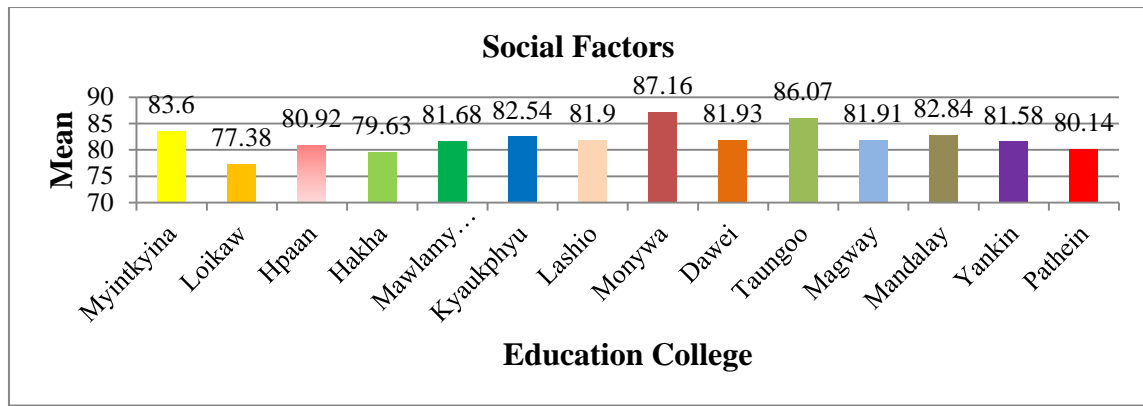


Figure 2 Means of Influencing Factors in terms of Social Factors on Teacher Training Programmes in the Selected Education Colleges

Besides, it is necessary to find out the percentage of the influencing levels for the social factors which are influencing on pre-service teacher training programmes. The full score for questionnaire of social factors was (100). The sample mean and the standard deviation in influencing social factors were (82.27) and (8.606) respectively. Based on the scores of the questionnaire of social factors the score below (74) were identified as low influencing level, and the score between (91) and (74) were considered as moderate influencing level, and the score above (91) were identified as high influencing level. These scores refer to the performance scores of participants.

Table 1 Influencing Level of Social Factors

Influencing Level of Social Factors	Score (x)	Percentage (%)
Low	$x < 74$	18
Moderate	$74 \leq x \leq 91$	71
High	$x > 91$	11
Total		100%

Findings of Influencing Factors in terms of Technical Factors

In order to find out the influencing factors in terms of technical factors, (20) items were used. The mean is (72.40) and the standard deviation is (11.280). According to the results, the lowest mean and the highest mean were (67.08) and (77.38) respectively. Figure 3 presents the comparison of the means of all the selected education colleges.

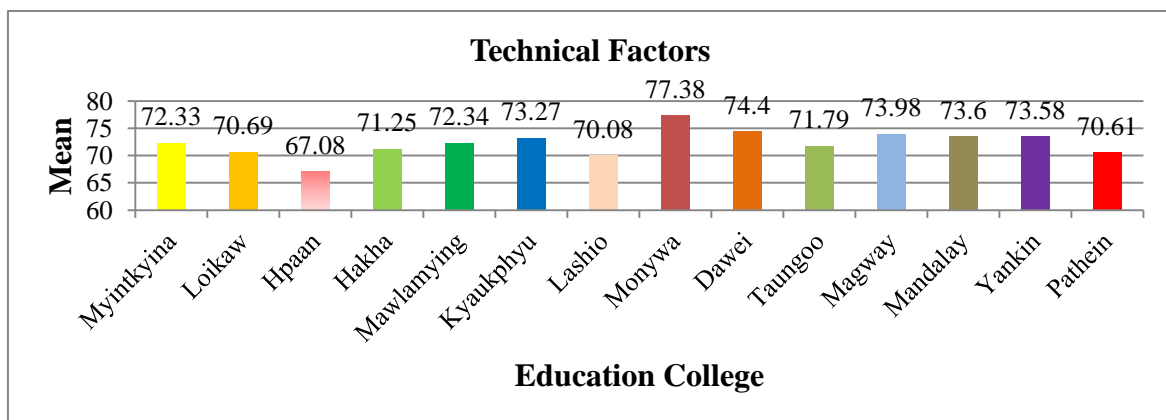


Figure 3 The comparison of the means of all the selected education colleges

The full score for questionnaire of technical factors was (100). The sample mean and the standard deviation in influencing technical factors were (72.40) and (11.280) respectively.

Based on the scores of the questionnaire of technical factors which are influencing on pre-service teacher training programmes, the score below (61) were identified as low influencing level, and the score between (84) and (61) were considered as moderate influencing level, and the score above (84) were identified as high influencing level. These scores referred to the performance scores of participants. The (99) participants had low level of performance so influencing level 18% was the low influencing level, (388) participants had moderate level of performance so influencing level 69% was the moderate influencing level, and (74) participants had high level of performance so influencing level 13% was the high influencing level.

Table 2 Influencing Level of Technical Factors

Influencing Level of Technical Factors	Score (x)	Percentage (%)
Low	$x < 61$	18
Moderate	$61 \leq x \leq 84$	69
High	$x > 84$	13
Total		100%

Findings of Influencing Factors in terms of Managerial Factors

In order to find out the influencing factors in terms of managerial factors, (20) items of questionnaire were used. The mean is (72.46) and the standard deviation is (12.141).

According to the results, the lowest mean and the highest mean were (66.66) and (77.40) respectively. Figure 4 presents the comparison of the means of all the education colleges.

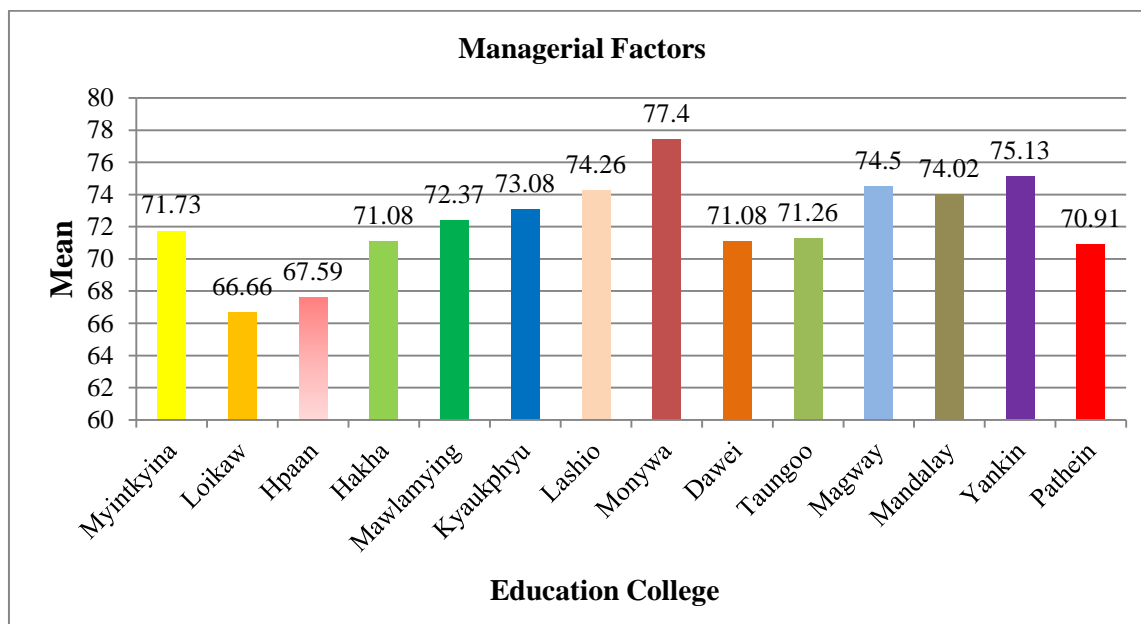


Figure 4 The Comparison of the Means of All the Education Colleges

The sample mean and the standard deviation in influencing managerial factors were (72.46) and (12.141) respectively. Based on the scores of the questionnaire of managerial factors which are influencing on pre-service teacher training programmes, the score below (60) were identified as low influencing level, and the score between (85) and (60) were considered as

moderate influencing level, and the score above (85) were identified as high influencing level. These scores refer to the performance scores of participants.

Table 3 Influencing Level of Managerial Factors

Influencing Level of Managerial Factors	Score (x)	Percentage (%)
Low	$x < 60$	15
Moderate	$60 \leq x \leq 85$	72
High	$x > 85$	13
Total		100%

Findings of Total Influencing Factors on the Pre-service Teacher Training Programmes in Education Colleges

In order to find out the influencing factors: the social, technical and managerial factors on the pre-service teacher training programmes, (60) items of questionnaire were used. The mean is (227.14) and the standard deviation is (26.998). The score for influencing social factors ranged from (124) to (290).

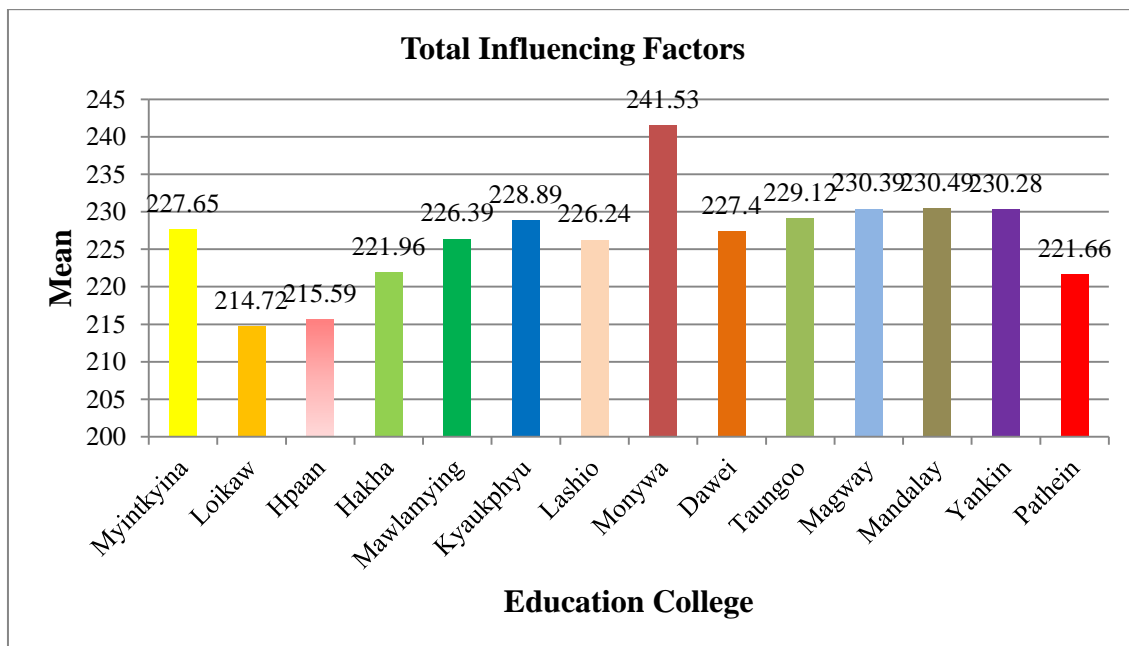


Figure 5 The Comparison of the Means of Total Influencing Factors on Teachers Training Programmes in the Selected Education Colleges

The sample mean and the standard deviation in influencing factors were (227.14) and (26.998) respectively. Based on the scores of the questionnaire of all influencing factors which are influencing on pre-service teacher training programmes, the score below (200) were identified as low influencing level, and the score between (254) and (200) were considered as moderate influencing level, and the score above (254) were identified as high influencing level. These scores referred to the performance scores of participants.

Table 4 Influencing Level According to Three Factors

Influencing Level of All Three Factors	Score (x)	Percentage (%)
Low	$x < 200$	16
Moderate	$200 \leq x \leq 254$	69
High	$x > 254$	15
Total		100%

Findings of Interrelationships of Three Factors on Teacher Training Programmes of Education Colleges

Further analysis was conducted to examine the relationships among the influencing factors on pre-service teacher training programmes of education colleges: social factors, technical factors and managerial factors. The Pearson product-moment correlation was used to determine the interrelationships, of three categories of influencing factors (see Table 5).

Table 5 The Interrelationships between the Three Influencing Factors on Teacher Training Programmes of the Selected Education Colleges

Correlation			
	S	T	M
Social Factors (S)	1	.435**	.454**
Technical Factors (T)		1	.734**
Managerial Factors (M)			1

** . Correlation is significant at the 0.01 level (2-tailed).

It was significant high relationships. The direction of the relationships were positive. This means that if one of the influencing factors is high, the other influencing factors are likely to be high or if one of the influencing factors is low, the other influencing factors are likely to below.

Discussion, Suggestions, Conclusion

Discussion

Under the guidance of NESP strategic seven, all education colleges have implemented to achieve the quality improvement and quality assurance. The dynamic aspect of quality system, such as the outputs and the process perspective refer to the teacher education and its quality is easy to revert to managerial concepts such as quality mechanisms (Hudson, Brian, Zgaga, Pavel & Åstrand, Björn, 2010). At the view point of system approach there is transforming into open system to achieve the quality by pragmatists who are more willing to put that belief into practice (Ozmom, 1986).

Thus social factors moderately influenced on teacher training programmes. The social system of teacher training programmes possessed adequate judicious environment, reasonable service and innovated working method to support the pre-service training programmes. The physical aspects of the learning environment can affect psychological and social behavior (Moos, 1979). The Influencing of social factors confirmed that adequate learning environment can provide the quality improvement. So, influencing factors, social system influenced as hallmarks of education colleges and its training programmes. These potentiality should be driven force as energetic input for others sub-systems (technical and managerial factors) development in cyclic process.

Secondly, according to the findings, the technical factors moderately influenced on teacher training programmes. Technical factors demoted strengthening in its component sub factors. So, most of teacher educators comprehended in pedagogical delivery although not all utilize effectively in technical transforming process. Navaratnam (1997) pointed out that in case of input and output, it is necessary to identify various processes in the school with qualitative attributes. So, teacher educators should have potentially adopted and adapted in the technical transformation process in the professional field. Effective training program recognized the teachers' quality and requested to teacher competency frame work for professional development. So, there are essentially demands for upgrading in those factors of quality transformation.

Thirdly, according to the findings, managerial factors are moderately influenced on teacher training programmes. Mukhopadhyay (2001) said that recognize the management profitability is essential to future success. Participatory management and team work are natural associates of total quality management Mukhoadhyay (2001). Thus managerial factors as cooperative structures and adaptive systems, which governed the steady state for open system nature. So, moderate level of management considered there was participatory management provided exposure and engaged the pre-service teacher training programmes.

Fourthly, the social factors were the most influenced among the others factors. the technical factors were the lowest influenced among the others factors on teacher training. This finding showed that the managerial factors were nearly similar to the technical factors. Therefore, it is assumed that not only the managerial factors but also the technical factors were less influence than social factors.

The system point of view those three sub system were composed as pre-service teacher training programmes, in which the social sub-system had the tendency to confine sociological observations to the positive contribution to system and most of teacher educators have the dysfunctions. Although technical sub - system, managerial sub - system had manifest function in more contribution to adjustment and adaptation of system development and quality improvement. Pre-service teacher training programme of education colleges should try to be more open system nature and should be improved by more supporting in resources, technical, finical, physical and psychosocial-environment and other supports.

This finding proved that Bertalanffy (1972) viewed as a system as a set of elements standing in interrelation among themselves and with the environment. The research findings were in line with system thinking, all system; physical or soft must have predetermined objective that the interrelated components strive to achieve (Patton & McCalman, 2000, cited in Mukhopadhyay, 2001). To sum up, the pre-service teacher training programmes of education colleges were influenced by moderate level in the social factors, technical factors and managerial factors among them, the social factors were the highest and technical factors were lowerest. Besides, three factors had intercorrelation as well as significantly positive relationships. Thus proved Bertalanffy's systems theory, is that the whole is more than the sum of its parts that the whole determines the nature of the parts, and the parts are dynamically interrelated and cannot be understood in isolation from the whole.

Suggestions for Social System

Education colleges having the sound environment, health and safety and access to their stakeholder, should be more established and implemented. (eg: electronic library, health care

center, recreation center, information and news center). That suitable maintenance staff should be trained or appointed to improve the physical conditions and resources. That the relationship among education colleges, education institutes, other university, basic education schools and community should be more continued and improved where necessary.

Suggestions for Technical System

System to redesign, develop, review and approve curricula for the teacher training programmes and contents with relevant and up-to-date for educational innovation. That a long term action plan for curriculum renewal should be designed and implemented. Teacher competences in the various level of categories should be identified and legally prescribed. Key performance indicators and targets should be established to measure the performance of teachers' competency and strategic goals of the programmes. The appropriate incentive schemes should be developed to attract the most competence teacher educators into the education colleges. Making the research and using the results in educational training programmes should be reflected and encourage for quality improvement of education colleges. The process of student assessment including the grading criteria should be documented and communicated to students on commencement of a programme and employability. Employability of graduates of the training programmes should be established the probation and tenureship process for monitoring and examining.

Suggestions for Managerial System

The mission of education colleges should be more cascaded and demonstrated for implementation under the. Full strength of staff capacity should be urgently appointed. Each college should prepare staff development plans which incorporate reflective research activities for each staff member's. External relations, networks and partnerships should be established and improved to achieve the strategic goals of the education colleges. Funds should be established available for education colleges to pursue research and areas of interest and relevance to improve the quality for teacher training programmes of education colleges.

Conclusion

The study for the exploration an influencing factors on teacher training programmes has been conceived as a tool to introduce the system perspective to all aspects of pre-service teacher training programmes, notably, social system, technical system and managerial system for quality improvement. It was recognized teacher training programmes, sub –system of teacher education system should have the nature and the character of open system for quality development. It was teacher training programmes reflected the overall expectation of quality education open system and faced ever-increasing demand for equifinality of the system.

All teacher educators should sustain and strengthen the existing positive factors of the programmes and establish not only the quality system but also the local networks in regions and states. These network can serve as platforms to exchange information and good practice, disseminate knowledge, increases the understanding of development and challenges as well as professional expertise of teachers' educators. This study can take parts as the small corner point of view for quality improvement in pre-service teacher education. The finding reveal that there are positive influencing factors and a clear understanding of what needs to be done to improve pre-service teacher training programmes. In addition these factors have translated into actual

situations for changing in quality development of the teacher training programmes. The findings should be taken account in prioritization and transforming process to try and generalize these positive influencing factors across the system as a whole. Therefore, to improve the quality of teacher education programmes further studies should be conducted to evaluate both in-service and pre-service teacher training programmes of education colleges.

References

- Adams, D. (1993). *Defining the educational quality .Improving the educational quality projects publication*. Binnial report.Arlington, VA: Institute of Internal Research.
- Bertalanffy, L. (1972). *General systems theory: Foundations, development, application*. New York: George Braziller Inc.
- Bishop, G. (1986). *Innovation in education*. London: Macmillan.
- Chen, G. K. (1975). What is the systems approach?. *Interfaces.Vol.6.No.1*. Retrieved December 24, 2017 <http://WWW.Ask-force.org/web/Discourse/chen-what-is-systems-approach-1975>. Pdf
- Darling-Hammond, L., & Lieberman, A. (2013). *Teacher education around the world: Changing policies and practices*. New York:Taylor & Francis group.
- Hudson, Brian, Zgaga,Pavel & Åstrand, Björn .(2010). *Advancing quality cultures for teacher education in Europe: Tensions and opportunities, slovenia*, Umeå: Umeå School of Education, Umeå University,
- Jenkins, G.A. (n.d). *The system approach*. Retrieved October 18, 2017, from <http://citeseerx.ist.psu.edu/>
- Matei, L., & Iwinska, J. (2016). *Quality assurance in higher education: A practical handbook*. Retrieved December 5, 2017 from <https://elkanacenter.ceu.edu/sites/elkanacenter.ceu.edu/files/attachment/basicpage/57/qahandbook.pdf>.
- Ministry of Education (MOE). (2016). *Higher education in Myanmar: (Structure long term plans, higher education policy and accessibility to quality education)*.
- Mizikaci, F. (2006). *A systems approach to program evaluation model for quality in higher education*, 14(1), 37-53.
- Moos, R.H. (1979). *Evaluating educational environments: Procedures, Measures, Finding and Policy Implication*. San Francisco: Jossey-Bass
- Mukhopadhyay, M. (2001). *Total quality management education*. New Delhi: National Institute of Educational Planning and Administration.
- National Education Strategic Plan 2016-21 Summary. (2016). The Government of the Republic of the Union of Myanmar Ministry of Education.
- Navaratnam, K. K. (1997). *Quality management in education must be a never- ending journey*. London: Cassell.
- Ozmom, A. H & Craver, S. M. (1986).*Philosophical foundations of education*. Ohio: Merrill publishing company.
- Porter,F., & Goble, N. (1977).*The chaining role of the teachers*. Paris: ImprimeriesRe'unies S .A.
- Venkataiah, N. (2011). *Teacher education*. Delhi. A.P.H. Publishing Corporation.