

Effectiveness of In-Service Training: A Study of Secondary School Teachers of Balasore District, Odisha



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ABSTRACT: In-service teacher education and training are the keys to changing the perception of teaching, which used to be student-oriented inside the classroom. In earlier days, it was more about instilling a value system in the children. Therefore, as they grow older, they become independent and can be able to nourish their own life by their own effort. However, because globalization has resulted in cultural mixing, we have begun to accept more foreign cultures and their teaching methodologies. With this intention in service, teacher training has been included as part of the teachers' development program, whereby teachers are supposed to attend short-term courses and other faculty development programs in order to increase their existing knowledge. For this purpose, there are sufficient provisions with regard to the tying up of schools with specific organizations, both public and private, to train teachers. With this background, the researcher attempted to examine the effectiveness of in-service training programs from the teachers' point of view based on eighty-eight secondary school teachers of the Balasore municipality area of the Balasore district of Odisha.

KEY WORDS: Training, Teachers, Secondary school, Effectiveness

BACKGROUND OF THE STUDY

Continuous teacher development training programs are a key problem for any country seeking to improve capacity building. As a result, it is essential that teacher development training programs be integrated into the academic curriculum. It will make teachers more informed about the importance of participating in continuous professional development. Teachers will be more devoted to their work as a result of such training programs (Collinson, 2001). It also aids teachers in understanding how these developmental programs might assist them in building their careers. Teachers have a significant role in developing and employing the changes in the educational sector that align with the National Philosophy of Educational goals (Dent, H.C. (1977)). The execution of short-term programs to orient newly joined faculty members in any school or to improve the skill sets of existing teachers are the welcoming steps of the government.

It is well acknowledged that a teacher's method of imparting information to students has a direct influence on student achievement (Ali, 2004). Teachers have the potential to mold learners and help them express their inner experience and intellect. Teachers are the builders, makers, and constructors of a community and nation. The teacher holds a unique position in society because he or she is the only one who can ensure the steady and step-by-step transmission of intellectual heritage from one generation to the next (Carrington, 2002). The teacher's responsibility does not end with the learners in the classroom. He/she also has societal and national responsibilities and obligations (Stoops, 1981). In-service training can help teachers to become more professional so that they can help the school environment accomplish its objectives. The training promotes flexibility in the work environment, which helps teachers become accustomed to changing circumstances. It's also a form of encouragement for instructors to increase their creativity in the classroom (Asaya, 1991). It also helps instructors to expand their knowledge and teaching skills in order to increase their classroom effectiveness. In this sense, the training program has been a driving force behind much of the progress made in the fields of education and learning. Teachers must keep up with the newest ideas, concepts, and expertise in their disciplines (Uysal, 2012). The training has two basic components: meeting the educational needs of students and guaranteeing the personal and professional growth of academic staff (Ramsey, (2000)). The study is an endeavor to acknowledge the perception of teachers about the effectiveness of in-service teachers' training in improving the standard of teaching in the classroom.

RATIONALE OF THE STUDY

A training program in an organization is a process by which employees are given the necessary information to fulfill their obligations in their current position and to take on more difficult tasks in the future. Organizations are undergoing numerous changes in response to economic, social, and technological demands. Consequently, training programs play a significant role in overcoming these issues and meeting the needs of organizations (Black, 2003). In a similar manner, training programs are also as vital in the education

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industry as they are in other industries. To increase the standard of education in any country, there is a pressing need for education and training, particularly for teachers. As a result, in-service training or a staff development program for teachers is important to implement educational reform. It also acts as a link between new aspirants and experienced teachers, allowing them to work together to tackle the new difficulties of directing students towards greater levels of learning and self-development (Saiti, A. (2006)). In general, excellence in education is brought through in-service training. It's also a means to update the skills and knowledge in order to improve teaching and learning, leading to greater work performance. Teachers necessitate in-service training to deal with new difficulties and changes in the classroom. It is an important component of increasing teacher professionalism. Training must be effective for instructors to enable them to implement what they've learned in the classroom (Bayrakci, M. (2009)). The efficiency of the program is a vital issue and it is closely linked to instructors' needs for self-improvement and growth (Ajayi, (2012)). It is therefore felt imperative to look at the effectiveness of in-service teachers' training programs from the teachers' point of view working in different secondary schools in the Balasore Municipal area.

REVIEW OF RELATED LITERATURE

Teaching and learning are impossible without effective teachers. Teachers who have been sufficiently equipped can shoulder the burden of nation-building. A well-trained teacher can only fulfill the noble responsibility of a teacher. A teacher with a broader perspective can provide a more successful lecture (Manu, S.Y. (1993)). A teacher is an active agent who helps to fulfill the goals of education. At the same time, the education and training of a teacher helps to enhance school learning by providing proficient and devoted teachers who can match with the current demand. Teachers who are well-trained serve as a link between the school and higher education systems (Bradson, 2002). A systematic endeavor to bring about improvements in teachers' classroom methods is termed as in-service teacher training program (Johnson, (1980)). The goal this educational program is to influence teachers' ideas and attitudes influencing students' learning environment (Gooskey (1986)). In-service training refers to the activities aiming at improving the growth and skills of school teachers. It is essential for the professional development of the teachers and to keep them up to date on current events (Akhter et al (2011)). In-service teacher training program includes both professional and subject-specific education. It is intended to foster the growth of school staff as well as the learning system as a whole. If the teachers are to carry out their duties successfully and efficiently, then they require proper training in new skills and current technique (Harris (2001)). It is essential to emphasize on the need for more enhanced educational achievement of teachers through various trainings to create an atmosphere facilitating quality education in classrooms through teachers' personal dedication (Ekpoh, (2013)). Teachers are seen to be the center of educational growth. As a result, in-service training focuses on the tasks and courses that teacher might do to improve his professional expertise, education, and interests after completing his original training (Kazmi, (2011)). In-service training is understood simply as the programs and activities that a practicing teacher might take to improve his or her expertise in the field, abilities, and effectiveness in the classroom. And so, it includes all sorts of education and training to a teacher who is currently teaching (Abdul Rashid (1996)). In-service training is vital in today's environment, given the rapid developments in science and technology, where new concepts emerge daily and students are taught new and cutting-edge technologies. Some basic concepts must be considered in order to achieve the defined objectives of in-service education in every field (Safi, S. (2014)).

OBJECTIVE

The main objective of this paper is to analyze the effect of the factors- Training Curriculum, Training Method, Training environment, Effective resource person, Interest of teachers and Training assessment on predicting the effectiveness of in-service training for teachers of secondary schools of Balasore Municipal area of Odisha.

HYPOTHESIS

H- Training Curriculum, Training Method, Training environment, Effective resource person, Interest of teachers and Training assessment have the predictive ability of effectiveness of in-service training for teachers.

METHODOLOGY

Study Area-The study is conducted in Balasore district of Odisha. Balasore is one of Odisha's coastal districts, located in the far northwestern part of the state. It was a part of the old Kalinga then it became a province of Utkal. Balasore was previously part of the Bengal presidency and it was established as a distinct district in October 1828. Balasore is the district's principal town as well as its economic growth center. Education has played a significant role in this district with average literacy level of 80%.

Population-There are 128 secondary school teachers working in 32 different schools of Balasore municipality area. And so the population size is restricted to 128 teachers working in secondary schools of Balasore Municipality area (Source: District Statistical Hand Book).

Sample-The sample size is limited to 88 teachers of secondary schools of Balasore municipality and the determination of sample size is detailed below.

Sample Size- The sample size decision is tested as follows.

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$$n = \text{Total Sample size} = \frac{\frac{z^2 p(1-p)}{e^2}}{1 + \frac{z^2 p(1-p)}{N e^2}} = 88$$

N = Population size = 128

e = Error involved = 5%, P = Proportion of schools = 0.50

Z = Critical value at 90% confidence level = 1.645

Collection of Data- Both primary and secondary data have been used in the study. The information about secondary schools in municipal area of Balasore district has been collected from secondary sources like government publications and official websites. The information collected from 88 secondary school teachers; about key determinants of effectiveness of in-service training constitute primary data. A well designed questionnaire consisting of six items based on different aspects of judging the effectiveness of in-service training have been used as an instrument tool to collect the primary data from 88 randomly selected teachers on 5-point scale. Where, 5–indicates strongly disagree and 1-indicates strongly agree attitude to that particular item/statement. The selection of the parameters of examining the effectiveness of in-service training was made by brain storming process. The researcher first conducted a pilot study with a small group of teachers and they were asked about key determinants of effective in-service training. The final selection of the items was made by testing the reliability of the items. The items with reliability score of more than 0.70 were included for further analysis. The data have been collected within two months period of 2021. The collected data have been analyzed through SPSS-23.

Sampling Technique-The sample respondents are selected by using judgement sampling technique in the sample area. The respondents who showed willingness to take part in the study were included in the sample.

MATERIAL AND METHOD

The logit model in the form of Binary logistic regression is used as a predictive method in which the dependent variable is a binary variable. The model is based on the equation that can predict the results of a dichotomous variable by using one or more independent variables without requiring the data to be continuous. Logit model assumes the dependent variable to be binary and the independent variables should not have any multicollinearity in the data set. The effective in-service training is taken as dependent variable. Six determinants of effectiveness of in-service training for teachers are considered as independent variables.

RESULTS

The results of the data analysis is detailed below

Coding of variables

The positive response is coded as “1” and the negative response is coded as “0”. The responses with score 3 or more are treated as positive responses and the responses with score less than 3 are treated as negative response towards a particular statement.

Reliability

The reliability of the instruments used in the study is tested through Cronobach’s Alpha (table no-1)

Table No-1: Reliability Statistics

Constructs	Alpha	N
Effective Training	0.781	6

The values of Alpha of 0.781 that is more than 0.50 indicates a strong level of internal reliability for the scale used in the study.

Table No-2: Collinearity Statistics

		Tolerance	VIF
1	Training Curriculum	.421	2.3753
	Training Method	.413	2.4213
	Training environment	.452	2.2124
	Effective resource person	.831	1.2034
	Interest of teachers	.828	1.2077
	Training assessment	.861	1.1614

The values of “Variance inflation factor (VIF)” (table no-2) for all the variables are less than 5, indicating the absence of multicollinearity in the data which is the basic assumption of Binary logistic Regression.

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Table No-3: Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	33.231	6	.000
	Block	33.231	6	.000
	Model	33.231	6	.000

The overall model (table no-3) is statistically significant, $\chi^2(10) = 33.231, p < .05$.

Table No-4: Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	457.321	.083	.127

The model (table no-4) explains the degree of variation in the dependent variable “Success of Green Banking”. “Nagelkerke R² value” of 0.127 explains 12.7% of variance in the dependent variable based on this model.

Table No-5: Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	3.156	8	.396

“Hosmer and Lemeshow Test” (table no-5) is an alternative statistical test for the goodness fit of the model through Chi-square values. It is used to test the fitness of the observed values with the values predicted by the model. In-significant p-value of 0.396 is an indication that the predicted value fits the observed values.

Table No-6: Variables in the Equation

	B	S.E.	Wald	df	Sig.	Exp(B)
Training Curriculum	0.225	0.261	0.772	1	0.431	1.255
Training Method	1.275	0.439	7.029	1	0.004	3.522
Training environment	0.681	0.251	6.012	1	0.009	0.438
Effective resource person	0.731	0.253	6.788	1	0.008	2.947
Interest of teachers	0.125	0.257	0.236	1	0.627	1.133
Training assessment	-0.171	0.25	0.492	1	0.471	0.843
Constant	-2.231	0.802	7.145	1	0.002	0.123

The table No-6 explains the “contribution of each independent variable to the model and its statistical significance”. The significance of the independent variables included in the study is tested through Wald’s test. The variables “Training Method (p =0.004)” and “Training environment (p = 0.009)” and “Effective resource person (p =0.008)” have p-values less than 0.05 and so these variables have significant contribution in the model. The contributions of “Training Curriculum (p = 0.431)”, “Interest of teachers (p = 0.627)” and “Training assessment (p = 0.471)” are not significant in this model.

Beta value is positive for the variables “Training Curriculum (B = 0.225)”, “Training Method (B = 1.275)” “Training environment (B = 0.712)”, “Effective resource person (B = 0.731)” and “Interest of teachers (B = 0.125)”. That means all these variables have predictive ability and positive effect on the dependent variable- “Effective Training”. But, only one variable “Training assessment (B = - 0.171)” has negative impact on “Effective Training” and so this variable does not have the predictive ability.

The hypothesis gets rejected for – “Training assessment” and accepted for rest of the variables.

The estimated odd ratio of 1.255 for the variable “Training Curriculum” indicates that the curriculum is 1.255 times more likely to make the training effective, controlling all other variables in model. Similarly, the odd ratio of the variable “Training Method” is 3.522 and this variable is 3.522 times more likely to make the training effective, where all other variables are constant. In the same way, Effective resource person is 3.947 times more likely to make the concept of in-service training effective. In the same manner it can be interpreted that Interest of teachers is 1.133 times more likely to make the training effective as compared to all other variables.

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FINDINGS

1. The scale used as a measuring instrument is reliable.
2. The variables –“Training Curriculum, Training Method, Training environment, Effective resource person and Interest of teachers” have positive relation with the dependent variable. But, the variable variables—“Training assessment” has ahs negative relation with the dependent variable.
3. Training Curriculum, Training Method, Training environment, Effective resource person and Interest of teachers have the predictive ability of training effectiveness in the study area.
4. Training Curriculum is 1.255 times more likely to bring the success of training.
5. Training Method is 3.522 times more likely to make the training effective.
6. Effective resource person is 3.947 times more likely to make the concept of in-service training effective.
7. Interest of teachers is 1.133 times more likely to make the training effective.

CONCLUSION

Education is a critical component in bringing about desirable cultural and social changes in a country. A teacher is a person who molds education as a whole and has a significant impact on society's growth. Changes in approach and content will continue to be taken into account in teachers' education as well. Teachers need to be exposed frequently to new ideas in their field and they should undergo training as a part of ongoing teacher education. The role of the teacher is critical in igniting students' enthusiasm in achieving society's aspirations and goals. In-service training must be carried out in accordance with a detailed, well-organized plan that contains well-defined and coordinated goals, objectives, strategies, activities, materials and methods in a supportive environment. The methodologies utilized in providing in-service training should be commensurate with the demands of the participants in order to ensure that the process of channeling information becomes a reality. At the same time the participants should be positive towards training program as the provision of professional development through frequent training is one of the major factors of assessing teacher quality. With the rapid developments in science and technology, in-service training to teachers' is therefore important in today's environment, where the students are taught with new and progressive technologies. The major goal of in-service training is to improve one' ability to achieve goals and objectives. The study will be helpful to the policy makers in designing curriculum and formulating new methods of training for teachers that would be appropriate to present situation.

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