

Evaluation of Trainees Reaction Towards the Trainer, Training Material and Training Method: Factor Contributes.

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Abstract

Purpose - This paper examines the first aspect of evaluation of training: reaction. The significance of age towards aspects such as trainer, training material and training method were analysed to understand those elements effecting and contributing training effectiveness. **Design/methodology** - The reaction of the trainees was gathered through a help of a structured questionnaire. The statistical tool used was ANNOVA to check the significance between different age group with different aspects of the factors contributing to trainees' reaction

Findings - It showed a significant difference in means between age group belonging to fifty and above and age group belonging to twenty to forty.

Research limitations/implications - A larger sample size of trainee teachers covering other states would help in generalising the findings.

Keywords: Training, In-service Training, Training Effectiveness, Trainees Reaction.

For many trainings is a planned process with clearly defined parameters, having a definite beginning and end. It helps participants explore and realise their potentials and talent; through training the process of learning happens with the help of a facilitator (SAHU, 2009). Training and development have been receiving attention in the industrial and academic communities. Training brings about a development of knowledge, upgradation of skills or tuning of attitudes leading into a perceptible behaviour and functional behaviour or actions. 'Training enhances efficiency and develops a systematic way of performing duties and assigned tasks.' It is 'a method of improving an employee's skill, knowledge, and abilities for them to perform a specific job. Indeed, many employees rely on training to improve their current skills and learn new skills (Mathieu, Tannenbaum , & Salas, 1992).

Training

"Training is the formal and systematic modification of behaviour through learning which occurs as a result of education, instruction, development, and planned experience. Development is improving individual performance in their present roles and preparing them for greater responsibilities in the future (Armstrong, 2001)". Organisations had always relied on the use of teams to attain organisational goals and to enhance team effectiveness. Teams training for the specific knowledge, skills, and attitudes to be imparted are determined prior to starting of the training programme. It is a learning experience designed to bring permanent change in the individuals' knowledge, attitudes, and skills (Raymond, 1996).

Trainings are expensive' and in-service training programme is a crucial element for the professional development of the teachers (Alfaidi & Elhassan, 2020). It plays a significant role in a teacher's professional development. (Owen, 1990) mentioned, "the positive aspect concerning professional development of teachers are that the program will make sure that learning activities is planned and concentrated on empowering effect teachers to correct policies, curriculum development, teaching, and views on how to achieve high productivity and students' 'performance'".

In-service Training

Training is also important in education sector as they improve the quality of education and enhances the necessary skills required of the teachers playing an essential role in successful education reform (Omar , 2021). As in every profession it is important for the teachers to update on the current research, teaching practices and concepts. It is the driving force for the changes occurred around teaching and learning (Mohamad, 1996). The fundamental aspect for the enhancement of teacher's professionalism.

The basic element for the professional development of teachers is In-service training (Şahin & Akıncı, 2020). It is about developing the teachers quality in line with the current developments. (Osamwonyi & Akpata, 2016) In simple it can be defined as the relevant courses and activities in which a teacher (in-service) participates in training to upgrade the professional knowledge, skills and competence in the teaching profession. (Development, 1993) Indicators of the quality of a teacher In-service training programme could be the effectiveness, efficiency, acceptability, external validity, replicability, etc.

- a. Effectiveness - refers to how well or to what extent the desired objectives are achieved.
- b. Efficiency - pertains to the effectiveness relative to cost.
- c. Acceptability - pertains to the trainee's reception, readiness, degree of identification to receive the programme.
- d. External validity - refers to the generalizability of the finding of the effectiveness of a training program to other situations and contexts.
- e. Replicability – pertains to the extent to which the training programme can be repeated or done again exactly in the same way.

Samagra Shiksha Abhiyan

Samagra Shiksha is an Integrated Scheme for School Education aimed at ensuring inclusive and equitable quality education from Class PreKG-12th Standard. It subsumes three then existing schemes – Sarva Shiksha Abhiyan (SSA), Rashtriya Madhyamik Shiksha Abhiyan (RMSA) and Teacher Education (TE). The main outcomes of the Scheme are envisaged as Universal Access, Equity, Quality and strengthening of Teacher Education Institutions (TEIs), etc.

Training Effectiveness

Training is an expensive investment of the organisation on the employees, so it is important that organisations evaluate the effectiveness of the training. (Endres & Kleiner, 1990) Measuring effectiveness in “training and development is how well they reduce needs (the difference between performance standard required and initial skill level) and an iterative process providing feedback on management process.” As there are no one single method of evaluation, one of the most widely known method for Evaluation of training and development has been designed by Donald Kirkpatrick. The model suggests four areas to analyse the effectiveness of a training and development programme – reaction, learning, behaviour, and results (Bates, 2004).

- Reaction – the degree to which participants find the training favourable, engaging and relevant to their jobs.
- Learning – the degree to which participants acquire the intended knowledge, skills and attitudes.
- Behaviour – the degree to which participants apply what they learned during training when they back on the job.
- Results – the degree to which targeted outcomes occur as a result of the training (Kirkpatrick & Kirkpatrick, 2006).

Rationale of the study

A trainer's performance predict the usefulness of training (Bhat, 2024). Imparting good quality in-service training can be influenced through many factors. Studies conducted by many researchers mention the most influential of them is the resource person followed by infrastructure availability, convenient trainig schedule (Singh & Sinha, 2023). Evaluating reaction of a training programme enhances the quality of a traininig programme, which makes its more efficienet and effective in improving organisational performance. It is a formative evaluation which can also be summative in nature (Lee & Ming, 1999). For an organisation reaction of the trainee can be used as an indicator for satisfaction towards the training programme (Grohmann & Kauffeld, 2013).

A trainees reaction during traininig is expected to impact the attentional effort during the training course as it serves as moderating role between training motivation and learning (Long, 2008). Cognitive reaction of employees are related to learning. It is the primary means by which organisations evaluate training. (Brown, 2005) Reactions allow organisation to assess satisfaction with the training , which hepls in decision making (for deciding which course or instructor to continue) and feedback to revise training.

Reaction: The first level of evaluation focused on the trainee's perception of the effectiveness of the training (Bergamo, Izart , Streng , Rosenkranz , & Ghorbani , 2022). It is termed as the trainees liking of or feeling for a training programme (Alliger & Janak, 1989). This level helps to identify the area of improvement and for continuing or discontinuing a particular programme. Path analysis condcted by (Clement, 1978) found that trainees reaction had a causal impact on learning which had a significant influence on behaviour change.

Objective of the study

1. To find the reaction of the trainees towards the trainer, training method and training material.
2. To find the significant difference of trainee's reaction in respect of age towards the trainer, training method and training material.

Measures: In this study the trainee's reaction towards the trainer, training method, training material and the training objectives were the criteria chosen for the study. Based on various review of literature (Lee & Ming, 1999) proposed a comprehensive dimension for evaluating reaction. They were programme objective, program material, delivery method, technologies, instructor/facilitator, program time, training environment, planned action and logistics/administration. (Morgan; & Casper, 2000) examined underlying factor structure for reaction in different training course and summed up six factors with the instructor factor accounting for a sizable proportion of variance. It carried a great weight in trainees' overall perception of training effort.

From which three dimensions were measured post -training: trainer, training method and training material. Each dimension was measured with factors, using a five-point Likert scale range.

Research Plan: It was decided to include all the 351 teachers attending the ten days in-service training programme conducted under the Samagra Shiksha Abhiyan – A Central Government Initiative. The questionnaire set for the study was developed after the consent and with accordance to the respective superior in-charge for the training.

Demographic details – Age wise: The demographic details of the sample are being given below in the form of Table.1.

Table 1	Demographic Details of the respondent	
Age	No. of Respondents (n= 351)	Percentage %
20 -30 years	46	13.1
31-40 years	65	18.5
41-50 years	152	43.3
Above 50 years	88	25.1

The reaction of the trainee towards the trainer were analysed through eleven attributes the mean of which are analysed to rank them in order of existence is represented in Table.2. The trainer's clarity with the concept has the highest mean ranking of 4.1. This indicates the trainer's clarity with the concept as a major influence on the trainee's reaction towards the trainer. Majority of the respondents i.e., 76.9 per cent of the respondents agree the trainer had good concept clarity and another 16.52 per cent of the respondent do support the same.

The attitude of the trainer and the ability for clarification of doubt's rank in the second and third with a mean score of 4.07 and 4.04 respectively. Among this the trainer's ability to clarify doubts were agreed upon with a majority of 71.79 per cent, and whereas the attitude of the trainer was rated well by a majority of 62.96 per cent of the respondents.

The usage of visual and teaching aids and practical explanation of the knowledge in the work area by the trainer are ranked fourth and it can be observed that 69.52 per cent and 65.81 per cent have given a concrete opinion on the same.

The instruction regarding the course material given by the trainer was ranked tenth with a mean value of 3.64. 42.74 per cent and 41.60 per cent of the respondent rated how effective the instruction of the course material was given by the trainer with the response being distributed equally within the respondents with a minor difference of change in value.

<i>Opinion and mean ranking of the respondent's reaction towards the trainer</i>						Table 2
<i>Factor</i>	<i>Fair</i>	<i>Good</i>	<i>Very Good</i>	<i>Excellent</i>	<i>Mean</i>	<i>Mean Rank</i>
<i>Concept</i>	1 (6%)	22 (76.9%)	270 (16.52%)	58	4.1	1
<i>Attitude</i>	4 (1%)	46 (13%)	221 (62.96%)	80 (22.79%)	4.07	2
<i>Doubt Clarification</i>	3	37 (10.54%)	252 (71.79%)	59 (16.80%)	4.05	3
<i>Visual Aid</i>	1	66 (18.80%)	231 (65.81%)	53 (15.09%)	3.96	4
<i>Practical Application</i>	1	59 (16.81%)	244 (69.52%)	47 (13.39%)	3.96	4
<i>Considered training method to learn</i>	3	74 (21.08%)	222 (63.25%)	52 (14.81%)	3.92	5
<i>Communication Skill</i>	3	66 (18.80%)	243 (69.23%)	39 (11.11%)	3.91	6
<i>Summary</i>	4 (1%)	83 (23.65%)	215 (61.25%)	49 (13.96%)	3.88	7
<i>Appropriate visual aids</i>	4 (1%)	77 (21.93%)	235 (66.95%)	35 (9.97%)	3.86	8

<i>Instruction - Class Exercise</i>	24 (6.84%)	94 (26.78%)	182 (51.85%)	51 (14.53%)	3.74	9
<i>Instruction - Course Material</i>	12 (3.42%)	146 (41.60%)	150 (42.74%)	43 (12.25%)	3.64	10

Table.3 represents the opinion and mean value reaction of the respondents towards the training material. The course material offered for reference as a mean value of 4.06, and has been ranked highest; with a majority of 64.67 per cent of the respondent agreeing to the standard of the material as good.

The material relevance to content context and the structure of the material was ranked second and third with a mean value of 3.91 and 3.88, with a majority of the respondent i.e., 69.23 per cent and 72.65 per cent accepted on the same.

Reference material was ranked fifth with a mean value of 3.68; with a majority of 56.13 per cent of the respondent accepted the material was within their level of experience.

Training related to needs of the respondent has a mean value of 3.48, with 30.20 per cent of the respondent disagreeing and 48.43 per cent of the respondent agreeing, without a concrete opinion.

<i>Opinion and mean ranking of the respondent's reaction towards the training material</i>							Table 3
<i>Factor</i>	<i>SDA</i>	<i>Disagree</i>	<i>Neutral</i>	<i>Agree</i>	<i>SA</i>	<i>Mean</i>	<i>Mean Rank</i>
<i>Material Reference – Standard</i>	0 (4.56%)	16 (4.56%)	28 (7.97%)	227 (64.67%)	80 (22.79%)	4.06	1
<i>Content context</i>	0 (4.84%)	17 (4.84%)	45 (12.82%)	243 (69.23%)	46 (13.10%)	3.91	2
<i>Material Structure</i>	0 (2.85%)	10 (2.85%)	54 (15.39%)	255 (72.65%)	32 (9.12%)	3.88	3
<i>Material Clarity</i>	2 (9.69%)	34 (9.69%)	56 (15.94%)	221 (62.96%)	38 (10.83%)	3.74	4
<i>Material Presented with level of experience</i>	4 (1.14%)	34 (9.69%)	75 (21.37%)	197 (56.13%)	41 (11.68%)	3.68	5
<i>Subject – Training related to needs</i>	0 (30.20%)	106 (30.20%)	22 (6.27%)	170 (48.43%)	53 (15.10%)	3.48	6

<i>Opinion and mean ranking of the respondent's reaction towards the training methods</i>							Table 4
<i>Factor</i>	<i>Strongly Disagree</i>	<i>Disagree</i>	<i>Neutral</i>	<i>Agree</i>	<i>Strongly Agree</i>	<i>Mean</i>	<i>Mean Rank</i>
<i>Activity Based</i>	0	0	7	281	63	4.16	1

<i>Teaching Aid</i>	0	7	6	271	67	4.13	2
<i>Time to recollect</i>	0	5	18	276	52	4.07	3
<i>Opportunity to interact</i>	2	23	13	246	67	4.01	4
<i>Assessment</i>	0	17	65	216	53	3.87	5
Training method	2	64	81	124	80	3.62	6
<i>Assignments</i>	4	94	27	192	30	3.43	7

Table 5		<i>One way analysis of variance between age and respondents' reaction towards the trainer</i>					
<i>Factor</i>	<i>Age</i>	<i>Mean</i>	<i>S. D</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>Sig</i>
Concept	Between Groups			1.937	3	0.646	
	20-30 (n = 46)	3.96	0.63				
	31-40 (n = 65)	4.02	0.52				
	41-50 (n= 152)	4.14	0.37				0.038
	51 above (n = 88)	4.16	0.52				
Visual Aids	Within Groups			78.769	347	0.227	
	Between Groups			2.991	3	0.997	
Summary given by the trainer	20-30 (n = 46)	4.17	0.68				
	31-40 (n = 65)	4	0.53				0.035
	41-50 (n= 152)	3.89	0.59				
Consideration of preferred training method	51 above (n = 88)	3.92	0.57				
	Within Groups			119.36	347	0.344	
	Between Groups			7.722	3	2.574	
	20-30 (n = 46)	3.63	0.65				
	31-40 (n = 65)	3.72	0.63				
	41-50 (n= 152)	4.03	0.55				0.000
	51 above (n = 88)	3.88	0.72				
	Within Groups			135.25	347	0.39	
	Between Groups			11.642	3	3.881	
	20-30 (n = 46)	3.74	0.65				
	31-40 (n = 65)	3.78	0.65				
	41-50 (n= 152)	3.86	0.61				0.000
	51 above (n = 88)	4.23	0.5				
	Within Groups			124.12	347	0.358	

Table.5 There are significant variations in the mean values of the respondent with different age group. The ‘f’ test shows the respondent within the age group of fifty above have a significant difference towards the trainers concept clarity with a mean value of 4.16 and the consideration of the trainer towards the trainees preferred method to learn with a mean value of 4.23.

There is also a significant variation among the age group of twenty to thirty towards the trainer’s use of visual aids with a mean value of 4.17 and respondents within the age group of forty one to fifty have a significant variation towards the summary given by the trainer at the close of each session with a mean value of 4.03

Table 6	<i>One way analysis of variance between age and respondents’ reaction towards the training material</i>						
<i>Factor</i>	<i>Age</i>	<i>Mean</i>	<i>S. D</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>Sig</i>
Content – context	Between Groups			12.381	3	4.127	
	20-30 (n = 46)	4.15	0.36				
	31-40 (n = 65)	4.11	0.31				
	41-50 (n= 152)	3.91	0.64				
Material Clarity	51 above (n = 88)	3.63	0.89				
	Within Groups			143.516	347	0.414	
	Between Groups			20.17	3	6.723	Significant
	20-30 (n = 46)	4.15	0.42				
Material Presented	31-40 (n = 65)	4.03	0.35				
	41-50 (n= 152)	3.54	0.9				
	51 above (n = 88)	3.65	0.87				
	Within Groups			203.716	347	0.587	
Material well structured	Between Groups			5.947	3	1.982	0.040
	20-30 (n = 46)	3.46	0.78				
	31-40 (n = 65)	3.88	0.82				
	41-50 (n= 152)	3.61	0.85				
Material reference standard	51 above (n = 88)	3.75	0.87				
	Within Groups			245.027	347	0.706	
	Between Groups			3.226	3	1.075	0.025
	20-30 (n = 46)	4.02	0.45				
	31-40 (n = 65)	4.02	0.22				
	41-50 (n= 152)	3.84	0.69				
	51 above (n = 88)	3.78	0.63				
	Within Groups			117.749	347	0.339	
	Between Groups			5.88	3	1.96	0.007

20-30 (n = 46)	4.37	0.49			
31-40 (n = 65)	4.02	0.63			
41-50 (n= 152)	3.97	0.77			
51 above (n = 88)	4.08	0.68			
Within Groups			164.981	347	0.475

Table.6 implies there is a significant difference between the age of the respondents and the reaction towards the training material. There are significant variations in the mean values of the respondent with different age group. The 'f' test shows the respondent within the age group of twenty to thirty have a significant difference towards the training material content, with a mean value of 4.15, the clarity of the course material with a mean value of 4.15, the structure of the material with a mean vlaue 4.02 and the material offered for reference with a mean value of 4.37. There is also a significant variation among the age group of thirty one to fourty towards the material presented for reference for their level of experience with a mean value 3.88.

Table 7		<i>One way analysis of variance between age and respondents' reaction towards the training method</i>					
<i>Factor</i>	<i>Age</i>	<i>Mean</i>	<i>S. D</i>	<i>SS</i>	<i>Df</i>	<i>MS</i>	<i>Sig</i>
<i>Time to recollect</i>	Between Groups			1.995	3	0.665	0.047
	20-30 (n = 46)	3.98	0.49				
<i>Assignments</i>	31-40 (n = 65)	4.08	0.37				
	41-50 (n= 152)	4.14	0.44				
	51 above (n = 88)	3.98	0.66				
	Within Groups			86.364	347	0.249	
<i>Opportunity to interact</i>	Between Groups			82.819	3	27.61	0.000
	20-30 (n = 46)	4.2	0.45				
	31-40 (n = 65)	4.09	0.38				
	41-50 (n= 152)	3.05	1.01				
	51 above (n = 88)	3.19	1.04				
<i>Assessment</i>	Within Groups			267.079	347	0.77	
	Between Groups			6.352	3	2.117	0.006
<i>Training method appropriateness</i>	20-30 (n = 46)	4.28	0.46				
	31-40 (n = 65)	4.03	0.68				
	41-50 (n= 152)	4.03	0.72				
	51 above (n = 88)	3.83	0.81				
	Within Groups			173.602	347	0.5	
	Between Groups			4.171	3	1.39	0.043

20-30 (n = 46)	4.02	0.49			
31-40 (n = 65)	4.02	0.41			
41-50 (n= 152)	3.76	0.86			
51 above (n = 88)	3.86	0.7			
Within Groups			175.8	347	0.507
Between Groups			11.72	3	3.907 0.011
20-30 (n = 46)	4.09	0.92			
31-40 (n = 65)	3.6	0.97			
41-50 (n= 152)	3.71	0.97			
51 above (n = 88)	3.74	0.99			
Within Groups			362.884	347	1.046

Table.7 implies there is a significant difference between the age of the respondents and the reaction towards the training method. There are significant variations in the mean values of the respondent with different age group. The 'f' test shows the respondent within the age group of twenty to thirty one have a significant difference towards training method in regard to assignments with a mean value of 4.09, opportunity to interact with other participants with a mean value of 4.28, assessments provided during the training with a mean value of 4.02 and the training method appropriateness to deliver the concept with a mean value of 4.09. Similarly trainees within the age group of forty one to 50 above have a significant variation towards time provided for recollection with a mean value of 4.14 and assessments provided during the training programme with a mean value of 4.09.

Conclusion

Coordination between the trainer and the trainees is important to ensure effective training. (Vyas, 2004) in the study mentioned a course even when well planned and according to the requirement of the trainee sometimes does not reach the trainee. The trainer should have the ability to deliver the content of the training. Similarly in his studies concluded satisfaction with instructor factor is highly correlated with utility scale. There was also a positive correlation between satisfaction with the instructor and the material (Morgan; & Casper, 2000). The reaction of the trainees towards the trainer was analysed using eleven factor from which only four factors were significant with the age group between forty one to 51 above having the highest mean value towards factors such as concept clarity of the trainer, summary given at the close of each session and consideration towards the trainees preferred method to learn. It can be noted of the use of technology (visual aids) to conduct the training as the mean value with the age group of twenty to forty, which can be assumed to the characteristics of the population as they belong to a generation tech-savvy when comparing to the other. In the study conducted by on evaluating effectiveness of a training programme with trainees reaction (Ghosh, Joshi, & Satya, 2011) as mentioned the intellectual superiority of the trainees (experienced) had a significant difference in the mean value towards the communication of the trainer in regard to the instructions similarly trainees belonging to the age group of forty and above owing to their superiority of experience have a significant difference to the aspect: Trainer's concept clarity. Training material should be clear and well articulated for the trainees. Six factors considered for studying the significant difference revealed five factors to be significant to the study. The material clarity, structure and content -context was significant to the age group of trainees within the category of twenty to forty. A well structured material will positively affect the training effectiveness, promoting active interaction and encouraging faster learning (Hajjar & Alkhanaizi, 2018). A well organised material sequence is offered by an effective trainer for optimal learning and interest stimulation among the trainees (Goldstein, 2002 as quoted by Abudlhabib & Al-Dhaafri, 2020). Finally there is a prevailing relationship between training methods and training effectiveness which was supported through the study by (Abudlhabib & Al-Dhaafri, 2020). In this study seven factors were

considered to study the significant difference from which five factors were significant to the mean value. It was noticed mostly trainees belonging to the age group of twenty to forty was satisfied with the training methods employed by the trainer. The most preferred method by the whole group of trainees was the opportunity to interact which is assumed by the researcher as owing to their job nature of interaction quite often. The training programme should be continued with improvements of understanding the characteristics of the trainee, even before choosing the methods to deliver the training. As through the study the researcher concludes age plays a significant role in achieving the reaction towards the training.

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