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Impact of 'Foundation Training for University Teachers' Conducted by Bangladesh Agricultural University

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Abstract

This paper examined the impact of 'Foundation Training for University Teachers' through four levels of learning evaluation model proposed by Donald Kirkpatrick. Data for the study were collected in 2015 through mailed questionnaire and semi-structured interviews. A total of 109 questionnaire responses out of 299 trained faculties of 25 public universities and 30 semi-structured interviews of them were analysed for this study. The overall impact of the training was very high at all learning levels; scores were 88.2% for ***reaction***, 82.6% for ***learning***, 86.4% for ***behaviour*** and 93.8% for ***results***. While the quantitative data showed highest score on ***results***, qualitative data showed contradictory findings on it. The participants experienced many challenges to yield ***results***, such as lack of financial support from respective institute and resistance from senior colleagues who had not received FTUT. Among other levels of the model, ***learning*** showed the lowest score and it showed similarity with the qualitative responses, which revealed that the resulting increase in ***learning*** (in terms of knowledge, skills and attitudes) was low. The mismatch between theory and practice, inability to practice classes with real students, and lack of variation of trainers etc. might be the reasons for the lower extent of ***learning***. The study concludes that training of faculties alone cannot create good impact on institutes; it needs support of colleagues and governance of university.

Keywords: *Foundation Training, University Teachers, Bangladesh Agricultural University*

Introduction

University students of the 21st century expect different educational experiences than was typically provided by universities 40 years ago. This has motivated higher education institutions to take action to raise the quality of teaching and enhance the student learning experience (Knapper, 2003; Hanbury *et al*., 2008). Teacher training programme to enhance teaching performance and learning is not new in many higher education institutions, particularly throughout the USA, UK, and Australia and in Asian countries. For example, many Australian universities require newly recruited academic staff to undertake an initial teacher preparation program in the first years of their appointment and encourage their staff to regularly participate in professional development related to teaching through offering an extensive range of programmes. Similarly, universities in countries such as Sweden, Norway, United Kingdom, Malaysia and Sri Lanka have made pedagogical training of university teachers compulsory as one step towards assuring the quality of teaching (Gibbs & Coffey, 2004; Roxa & Martensson, 2008; Parsons *et al*., 2012). However, it is interesting to note that some countries in Asia, like Bangladesh do not require any training of university teachers before commencing their teaching

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at the classroom. This suggests lack of policy from the government[1] regarding higher education quality assurance and therefore investment in training is very low. There is rarely any organization that provides opportunities for teachers to participate in teachers' professional development training program.

Graduate Training Institute (GTI) of Bangladesh Agricultural University (BAU) is the only institute that organizes faculty training for other universities of Bangladesh. The institute began a multi-module training course entitled 'Foundation Training for University Teachers' (FTUT) in 2007. In general, this program was designed with the aim to improve pedagogical skills, research, administration and IT skills of the young and newly recruited teachers of the public universities. Initially it was 56 days' intensive training and now the course spans about 27 days. Financial supports for this training comes from the University Grants Commission of Bangladesh (UGC), the apex statutory body in Bangladesh who supervise, maintain, promote and coordinate university education. After conducting the training for eight years on *adhoc* basis, the question arose about its quality, usefulness for the tertiary education community and justification of further investment by the UGC. To get answers to all these questions, a systematic evaluation of the FTUT program became imperative.

Evaluation of training is not common practice in Bangladesh. A single study was carried out by Islam (2012) who evaluated the impact of the Foundation Training Program to examine a range of aspects of academic practice, with a particular emphasis on values, policies, regulations and standards. In 2014, the stakeholders thought that there should be an impact study of FTUT to justify whether the time and resources utilized for this program have made any significant contribution to the individual trainees as well as their respective institutions. With this aim, this study examined the impact of FTUT by using Donald Kirkpatrick's (1998) evaluation model. Specifically, this study was carried out to determine the impact of FTUT in respect of teachers':

(a) ***Reaction*** (how well did the learners like the learning process?)
(b) ***Learning*** (what did they learn and how much they learnt?)
(c) ***Behaviour*** (how well they are capable to practice the newly learned skills on the job?), and
(d) ***Results*** (what changes did it make to the organization in terms of quality, efficiency, morale and increased client satisfaction etc.?)

[1]It is here to be noted that recently Bangladesh Government is giving emphasis in achieving excellence in higher education comparable to global standards. The approved Strategic Plan for Higher Education in Bangladesh (2017-2030) defines the national higher education strategy to establish equity and guarantee access to higher education by anyone qualified to pursue it, and to prepare the learners as ideal citizen (Rahman *et al.,* 2019).

Methodology

The study was carried out at GTI, Bangladesh Agricultural University, Mymensingh during 2014-15. Since its inception to 2014, the total number of FTUT was 13, and 299 young faculties from 25 public universities of Bangladesh participated in these courses who were the population of this study (Table-1). This study was focused explicitly on the impact of the FTUT in terms of Kirkpatrick's learning evaluation model. There are several models those have been proposed to review the effects and impact of teacher development programmes (Kirkpatrick, 1998; Chism & Szabo, 1997; Guskey, 2002; Stes *et al*., 2010). But, the Kirkpatrick Model (1998) is probably the best known model for analyzing and evaluating the results of training and educational programmes. It takes into account any style of training, both informal and formal, to determine aptitude based on four levels criteria, i.e. *reaction, learning, behaviour and results*.

The study was exploratory in nature and involved both quantitative and qualitative methods. The instruments used for data collection for the study included a questionnaire and semi-structured interviews. A questionnaire was developed and was mailed to all 299 participants out of which 109 responses were obtained which represent 37 percent of the population. There were a total of 20 items in the questionnaire under the Kirkpatrick's four levels to determine the impact of FTUT program. The questionnaire included items relating to teachers' (i) ***Reaction*** (for example, did they enjoy the program, was it relevant, did they like the learning and interaction opportunities, etc.); (ii) ***Learning*** (e.g., did they learn what they intended to learn, did the training enhance their intellectual ability in teaching, etc); (iii) ***Behaviour*** (e.g. did they see any measurable change after attending the training, do they use the relevant knowledge and skills in their work); and (iv) ***Results*** (e.g., do their students get more benefit from their teaching, do they involve themselves in academic activities more, etc.). These items were measured on a four-point rating scale starting from A to D, while 'A' represented the 'highest value' and 'D' represented 'the lowest value'.

Semi-structured interviews, another data collection technique were also used to explore some of the issues identified by the analysis of the questionnaire responses. Emails were sent to 50 respondents to take part in this study as volunteers. However, only 30 faculties willingly responded to semi-structured interviews and talked about their experience of the FTUT and its impact on their teaching. These respondents were asked to answer questions like what were the strengths and weaknesses of the training program, if they had noticed anything in the training program that is worthy of improvement, if the training had changed the way they teach, did they have any difficulties in passing their gained skills and knowledge to the colleagues after returning to their respective universities, and what are the main challenges in improving teaching and learning at universities, and so on. Quantitative data were recorded in Microsoft Excel and analyzed using descriptive statistics. For qualitative data, content analysis technique was used to analyze the semi-structured interviews based on Kirkpatrick's (1998) four levels of evaluation criteria.

Results & Discussion

This chapter includes three sections: description of FTUT participants, quantitative findings of survey and qualitative findings.

Description of FTUT participants

The GTI conducted 13 FTUT courses during 2007-2014. Through these courses the institute provided training to 299 young faculties of 25 public universities of Bangladesh (Table 1). Among them 201 were Lecturer, 96 were Assistant Professor and 02 were Associate Professor. A vast majority of these trainees, about 67 percent came from seven agricultural or Agriculture-dominated universities such as BAU, BSMRAU, CVASU, HSTU, PSTU, SAU and SylAU. This was mainly because of the affiliation of BAU with these agriculture-related universities. Many young faculties of these universities are either alumni of BAU and or they plan for postgraduate studies (MS & PhD) at BAU. The BAU alone sent 27 percent participants; this was because of its situational advantage. Among others, SylAU was next to BAU because of the interest of its' faculties for the training and a systematic approach of giving nomination for this training by SylAU authority. It is notable here to see that, the old and large universities like DU, RU, CU and JU also nominated their young faculties to participate in the training except BUET. It is our understanding that BUET along with other engineering universities did not participate in this training because of their specialty and year-long busy schedule of their faculties.

Quantitative Findings of Survey

In response to the questionnaire, there was a clear sense that all the participants were very positive about the FTUT program as a whole and they felt that it had a positive impact on their work. Among the 20 items included in the questionnaire, the range of scores was 3.12 to 3.80 with a mean of 3.5 (87.5 percent) out of 4.0 (Table 2). The three items scored highest positive were: (i) the training was relevant (3.80), (ii) students get more benefit from their teaching (3.79), and (iii) they involved themselves more in academic activities (3.76). On the other hand, the three lowest scored items were: (i) they had acquired the skills which they expected to acquire (3.12), (ii) they had been able to transfer the knowledge and skills to their colleagues (3.16), and (iii) they learned something beyond their expectation (3.17). Most of the items of ***Result*** level scored very high, whereas most of the items of ***Learning*** level scored comparatively low. These findings indicate that the FTUT brought noticeable change in participants' involvement ***(Result)*** in pedagogical practices after they went to their respective universities. On the other hand the participants expressed least satisfaction in respect of their fulfillment of ***(Learning)*** expectation from the training. In fact, it is very difficult to fulfill the expectations of participants in any training because expectations always remain high.

Table 1 List of universities with their number of faculties participated in FTUT during 2007-14

	Name of University	Number of participants	% of participants
1.	Bangladesh Agricultural University (BAU)	81	27.09
2.	Bangladesh Open University (BOU)	03	1.00
3.	Bangladesh University of Professionals (BUP)	02	0.67
4.	Bangabandhu Sheikh Mujibur Rahman Agricultural University (BSMRAU)	16	5.35
5.	Bangabandhu Sheikh Mujibur Rahman Sc. & Tech. University (BSMRSTU)	01	0.33
6.	Barisal University (BU)	01	0.33
7.	Chittagong Veterinary and Animal Sciences University (CVASU)	13	4.35
8.	Dhaka University of Engineering & Technology (DUET)	02	0.67
9.	Hajee Mohammad Danesh Science & Technology University (HSTU)	17	5.69
10.	Islamic University (IU)	04	1.34
11.	Jatiya Kabi Kazi Nazrul Islam University (JKKNIU)	02	0.67
12.	Jagannath University (JnU)	02	0.67
13.	Jessore University of Science & Technology (JUST)	05	1.67
14.	Jahangirnagar University (JU)	15	5.02
15.	Khulna University (KU)	14	4.68
16.	Mawlana Bhashani Science & Technology University (MBSTU)	04	1.34
17.	Noakhali Science & Technology University (NSTU)	12	4.01
18.	Patuakhali Science and Technology University (PSTU)	21	7.02
19.	Pabna University of Science and Technology (PUST)	01	0.33
20.	Shahjalal University of Science & Technology (SUST)	03	1.00
21.	Sher-e-Bangla Agricultural University (SAU)	20	6.69
22.	Sylhet Agricultural University (SylAU)	32	10.70
23.	University of Chittagong (CU)	13	4.35
24.	University of Dhaka (DU)	04	1.34
25.	University of Rajshahi (RU)	11	3.68
	Total	**299**	100.00

The quantitative data were further analyzed to compare participants' response along four broad levels of Kirkpatrick's model. The findings showed that percentage scores at four levels ranged between 82.55 and 93.75 (Figure-1). These data imply that impact of FTUT was very high in all four levels of the model. However, the ***Results*** (post-training involvement related items) among them carried the highest position and it was followed by ***Reaction*** (affective items), ***Behaviour*** (practice related items) and ***Learning*** (expectation items). As scores of all learning levels of the model were very high, these data could not satisfy the researchers to find out the challenges of the training and its utilization at university level.

Table 2: Response of participants regarding 20 items under Kirkpatrick's Model (N=109)

Item No.	Four Levels of Kirkpatrick's Model	Score (out of 4)	Mean score
	A. Reaction		
1	Did you enjoy the program?	3.59	
2	Was it relevant?	3.80	
3	Was it a good use of your time?	3.50	**3.53**
4	Did you like the learning and interaction opportunities?	3.44	
5	Did you think that it was successful?	3.31	
	B. Learning		
6	Did you learn what you intended to learn?	3.20	
7	Did you acquire the skills you expected to acquire?	3.12	
8	Did you learn anything you did not expect to learn?	3.17	**3.30**
9	Did the training enhance your intellectual ability in teaching?	3.50	
10	Was the extent of overall advancement satisfactory?	3.52	
	C. Behaviour		
11	Was the content and learning from the training practicable?	3.60	
12	Did you see any measurable change after attending the training?	3.37	
13	Do you use the relevant knowledge and skills in your work?	3.54	
14	Was the development in knowledge and skills sustainable?	3.50	**3.46**
15	Have you been able to transfer the knowledge and skills to your colleagues?	3.16	
16	Did the training inspire you to change your institutional environment?	3.57	
	D. Results		
17	Do you involve yourself in academic activities more?	3.76	
18	Do you spend more time on teaching-learning and research?	3.73	**3.75**
19	Do you teach and assess students better?	3.72	
20	Do your students get more benefit from your teaching?	3.79	

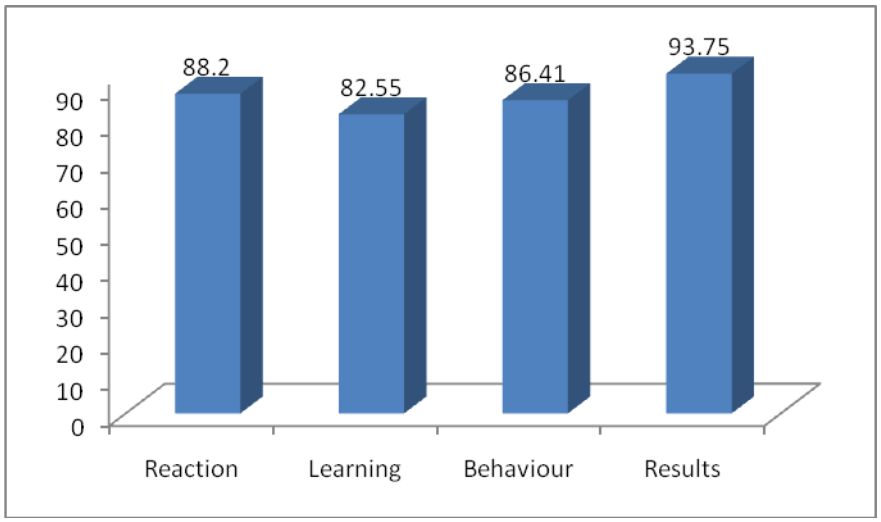

Figure 1 Participants' response on four levels of Kirkpatrick model (N=109)

Qualitative Findings

In order to find out the challenges during and after the FTUT, the researcher had to adopt qualitative research techniques. These techniques included semi-structured interviews of participants. Semi-structured interviews followed the similar pattern of Kirkpatrick model; researchers asked them questions related to ***reaction, learning, behaviour*** and ***results*** to reconfirm the quantitative findings.

(i) Reaction: Studies consistently show that teacher development programmes are typically well received by the participants reporting overall satisfaction and positive changes in attitudes towards teacher development programmes (Steinert *et al*., 2006; Postareff *et al*., 2007). Unsurprisingly, teacher development programmes that are voluntary tend to be rated more highly than compulsory programmes (Chng & Swee Kit, 2013). The FTUT program which is conducted by GTI was voluntary. In this study, participants thought the content of FTUT were informative and compatible with the tertiary education in Bangladesh. They thought that as a new member of academic community, FTUT was beneficial and effective at preparing them to teach and advance their career well. One of the participants commented in this regard:

> *The contents were very interesting. This training is really important especially for newly recruited teachers. Not everyone enters into teaching profession just after completing university degree. I have completed my Masters degree in 2005, but joined the university after six years. So, this type of training should be compulsory for the newly recruited teachers.*

It is here to be noted that the FTUT program conducted by GTI contains five modules, i.e. (i) Teaching-Learning Methods and Techniques, (ii) Project Management and Scientific Report Writing, (iii) Statistical Methods and Data Analysis, (iv) Administration and Office Management, and (v) Food, Nutrition and Health. Participants expressed their feelings positively about the training modules. Since participants were from different academic background, their choice regarding the module was different but they thought that it was a very good use of their time, as the following comments suggested:

> *I liked the 'Scientific Report Writing' most. For me, it was most important because this would help me to guide final year students who need to prepare thesis.*
>
> *I would say this training was very helpful for me. The most important one was 'Teaching Methods and Techniques', particularly assessment part...to know how to evaluate assignment, thesis, and test papers of the students properly.*

Whatever their choice was regarding different modules, it was clear that participants were satisfied with the FTUT program, to a considerable extent.

(ii) Learning: Researchers have conducted studies on the impact of teacher development programmes on teaching knowledge (i.e. acquisition of new or enhanced concepts, procedures and principles) and teaching skills (i.e. acquisition of thinking/problem solving, psychomotor and social skills) and teacher attitudes (i.e. changes in attitudes or changes in ways of thinking towards teaching and learning) (Akerlind, 2007; Postareff & Lindblom-Ylanne, 2008; Hanbury *et al*., 2008). While the majority of these studies have identified positive changes in teacher attitudes and beliefs, these studies have also noted that there is complexity linked to the characteristics and beliefs of the participants that the

individuals bring to the training context. The initial conceptions and beliefs teachers hold about teaching may influence potential learning from teacher development programmes. For example, teacher development programmes may be considered irrelevant if teachers hold beliefs that teachers are born, not made (Norton *et al*., 2013; Knapper, 2013). In this study, majority of the participants talked about their increased knowledge, skills and positive changes in attitudes which is the result of this FTUT, as the following comments suggested:

> *I have learnt many things from here, i.e. how to use variety of teaching aids and methods, how to prepare questions using different levels of Bloom's Taxonomy. The idea of preparing lesson plan was new to me.*
>
> *Now I know how to conduct theory and practical classes. I came to know question-answer techniques during delivering a lecture.*

Though these above responses revealed increased knowledge and skills of the participants but they thought that the theory and practice session were not well matched. They said that the theory part was useful, but they recognised the need to link theory into practice. This suggests that FTUT program was mainly teacher-centered and content-oriented transmission model of teaching (Entwistle and Walker, 2000) rather than participant-centered learning, which places the participant at the centre of decisions relating to learning and helps to enhance conceptual understanding (Kember and Kwan, 2000). Participants indicated that more could have been done to link theory into practice (including more of the micro-teaching approach).

> *They [trainers] are delivering lectures on theory. Some sessions are interactive but there should be more interactive and participatory sessions. They should keep more time for workshops and discussions. That's why the duration of this program should be extended. Also, video demonstration could enhance our learning. They are telling us how to manage a class. If they show us a video of an ideal class of a renowned professor, that will have more impact on our teaching.*

In addition, participants wanted the chance to develop their skills by working with real students, and to be taught by people who demonstrated good practice. They thought that there should be a model class, with some model students to make it realistic:

> *The micro-teaching is essential. It is already here which contains 10 minutes or 15 minutes. I would like to give more emphasis on it. It should be shifted to the real classrooms. The participants will deliver the lecture for 50 minutes or 45 minutes, like the real lecture classes. The students will be the real students. There will be some senior trainers who will sit at the back of the classes and observe. They will make notes and give feedback- like these are your good points and these are the weak points where you can improve.*

This idea of the model class is not possible in the GTI classroom rather it should be executed in their respective universities where peer observers might help them in this regard. However, there was some sense that they wanted to move beyond existing 'best practice' to explore new approaches to working with students, especially approaches that encourage a more interactive and student-centered learning.

They also–in retrospect– feel a need for some recognition of the differences between disciplines.

> *The program is very nice, but the teachers and examples are*

> *Agriculture-based. As the training is organized for university teachers who are from different fields, this training should be field-oriented [discipline specific]. This would make it helpful for everyone. I am from a Geology background, but some teachers are taking Agriculture-orientated practical classes. This time is totally lost.*

For this type of mixed group, it is hardly possible to organize discipline specific training program or allowing them practice field-oriented issues. This could be done through Continuous Professional Development (CPD) programme in their respective universities since this require funding and continuous mentor support. The above weaknesses of the FTUT might be the fact that their learning was low, which resembles with the responses of quantitative data on '***Learning***' which carries the lowest score (82.55%).

(iii) Behaviour: In response to the question whether the training has changed the way they teach, many of the participants commented that FTUT has changed their way of teaching. One of the participants commented:

> *My teaching has changed significantly. When I apply the techniques in the classroom, I understand there is a huge improvement in my teaching particularly in terms of how to handle students.*

It is interesting to note that although majority of the participants felt that it has changed their approach to teaching, but few could identify specific changes.

> *Some topics were of benefit after the training program…how to present … use of blackboard, whiteboard ... PowerPoint slides ... teaching techniques.*

The inability to identify specific changes indicates the need to provide some support with continuous development for these participants to introduce a reflective and critical approach to their teaching.

In response to the question whether they have any difficulties in passing their skills and knowledge to colleagues after returning to respective universities, a number of participants misunderstood the question. Although respondents answered this question in the questionnaire, but the researcher had the feeling that most of these answers were invented to meet researcher's expectations. For example,

> *When I discuss with my colleagues, I try to disseminate knowledge to them. I'm interested to give some lectures which will help my colleagues with their teaching.*

The fact is that facilities available to disseminate knowledge and skills in the department or universities are poor. Public universities do not encourage or discourage pedagogical improvement. There is no reward, punishment, or incentive for attending this type of program. In addition, senior colleagues do not willingly accept any new ideas relating to teaching planning, delivery, and assessment, and therefore the newly appointed faculties who get this FTUT do not get any support to disseminate their knowledge in their respective departments or universities. This finding supports the finding of research relating to the transfer of learning from teacher development programmes (Gibbs & Coffey, 2004; Southwell & Morgan, 2010).

(iv)Results: The importance of the organizational culture, practices and support was recognised by Guskey (2002, p.48) as a critical input indicator, arguing that the "lack of organizational support can sabotage any professional development effort, even when the individual aspects of professional development are done right". There is limited research which shows the impact of

teacher training programmes on organizational policy, culture, practices and support. This may be more of a consequence of the focus and purpose of the training program being largely targeted at the teachers.

In this study, few participants reported that they had become more involved in teaching and research and teaching policies in their respective departments/universities. For these participants, a key facilitating factor for increased organizational engagement was the positive reaction of colleagues and students to a teaching innovation. Key negative factors identified as impediments to introducing student-focused teaching practices included large classes, pressures to research and publish, and lack of practical and policy support.

> *Basically, I have an intention to disperse this knowledge among young teachers. We colleagues discuss with each other to improve our teaching. However, I am not able to arrange a seminar where I can disseminate my knowledge which I have gained from FTUT program.*

The most frequently cited factor that participants felt most constrained was resistance from senior colleagues of introducing new ideas and practices who had not received this type of training. Therefore, in terms of '***Results***', the findings suggests that the FTUT program had very insignificant role to make any changes to their respective organizations in terms of quality, efficiency, morale and increased client satisfaction. In order to make the training and investment successful, a triangular approach is needed to adopt- (a) modernizing the FTUT to satisfy professional standards and make it compulsory for all new recruits, (b) introducing CPD in all university campuses to involve senior faculties to create a collegial atmosphere of mentoring the young colleagues, and (c) introducing favourable policy support for professional growth such as formulating professional performance indicators (PPI), allocation of sufficient fund, monitoring activities of all faculties, and introducing recognition and reward-punishment system.

Conclusion

The overall impact of the FTUT was high for the trained teachers. However, there were some contradictions between the quantitative and qualitative responses. The discrepancy in the conclusions of quantitative and qualitative data can possibly be explained by the nature of the data. In terms of quantitative data, respondents generally answer questions without thinking critically, and there is limited scope for cross-checking data. On the other hand, qualitative data discovers variation and interesting issues which emerge from interviewee responses to specific questions can immediately be probed to obtain further insight (Bryman and Bell 2003). In this regard, qualitative data is more reliable. While the quantitative data showed highest score on ***Results*** (93.75%), suggests that the training had a positive impact on their respective universities to a great extent, qualitative data showed contradictory responses on it. Participants experienced constraints, such as resistance from senior colleagues who had not received FTUT, lack of financial support from respective department/ universities. In quantitative data, '***Learning***' another level of the model, carries the lowest score (82.55%) resembles with the qualitative responses, which suggests that the resulting increase in

learning (in terms of knowledge, skills and attitudes) was low. The mismatch between theory and practice, inability to practice classes with real students, and lack of variation of trainers etc. might be the reasons for the lower extent of '***Learning***'. In order to achieve better impact of the FTUT, combined efforts of university governance, senior faculties and the young trainees are equally required.

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References

Akerlind, G. 2007. Constraints on academics' potential for developing as a teacher. *Studies in Higher Education, 32*(1):21–37.

Bryman, A. and E. Bell. 2003. *Business Research Methods*. New York: Oxford University Press.

Chism, N. and B. Szabo. 1997. How faculty development programmes evaluate their services. *Journal of Faculty, Programme and Organisational Development, 15*(2):55–62.

Chng, H.H. and A. S. Swee Kit. 2013. Mentorship in teacher training: A preliminary review of a professional development programme for tertiary teachers in Singapore. In E. Simon & G. Pleschova (Eds.), *Teacher Development in Higher Education Existing Programmes, Program Impact, and Future Trends* (pp. 234–256). London: Routledge.

Entwistle, N. and P. Walker. 2000. Strategic alertness and expanded awareness within sophisticated conceptions of teaching. *Instructional Science, 28*: 335–361.

Gibbs, G. and M. Coffey. 2004. The impact of training of university teachers on their teaching skills, their approach to teaching and the approach to learning of their students. *Active Learning in Higher Education, 5*(87):87–100.

Guskey, T. 2002. Does it make a difference? Evaluating professional development. *Educational Leadership, 59*(6):45–51.

Hanbury, A., M, Prosser and M. Rickinson. 2008. The differential impact of UK accredited teaching development programmes on academics' approaches to teaching. *Studies in Higher Education, 33*(4): 469–483.

Islam, M.A. 2012. An analysis on performance and achievements of foundation training for university teachers in Bangladesh. *Academic Research International, 2*(2):292–302.

Kember, D. and K. Kwan. 2000. Lecturers' approaches to teaching and their relationship to conceptions of good teaching. *Instructional Science, 28*:469–490.

Kirkpatrick, D. L. 1998. *Evaluating training programmes: The four levels* (2nd ed.). San Francisco: Berrett-Koehler.

Knapper, C. 2003. Editorial. *International Journal for Academic Development, 8*(1):5–9.

Knapper, C. 2013. The impact of training in teacher effectiveness. In E. Simon & G. Pleschova (Eds.), *Teacher development in higher education:*

Existing programmes, program impact and future trends (pp. 53–68). London: Routledge.

Norton, A., J. Sonnemann and I. Cherastidtham, I. 2013. *Taking university teaching seriously*. Grattan Institute Report No. 2013-8. Sydney: Gratton Institute.

Parsons, D., I. Hill, J. Holland and D. Willis. 2012. *Impact of teacher development programmes in higher education*. HEA Research Series (September). UK: Higher Education Academy.

Postareff, L. and S. Lindblom-Ylanne. 2008. Variation in teacher's descriptions of teaching: Broadening the understanding of teaching in higher education. *Learning and Instruction*, *18*: 109–120.

Postareff, L., S. Lindblom-Ylanne and A. Nevgi. 2007. The effect of pedagogical training on teaching in higher education. *Teaching and Teacher Education*, *23*: 557–571.

Rahman, T., S. Nakata, Y. Nagashima, M.M. Rahman, U. Sharma and M.A. Rahman. 2019. Skills and Innovation for Growth: Bangladesh Tertiary Education Sector Review. The World Bank.

Roxa, T. and K. Martensson. 2008. Strategic educational development: A national Swedish initiative to support change in higher education. *Higher Education Research & Development*, *27*(2): 155–168.

Southwell, D. and W. Morgan. 2010. Leadership and the impact of academic staff development and leadership development on student learning outcomes in higher education: A review of the literature. Canberra: ALTC.

Steinert, Y., K. Mann, A. Centeno, D. Dolmans, J. Spencer, M. Gelula and D. Prideaux. 2006. A systematic review of the faculty development initiatives designed to improve teaching effectiveness in medical education. BEME Guide 8. *Medical Teacher*, *28*(6): 497–526.

Stes, A., L. Coertjens and P. Van Petegem. 2010. Instructional development for teachers in higher education: Impact on teaching approach. *Higher Education*, *60*(2): 187–204.