

Effectiveness and Efficiency of the Training Programmes A Study with Special Reference to Primary School Teachers

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***Abstract:** The present study has attempted to evaluate the effectiveness of the training programmes conducted by the Government of Karnataka. The study has made an attempt to identify the effectiveness of the elemental variables of these training programmes like timing, duration, content, methodology, infrastructural facilities, trainers' expertise and communicative efficiency in terms of: the perceived utility of the training programmes from the viewpoint of the trainee teachers on the one hand; and, the actual adoption and application of the same in their post-training teaching sessions on the other. Multi-level sampling technique was employed to choose the sample for the study. The central finding of the study was that a dominant majority rated these programmes very highly. The post-training adoption of the new and upgraded skill-sets was also found to be quite high. However, the study found that the trained teachers also felt that there was a pressing need for redesigning of the content and methodology. Further, the levels of expertise of the trainers and their communication skills were found to be wanting.*

***Key words:** Teacher, Training, Effectiveness, Competency.*

1. INTRODUCTION

Teachers in primary education act as the centrifugal force that attracts the pupils towards the content, processes and methods of teaching that design and shape their destiny. Obviously, the teacher can attract, retain and transform the pupil only when the underlying elements involved in the interactive process are robust. The precondition for this is that the teachers possess, update and apply the necessary competencies regularly. For this to be true, the teachers need to remain competent enough on a continuing basis to transform the students and when the quality concerns in school

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education are taken as the top priority Yash Aggarwal (2000). This evidently requires: modifications in teachers' training; improvements in infrastructural and other facilities provided in schools; teachers' levels of motivation; and, a change in the methodology of teaching to make it simultaneously striking and engaging to the students. For a wholesome system of primary education to evolve and thrive, the society requires the teachers who are loved by the children, appreciated by the community and liked by their peers. Imparting the requisite training to the in-service teachers is the key to ensure that the necessary competencies are driven into them by both pre-service training and in-service training Rao, (2007).

The extant educational system prevailing at any given point of time in our country – indeed, in any country - cannot be expected to be capable to inculcate all the requisite skills in the students as demanded by the evolving socio-economic, cultural and political atmospherics at any particular point of time without suitable periodic intervention. There would be an obvious need for the state – which acts as the manager of the educational endeavors of the society at the primary level in particular – to put in place a dynamic mechanism that identifies the training needs in respect of the in-service teachers and designs and implements the training process in the most effective and efficient manner. In fact, the ideal model of imparting primary level education has to take the form of Individualized learning models (ILMs) Ovando, Martha N. (1993). The ILM format is based on the proposition that each individual has different requirements at a given time. Hence the design of in-service training programmes must use well-defined learning modules that assure high degree of flexibility and provide a means for accommodating the needs of experienced teachers.

In the state of Karnataka, the Department of State Educational Research and Training (DSERT), the academic wing of the department of public instruction, Government of Karnataka, is mandated with the responsibility of ensuring the quality of education is maintained at the levels comparable with the highest global standards at any given point of time. The DSERT has been designing and implementing various training programmes for the primary school teachers which are focused upon core teaching-learning skills, value based education and life-skills, among others.

At the elementary education level, the DSERT formulates plans and coordinates the design and implementation of the various primary teacher training programs throughout the state of Karnataka. At the district level, the structures of DIETs and at the Block level, Block Resource Centers (BRCs) and at the cluster level, Cluster Resource Centers (CRCs) conduct the various training programs for the teachers.

Teacher Education focusing upon equipping the teachers with the necessary competencies may be broadly divided into two components - the first is the Pre-service education and training and the second is the In-service education and training. While the pre-service part focuses upon the core-level, relatively enduring competencies, the in-service segment focuses upon adding, modifying and fine-tuning of the teacher-competencies on an ongoing basis.

The state of Karnataka has been a pioneer in institutionalizing in-service training. The objectives of in-service training programmes are: to provide support for the continued professional development of teachers after they join service; to strengthen the knowledge base of the teachers keeping in view the developments in the field; to acquaint them and help them use many child-centric approaches for improved curricular transaction; to provide inputs for class-room transactions and also aid in the process of developing various competencies that help the teachers to become facilitators and guides; and to help teachers play multiple roles effectively and efficiently.

1.1. Need for the Study

The content, frequency and the expertise employed in the training programmes are quite comprehensive at the design level, very little is known about their delivered results in terms of the actual enhancement of the teacher competencies and their adoption by the trainee teachers in the process of educating the students. Present research endeavor is an effort in chronicling the effectiveness and efficiency of select set of the training programmes that have been undergone by the teachers in the state of Karnataka over the recent past.

1.2. Objectives of the Study

This study aims at investigating how effective the current in-service training programmes are in totality and the elemental variables of the training programmes like timing, duration, content, methodology, infrastructural facilities, trainers' expertise and communicative efficiency in terms of their perceived utility.

1.3. Scope of the Study

The outcome of this study is likely to provide an insights in to usefulness of existing in service training programmes and give stimulus for curriculum reformation of in - service teacher training programmes.

2. MATERIALS AND METHODS

Data was collected by administering a structured questionnaire to 150 primary school teachers across four districts of Karnataka namely, Davanagere, Chitradurga, Shimoga and Tumkur. The validity and reliability of the questionnaire was tested by pilot study. Based on the pilot study some questions were reframed, refined, and re-categorized. The questionnaire included queries that were dichotomous, multiple-choice, rating and ranking scale natured. Stratified sampling was used to select the schools and simple random sampling to select the individual respondents.

Questions on socio-economic variables were used in the first part of the questionnaire and the second part contained questions related to number of training programmes conducted and attended, scheduling of the training programmes,

evaluation of these training programmes for the elemental variables like, timing, duration, content, teaching aids used, methodology, expertise of the trainer, communication of the trainer, infrastructural facilities. Each one of these evaluated by the teachers on the five point Likert scale Balcioglu&Kocaman, (2013). Further, the data was gathered on the usefulness of trainings, their impact in terms of actual competency enhancement as perceived by the teachers and the actual adoption of the newly gained competencies in the teaching process. Hamdan, Ghafar and Hwa Li (2009), used similar scales of measurement to identify the relationships between teaching competency and gender, specializations, and academic achievement in their research using t test and anova.

Data was analyzed by using SPSS platform for various tests. The independent variables that had a significant impact on the dependent variables of interest for the present study have been reported and other variables have been ignored for purpose of reduction of noise in reporting and ensuring reporting clarity.

3. RESULTS AND DISCUSSIONS

3.1. Influence of Gender on levels of Perceived Satisfaction

One of the important aspects that the researcher attempted to investigate was the influence of gender on the levels of perceived satisfaction experienced by the teachers regarding the outcome of the training programmes that they underwent. The independent two-sample t-test was employed for the purpose of testing whether gender influence the perceived level of satisfaction among the trainees. The null hypothesis that was formulated for empirically testing this aspect is as stated below:

Ho: There is no significant relationship between the gender of the trainee teachers and the levels of perceived satisfaction regarding the outcome of the training programmes.

The results of the t-test conducted on the data with gender as the independent variable and the perceived level of satisfaction as the dependent variable are reported in the tables 1 and 2. It might be clearly seen that there is an optical difference in the levels of perceived satisfaction between the male teachers with a mean value of 4.12 and female teachers at 4.02. However the difference is not statistically significant as the 'p' value at the chosen level of significance of 5% is as high as 0.567 when equal variances are assumed. The 'p' value is almost the same at 0.566 under the assumption of inequality of variances. The inference is that gender does not influence the perceived levels of satisfaction among the trainee teachers. Our findings thus, are in disagreement with the findings of a similar study carried out in Balcioglu&Kocaman, (2013).

3.2. Perceived Levels of Satisfaction Regarding Elemental Variables

Any intervention in the form of training for the purpose of enhancing the competency levels of the human resources requires a judicious mix of a host of factors, which *inter*

Table 1
Group Statistics

Gender	N	Mean	S.D	Std. Error
Male	78	4.12	1.00	0.12
Female	72	4.02	0.98	0.13

Source: Primary data

Table 2
Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
	F	Sig.	T	Df	Sig. (2- tailed)	Mean Diff	Std. Error	Lower	Upper
Satisfaction	1.045	.390	0.575	126	0.567	0.100	.176	-.246	.449
Equal Variances assumed									
Equal Variances not assumed			0.575	124	0.566	0.100	.176	-.246	.448

Source: Primary data

alia, include: timing of such programmes within the academic calendar; the duration for which such programmes are conducted; the relevance and materiality of the content; expertise of the trainers; their communicative ability; use of methodology in conducting training; and, infrastructural support at the venues of the training. The researcher was naturally inclined to investigate into the effectiveness of each one of these elemental factors as felt by the trainee teachers. This was extremely significant for the fundamental purpose of the present study as it would help the researcher to identify, in a pinpointed manner, the specific dimensions of the training programmes that needed to be fine-tuned in order to enhance their effectiveness, efficiency and the final outcome in the form of enhanced and adopted teacher competencies.

The rudimentary descriptive statistics in the form of mean, standard deviation and range of the ratings assigned by the trainee teachers for each of the elemental factors are presented in the table.3.

At the surface level it is evident that majority of the teachers are satisfied with the training programmes. Each one of the element is rated highly by the trainee teachers with overall mean scores being in excess of 4 for all the elemental factors on a scale of 5. The dispersion measures of range and standard deviations were slightly on the higher side in respect of 'content', 'methodology' and 'infrastructural facilities'.

Table 3
Descriptives

<i>Sl.no</i>	<i>Variable</i>	<i>Mean</i>	<i>SD</i>	<i>Range</i>
1	Timings	4.484	0.547	2
2	Duration	4.484	0.546	2
3	Content	4.343	0.692	2
4	Use of teaching aids	4.351	0.584	2
5	Methodology	4.359	0.718	4
6	Expertise of the trainer	4.375	0.652	2
7	Communicative efficiency of the trainer	4.250	0.587	3
8	Infrastructural facilities	4.343	0.747	4

Source: Primary data

3.3. Packaging of Training Programmes and their Perceived Usefulness

Competency management of the teachers pivots around the training programmes. The elements of training programmes like the timing, content, expertise of trainers, their communicative abilities, methodology employed, infrastructural facilities at the training venues, all have the potential to influence the effectiveness of training endeavors and consequently, they determine their usefulness as perceived by the trainee teachers. In turn, the perceived levels of satisfaction among the teachers will determine the material gains in terms of enhancement of competencies and their actual adoption in teaching.

One way anova tests were conducted in order to establish the possible presence and magnitude of influence of the elemental variables of training programmes on the perceived levels of their usefulness. Significance level of 10% was employed for this purpose. Four elemental factors – content of the training programmes, methodology employed, communicative ability of the trainers and the infrastructural facilities provided at the training venues – were found to be imparting a significant influence on the perceived levels of usefulness of the training programmes. The results are summarized and presented in the table. 4. Present findings are similar to Kayani et.al. (2011), majority of the teachers are satisfied with the training program. There is a strong correlation between teaching efficiency and training and teachers beheld that in-service teacher training is essential for their professional progress on one hand and in contrast with Norton et al. (2005), there is no significant differences in teaching beliefs and intents between teachers who had attended pedagogical programs and teachers who had not attended training programmes on the other hand.

3.4. Elements of training and enhancement of Competency:

The next aspect investigated into was the interaction between perceived levels of usefulness of training elements and the perceived gains in terms increased competencies. The results of one way anova at 10% significance level in table no.5 depict that the

Table 4
Influence of Elements of Training Package on Perceived Usefulness

<i>Variable</i>		<i>Sum of Squares</i>	<i>Mean Square</i>	<i>F</i>	<i>Sig.</i>
Content	Between Groups	1.409	.704	2.745	.068
	Within Groups	32.083	.257		
Methodology	Between Groups	2.298	.575	2.266	.066
	Within Groups	31.194	.254		
Trainer Communication	Between Groups	1.970	.657	2.583	.056
	Within Groups	31.522	.254		
Infrastructural facilities	Between Groups	3.429	.857	3.507	.010
	Within Groups	30.063	.244		

Source: Primary data

elemental values like content of the training programme, use of teaching aids, methodology adopted and trainers communication have a significant interaction on the perceived increase of the competencies. Significance value stood at 0.002 and 0.003 which implies that appropriate intervention is needed in designing the content and the teaching aids used during the training programme, methodology and trainer's communication Table no: 05: Influence of elements of training on the perceived increase of competencies.

3.5. Perceptions about Elements of Training Programmes and Adoption of the Newly Gained Competencies

The training is fruitful only when the newly gained competencies in the training programmes are actually adopted by the teachers. In order to establish the specific independent variables in the training programme that had a primary influence on the actual adoption of the newly gained competencies in their teaching. A third anova test was conducted. The results of anovatest in table no.6 show that there is a significant impact of the elemental values like, expertise of the Trainer, communication of the trainer and infrastructural facilities provided during the training in adoption of the methodologies learnt during the training. Expertise of the trainer along with his effective communication will motivate the teachers to adopt the new competencies. Our findings in agreement with Coffey and Gibbs (2000) and Prosser & Trigwell, (1999)

Table 5
Influence of Elements of Training on the Perceived Increase of Competencies

<i>Variable</i>		<i>Sum of Squares</i>	<i>Mean Square</i>	<i>F</i>	<i>Sig.</i>
Content	Between Groups	2.736	1.368	6.390	.002
	Within Groups	26.756	.214		
Use of teaching aids	Between Groups	2.553	1.277	5.923	.003
	Within Groups	26.939	.216		
Methodology	Between Groups	1.027	4.979	.001	.066
	Within Groups	.206			
Trainer Communication	Between Groups	1.719	.573	2.559	.058
	Within Groups	27.773	.224		

Source: Primary data

Table 6
Results of ANOVA on Adoption of Methodology Learnt in Training

<i>Variable</i>		<i>Sum of Squares</i>	<i>Mean Square</i>	<i>F</i>	<i>Sig.</i>
Expertise of the Trainer	Between Groups	2.381	.595	2.293	.063
	Within Groups	31.924	.260		
Trainer Communication	Between Groups	9.260	3.087	15.282	.000
	Within Groups	25.045	.202		
Infrastructural facilities	Between Groups	6.612	1.653	7.342	.000
	Within Groups	27.693	.225		

Source: Primary data

CONCLUSION

It is evident from the present study that irrespective of the gender, almost all teachers perceive a high level of overall satisfaction about the training programmes that they underwent. Teachers rate the training programmes very highly. Elemental values like, Content of the training programmes, methodology employed communicative ability of the trainers and the infrastructural facilities provided at the training venues need intervention by the competency management system consisting of various advisory and regulatory bodies of the department of primary education of Karnataka. There appears to be a lot of scope for improving these particular elements. It was found that a majority of the teachers eventually adopted the newly gained competencies and appropriately modified their post training teaching methodologies. Along the lines of the present research effort, a formal state sponsored continuous evaluation mechanism of the various in teacher training programmes may be instituted.

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