Impact of In-Service Teacher Training on Classroom Teaching

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Abstract: *This study examined the impact of in-service teacher training on classroom teaching of secondary teachers in the region of Imphal, Manipur. A self-made questionnaire was the tool used for data collection from 287 secondary teachers of government secondary schools spread over two districts. The findings that emerged from the data analysis perceived the programme as useful and of importance to the teachers. The training which the teachers received positively affected different phases of classroom teaching. Hypothesis testing was done through Linear Regression analysis which shows that there is significant relationship between in-service teacher training and the different phases (pre-active, interactive and post active phases) of classroom teaching. The study recommends that in-service training is an essential part of a teachers' professional growth and teachers on the other should strive to make their classroom transaction more significant in all the phase of teaching.*

Keywords: In-service training, Interactive, Pre-active and post -active phase of teaching.

INTRODUCTION

Education is an essential component for bringing about desired changes in our nation. The growth of a nation depends greatly on our educational system. In this educational system, teachers play a major role as a transfor-mational agent responsible for bringing positive changes in the minds of our students both inside the four walls of the classroom as well as outside.

Education is a continuous process that requires a qualified teacher as an essential component to achieve the goals of education. It is also a known fact that the nature of teaching profession requires a teacher to engage in continuous professional development programmes. One of the important functions of a teacher is to motivate their students to study hard, and to encourage them for lifelong learning. This process leads to build appropriate human resources for the nation. It is necessary for a teacher to show interest and enthusiasm for continuing professional development. Continuous professional development assesses teachers to keep abreast of changes in the educational process. Thus, the development of curriculum and teaching strategies through the advancement of technology is the need of the hour for teachers.

Education is a dynamic process which continually evolves due to pedagogical advancements, change in demographics of students and integration of new educational technologies. In this scenario, teachers play a pivotal role as a facilitator of student learning and their academic achievements.

Teaching is an integral part of the educational process and includes a systematic usage of multiple actions intended to bring about learning. Teaching involves imparting knowledge, developing understanding and skills. Thus, the sole element of teaching is the interaction between the teacher and the students which helps the students to achieve their goals.

Teaching comprises the following phases:

Pre-active phase of teaching: In this phase of teaching, it will include all the activities which a teacher prepares before classroom teaching. It essentially includes the planning of a lesson. Planning includes identifying the objectives, the strategies and the methods to be adopted, use of teaching aids and so on. This is an important phase of teaching as it sets the stage for effective teaching in order to impart learning experiences to the students, comprehension and retention of content. In recent years, the importance of teacher training or continuous professional development has gained recognition and momentum.The amount of professional

development undertaken by teachers is significantly associated with a positive classroom disciplinary climate (Creating Effective Teaching and Learning Environments: Ainley and Carstens (2018) shows that the amount of professional development that a teacher engages was also significantly associated with greater self-efficacy of the teacher. Teachers' increased self-efficacy results in increased teaching effectiveness, instructional practises and for student's academic achievement (Klassen et al, 2011).

Inter-active phase of teaching: In this phase of teaching, the pupils are provided verbal stimulations of various kind, makes explanations, asks questions, listens to the responses of students besides providing guidance.

Post -active phase /Outcome of teaching: It is the phase of evaluation and follow-up of the pre-active and inter-active phases of teaching**.**This study focuses on the impact of the involvement of teachers in in-service teacher training programmes on the various phases of teaching. Exposure to innovative ideas and skills enhances teachers' ability to design effective student learning methods.

Significance of the study: The training for in-service teachers enhances the effectiveness of teaching in the classroom. The training related to in-service teachers not only helps in identifying educational challenges but also helps in boosting professional development. This study also suggests and recommends effective teaching strategies.

OBJECTIVES:

i. The present paper tries to study the impact of in-service teacher training on the various components of pre-active phase of classroom teaching.

ii. The present paper tries to study the impact of in-service teacher training on the various components of interactive-active phase of classroom teaching.

iii. The present paper tries to study the impact of in-service teacher training on the various components of post-active phase /Outcome of classroom teaching.

Hypothesis:

1.The themes /topics in the teaching process of in-service training have no significant impact on that of the pre-active phase of classroom teaching of Teachers in Imphal east and Imphal West district of Manipur.

2.The themes /topics in the teaching process of in-service training have no significant impact on that of the inter-active phase of classroom teaching of Teachers in Imphal east and Imphal West district of Manipur.

3.The themes /topics in the teaching process of in-service training have no significant impact on that of the post-active phase /Outcome of classroom teaching of Teachers in Imphal east and Imphal West district of Manipur.

REVIEW OF LITERATURE

The pre-active phase of teaching as described by Hunter (1994), educational theorist originates from her work in the field of education, particularly from her book ,Mastery Teaching. In this book,Madeline who was a prominent figure in educational theory and practice, elaborates on the significance of the pre-active phase of teaching as the pillar of any effective teaching. She also emphasized on the importance of thorough planning and preparation before the start of a classroom interaction with the students. This concept has since become greatly recognised and implemented in various teacher training programmes as a fundamental component of classroom instruction.

According to educational psychologists Marzano (2007) in his book "The Art and Science of Teaching", the pre-active phase of teaching is the foundation of a successful teaching and learning experience.

The concept of In-service teacher training has been widely discussed and explained by many educationists over the years.Schon (2008) mentioned in his seminal work, "The Reflective Practitioner," that in-service teacher training will include all the professional development activities provided to the teacher after they have entered the teaching profession. The purpose of these training programmesare to enhance the knowledge, skills and instructional practices of the teachers in order to improve the learning outcomes of the students.

Further, Darling- Hammond (1997), mentioned in her book "The Right to Learn: A Blueprint for Creating Schools that Work" the significance of in-service teacher training in enhancing teacher effectiveness. She emphasised on a comprehensive and sustainable professional development programme for a teacher's professional growth. Contemporary educationists such as Guskey (2000) in his book "Evaluating Professional Development" focuses on the evidence-based practises and continuous evaluation of training programmes.

Theoretical framework : Bandura's social cognitive theory and its relevance to teacher efficacy. Bandura's social cognitive theory provides an important theoretical framework for understanding the relationship between teacher efficacy and the impact of in-service teacher training on the pre-active phase of teaching. The social cognitive theory of Bandura (1977) states that an individual's beliefs in their own capabilities i.e self-efficacy play a great role in determining their behaviour and achievements

Tschannen and Hoy (2001) also emphasised on the concept of teacher's self- efficacy and its impact on instructional practise inside the classroom.Furthermore, Garet et al. (2001) elucidated the positive impact of in-service teacher training on teacher efficacy and instructional practises.The impact of teacher training brings about a positive change on the performance of a teacher in a classroom (Samupwa,2008). Boekaerts et al. (1999) view that a trained teacher is more effective and can help students more strategically. According to Sim (2011), the main purpose of in-service teacher training programme is to enable effective classroom teaching.

METHODOLOGY

A qualitative survey was used to study the impact of in-service teacher training on the pre-active phase of classroom teaching. A sample of 287 graduate teachers from Imphal East and Imphal West districts of the state were selected through convenience sampling technique. Convenience sampling technique involves selection of teacher participants on the basis of their accessibility and availability. All 287 secondary teachers of Imphal East and West districts of Manipur were available and willing to participate were included in this research study.

Data Collection: Data were collected based on a self-made and standardized questionnaire from all the 287 secondary teachers of Imphal East and Imphal West districts. The questionnaire was used to gather information on the teachers' perceptions on the impact of in-service teacher training on their pre-active phase of teaching. The questionnaires were

distributed to the secondary teachers during teacher training programmes and scheduled meetings at their schools. The teacher participants were provided with instructions on how to give their responses. They were also given assurance that the responses were only for research purposes.

Data Analysis techniques: The data gathered was analysed using SPSS (Statistical Package for Social Sciences) to further explain the findings of the study. Inferential statistics such as regression analysis was employed to examine the impact of how different topics covered in the in-service teacher training to predict variations on the pre-active phase of teaching among secondary teachers of Imphal East and Imphal West teachers. The Reliability of the questionnaire has been tested through SPSS using Cronbach's Alpha Test and was found to be high internal consistency with **á=0.845**. The Validity of the questionnaire has been tested through SPSS using Pearson Co-relation (r) and was found to be valid with the scores for 25 items to greater than **0.3**, thus making the items valid. Regression analysis allows us to study the relationship between an independent variable (themes/topics in the training programme) and an independent variable (pre-active teaching phase).

RESULTS

The following table shows the descriptive analysis of the respondents of the present study:

Table 1 Descriptive analysis of the respondents

District		
District	**Frequency**	**Percentage**
Imphal East	213	73.7
Imphal West	76	26.3
	Rural/Urban	
Area	**Frequency**	**Percentage**
Rural	182	62.9
Urban	107	37.1
	Gender of teachers	
Gender	**Frequency**	**Percentage**
Male	64	22.2
Female	225	77.8
	Teaching experience	
1-5 years	33	11.4
5-10 years	90	31.2
10-15 years	79	27.3
10-15 years	79	27.3
Above 15 years	77	26.6
No response	10	3.5
	Hours of study	
Hours of study	**Frequency**	**Percentage**
(0.30 – 1) hr.	21	7.3
(1 - 2) hrs.	165	57.1
(2 – 3) hrs.	47	16.2
3 hrs.& above	44	15.2
No response	12	4.2

The above table shows that the total number of participants (teachers) i.e. 289 out of which 213 (73.7%) are from Imphal East district and 76 (26.3%) are from Imphal West district. It further demonstrates that 182 (62.9%) are from rural areas and 107(37.1%) are from rural areas. Further, it has been found that 64 (22.2%) are male teachers and 225 (77.8%) are female teachers. In the light of this table, the teaching experience of the participants can be grouped into 5 groups and the highest percentage belong to the group (5 to 10 years) with 90 teachers (31%). It would be right to mention that maximum number of participants have a teaching experience of 5 to 10 years. The table further shows that maximum number of teachers spend 1 to 2 hours updating themselves on their own subject and other current affairs.

The following tables (2i & 2ii) shows the **regression analyses** of the independent variables against the dependent variables:

Table 2. (i) Regression analyses (index of Variables)

Sl. No	Independent Variable (IV)	Index	Dependent Variable (V)	Index
2.A.	Themes of in-service training	IV 1	Pre-active teaching	DV1
2.B.	Themes of in-service training	IV 2	Inter-active teaching	DV2
2.C.	Pre-active (learning)	IV 3	Inter-active Learning	DV3
2.D.	Total interactive learning	IV 4	Total interactive behaviour	DV4
2.E.	Total training	IV 5	training Outcome	DV5
2.F.	Pre-active (learning)	IV 6	Pre-active(Beaviour)	DV6
2.G.	Total Preactive	IV 7	Total Interactive	DV7

Table 2. (ii) Regression analyses

Sl	IV	DV	β	R^2	F	p-value	Result
2A	IV 1	DV1	0.204	0.042	12.513	0.001	α*
2B	IV 2	DV2	0.132	0.017	5.105	0.025	α*
2C	IV 3	DV3	0.657	0.432	218.007	<0.001	α*
2D	IV 4	DV4	0.429	0.184	64.725	0.001	α*
2E	IV 5	DV5	0.194	0.038	11.234	0.001	α*
2F	IV 6	DV6	0.546	0.298	121.738	<0.001	α*
2G	IV 7	DV7	0.535	0.287	115.333	<0.001	α*

*Note:**á***(indicates that there is impact of Independent var iable (IV) on Dependent Variable (DV))*

The above table 2(ii) shows the corresponding values of **â**, **R^2, F, p-value** and their corresponding result which shows that they are all significant. This shows that there is impact of the Independent variables (IV)on the Dependent variables (DV) in all the cases from 2A to 2G as indicated in the above table.

2.A. Relationship between the themes of the teaching process of in-service training(IV1) and the pre-active phase classroom teaching(DV1):*Here,*F=12.513 with p value=0.001 indicates that IV1 has significant role in shaping the DV1. R^2=0.042 depicts that 4.2% change in DV1 as a result of IV1. **â** value is small, so impact may not be substantial.F-value is moderately high suggesting significance. p-value (0.001) is less than 0.05, indicating a statistical significance.

2.B. Relationship between the themes of theteaching process of in-service training (IV2) and the inter-active phase of classroom teaching (DV2): *Here,*F=5.105 with a p value =0.025, this indicates that IV2 plays a significant role on DV2., R^2=0.017 depicts that 1.7% change in DV2 as a result of IV2. **â** value is small, so impact may not be substantial..F-value is moderately high suggesting significance.p-value (0.025) is less than 0.05, indicating a statistical significance.

2.C. Relationship between the Pre-active learning (IV3) and the Inter-active Learning (DV3):F=218.007 with p value=<0.001, this indicates that IV3 plays a significant role

on DV3.R^2=0.432 depicts that 43.2 % change in the DV3 as a result of IV3.**â** valueindicates a relatively strong positive relationship betweenIV3 and DV3.(F) = 218.007 assesses the overall significance of the regression model.p-value (0.001) is very less than 0.05, indicating a statistical significance.

2.D. Relationship between Inter-active Learning (IV4)and total Interactive behaviour (DV4):F=64.725 with p value=0.00indicates that IV4 plays asifnificant role in shaping DV4. R^2=0.184 depicts that an 18.4% change in DV4 is a result from IV4.**â** value0.429 suggests a moderate to strong association and indicates a moderately substantial impact. F-statistic (F) = 64.725 assesses the overall significance of the regression model.p-value of 0.00 indicates that the results are highly statistically significant.

2.E. Relationship between Total training(IV5) and training Outcome(DV5):*Here,*F=11.234 with p value=0.001indicates that IV5 has significant role in shaping the DV5. R^2=0.038 depicts that 3.8% change in DV5 as a result of IV5. **â** value is small, so impact may not be substantial.F-value is moderately high suggesting significance. p-value (0.001) is less than 0.05, indicating a statistical significance.

2.F. Relationship between the Pre-active learning(IV6) and the Pre-active Behaviour (DV6):*Here,*F=121.738with p value=<0.001indicates that IV6 has significant role in shaping the DV6. R^2=0.298 depicts that 29% change in DV6 as a result of IV6. **â** value indicates a moderate to strong positive relationship between IV6 and DV6.F-value is relatively high suggesting significance. p-value (0.001) is less than 0.05, indicating a statistical significance.

2.G. Relationship between Pre-active Learning(IV7) and Interactive Behaviour(DV7):*Here,*F=115.333with p value=<0.001indicates that IV7 has significant role in shaping the DV7. R^2=0.287 depicts that 28.7% change in DV7as a result of IV7. **â** value indicates a moderate to strong positive relationship between IV7 and DV7.F-value is relatively high suggesting significance. p-value (0.001) is less than 0.05, indicating a statistical significance.

CONCLUSION

The results of the investigation on the relationship of in-service teacher training with the different phases of classroom teaching shows that the training helps in enhancing the confidence of teachers in making effective lesson plans and applying new instructional methods. The analysis of the study demonstrates a statistically significant connection between the themes/topics covered in the training progra-0mmes and the improvements in the different phases of teaching, thus highlighting the essential role of ongoing in-service teacher training provided. Use of technology in making lesson plan also further signifies that there is a change in the present education system as compared to the earlier education system.

The present study also shows that there is significant relationship between the independent variables and their corresponding dependent variables. Their significance has already been highlighted in Table 2(ii).

Further, longitudinal studies on in-service teacher training programmes can be helpful in identifying the gaps required for the professional development of the teacher participants. If these gaps are addressed, then the understanding of the impact of training initiatives on the improvements in classroom teaching practises and student learning outcomes will considerably increase. Overall, this present study advocates for a continued emphasis on designing and executing in-service teacher training programmes effectively. This type of faculty development programmeare crucial for preparing teachers of the 21st century who will excel in this continually evolving educational scenario.

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