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**VOCATIONAL SKILLS- A STUDY ON STRATEGIC  
OPERATIONALIZATION TO TEACHERS**

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**ABSTRACT**

The purpose of research paper is to study about the vocational skill development training offered by Institute for Entrepreneurship and Career Development (IECD), Bharathidasan University, Tiruchirappalli, TamilNadu, India. There were 95 school teachers from schools located at Coimbatore region, Tamil Nadu, India, have participated in the skill development training in the field of ICT. The present study identifies about the importance of skill development training to the employees and gathering their respondents based on the training in the form of structured questionnaire. The responses were collected and analyzed with the help of SPSS software. The general findings shows that maximum numbers of respondents in the study were married female teachers and they were the new entrants of the training. The mean score values shows that the training organized by IECD, under its director and the author of the paper, was well designed, efficiently planned, organized and implemented with other material resources and handouts which were useful to follow up in future. The major findings shows that, there were no significant associations between the respondent's dependent variables like programme execution, teaching/learning approach, training impacts on teaching, attitude on training and availability of teaching resources and their participation in the training programme.

Keywords: Vocational Skill Development, Training and Development

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**I. Introduction**

According to **Ministry of Statistics and Programme Implementation, (2017)**, India is the only country with 67% of employees under the age group of 15 to 60 years and 54% of the people in India are below the age of 25 years when compared to other developed nations. Those people are identified as school going teenagers of about 15 to 19 years, college students 20 to 24 years and employees about 24 to 35 years. In the overall youth population in India 57% of them are girls and 62% of them are boys. 47% of the Indian youth are unemployed-graduates, due to their skill mismatch. It is estimated

that there is a need of 109.73 Million skilled employees required by 2020 in the field of IT/ITES, automobiles, electronics, leather, food processing, textiles, healthcare, electronics & hardware, real estate, media & entertainment, apparels, beauty & cosmetics, rubber, plumbing, telecommunication, mining, security and tourism. There are top 5 Indian states that are comes under the incremental requirements provided by the country by their ranking as follows: Maharashtra, Tamil Nadu, Uttar Pradesh, Uttaranchal and Andhra Pradesh. Among them Tamil Nadu has 13.55of skilled manpower would require within 2020.

In TamilNadu many public, private or privately funded institutions have offered many certification and degree programmes based on skill development and vocational training. NSFQ (National Skills Qualification Framework) provides training programmes for both government-funded and privately-funded institutions, colleges and organizations. NSFQ also combine three more schemes with certifications namely, NCVT (National Council for Vocational Training), AICTE (All India Council for Technical Education) and SSC (Sector Skill Council). All these schemes provide skill training, on-job training and training to school going children. These programmes will promote and update training curriculum for the people with skill thirst. It will also teach entrepreneurship skills through education and training. Likewise IECD has been organizing and providing eminent skill development courses for school going children with university certification. The name of the scheme is called SUITS (School-University-Industry-Tie up-Scheme). It was conceptualized by the author during 2007-2008. Under the scheme, there are eight skill development programmes namely computer basics, office automation, programming techniques, C programming, C++, web design, graphic design and 2D animation. The duration of each programme is for one academic year or 150 hours of training. The skill development component consists of 60% practical and 40% theoretical.

For each skill development programme, there is a separate module based text books and a separate teacher hand book published by IECD for implementing the scheme at school level in TamilNadu. For the past eight years, under the directorship of IECD (present author), trained thousands and thousands of teachers involved in the SUITS between 2008-2017. During the past eight years, over 2 Lakhs School students were trained and certified in the field of IT. From 2008-2009 to till date SUITS programme is in practice in selected schools of TamilNadu. The present study deals with the skill development training programme operationalized for school teachers under the SUITS programme in Coimbatore region (consisting of Coimbatore, Nilgiris, Erode, Salem and Tirupur Districts) of TamilNadu, India.

## II. Literature Review

**Parthasarathy et.al., (2017)**, explained that skill education should be implemented in every sector to improvise their educational status. Every programme should be analyzed with respondent's feedback to address issues and challenges in the training. It will help the educational institutions to update or modify their policies based on employees' needs. Employees are the future training providers to their juniors or subordinates, hence they should also participate in training without any gender differences. Evaluating the skills will makes them to learn about their relevant field of knowledge through e-learning, knowledge sharing, informal training, etc.,

**Anup Kumar Das, (2015)**, defined that by 2020, it is estimated that around 530 million of trained people will enter into the field of IT/ITES, finance, banking and insurance, heavy industries, IT and hardware, Micro, small and medium enterprises, urban development, family welfare and health care, consumer affairs, textiles, food processing, overseas affairs, construction, agriculture, chemicals and fertilizers and so on. These developments are mainly focused upon skilling educated youths and to help poor rural families in India. It will expand and enhance their livelihood through entrepreneurship and self-employment. Short term, full term or long term and part time programmes, along with degree programmes are also offered for skill education. Indian government should concentrate on economically weak states or districts to care

them and makes them professionalize through skill enrichment programmes in above mentioned sectors.

According to **Praveen Kumar, (2012)**, reported that India demands only on skilled workforce. Next five years, 50 to 70 million employment opportunities will be created for new and existing employees. Lack of formal training there is a scarcity of skilled workforce. There are two major challenges which are observed are, lack of skills in unorganized sectors and lack of skill training for the employees. There is a huge need of interested learners in organizations; it will help them to identify required skills among industries, admin service and new technologies. Informal sector should be focused for promotional changes in institutions. Providing vertical mobility to pursue skills through academic training depends upon their future oriented goals or in desired fields.

### III. Problem and Objectives

1. To study the personal profile of the respondents in the study area.
2. To study the training outcomes among the respondents of the vocational skill development training programme in the study area.
3. To find out the association between respondents' dependent variables (programme execution, teaching/learning approach, training impact on teaching, attitude on training and availability of teaching resources) and outcome of the vocational skill development training programme in the study area.

### IV. Research Methodology

Descriptive research design was used in the present study. The purpose of this design is to formulate objectives, hypotheses and sampling framework. Census method was used to collect the survey from the respondents who were the participants of SUITS programme offered by IECD, Bharathidasan University in selected schools located in Coimbatore region, Tamil Nadu. SUITS was developed to teach the skill education on computer programmes as a strong pillar to children's future academic development. 95 school teachers who were the respondents of the present study, provides their feedback through a structured questionnaire with both open ended and closed ended questions formulated by the author. SPSS is used to analyses the results of the study based on the objectives and hypotheses.

### V. General Findings

**Table-1 Frequency Distribution for Personal Profile of the Respondents**

Personal Variables	Category	Frequency (N=95)	Percentage (100%)
Age	Upto 25 Years	34	35.8
	26-35 Years	47	49.5
	36-45 Years	12	12.6
	46 Years & above	2	2.1
Educational Qualification	UG Degree	34	35.8
	PG Degree	49	51.6
	Above PG Degree	12	12.6
Level of Teaching	Primary	10	10.5
	Middle	7	7.4
	High School	16	16.8
	Higher secondary	62	65.3
Marital Status	Married	66	69.5
	Unmarried	29	30.5
Teaching Experience	Fresher's	53	55.8
	1-3 Years	22	23.2
	4-6 Years	8	8.4

	7-9 Years	6	6.3
	10 Years & above	6	6.3
<b>Monthly Income</b>	Below Rs.5000/-	12	12.6
	Rs.5001-10000/-	43	45.3
	Rs.10001-15000/-	25	26.3
	Rs.15001/-& above	15	15.8
<b>Presence of previous Training Programmes</b>	Yes	28	29.5
	No	67	70.5

Based on the table-1, 49.5% of the respondents in the study area are belonging to the age group of 26 to 35 years, remaining 35.8%, 12.6% and 2.1% of the respondents belong to the age group upto 25 years, 36 to 45 years and 46 years and above respectively. 51.6% of the respondents are post graduates, 12.6% of them have completed post-graduation and above degree and only 35.8% of them are under graduates. 65.3% of the respondents are handling higher secondary students, 16.8%, 10.5% and 7.5% of them are handling high school, primary and middle school children in the study area. Most of the respondents in the study area, 69.5% are married and only 30.5% are unmarried. 55.8% of the respondents are freshers, 23.2%, 8.4%, 6.3% and 6.3% of them are having their teaching experience as 1 to 3 years, 4 to 6 years, 7 to 9 years and having more than 10 years of teaching experience respectively. 45.3% of the respondents are earning Rs.5001 to Rs.10,000/-as their monthly salary, 26.3%,15.8% and 12.6% of them are earning upto Rs.10,001 to Rs.15,000/-, Rs.15,001/- & above and below Rs.5,000 as their monthly salary respectively. 70.5% of the respondents were attended the previous training programmes offered by IECD and only 23.9% of them are new to the training programmes.

**Table-2 Descriptive Statistics showing the Mean and SD of the Training Outcomes**

<b>Training outcome</b>	<b>Mean</b>	<b>Std. Deviation</b>
Well designed and organized training programme	3.00	.000
The programme covers Trainee's need and passion	2.92	.279
Efficiently planned and developed curriculum	2.73	.573
Effectively organized schedules and facilities	2.81	.445
Trainee's handbook provided were based on present day context	2.96	.202
Resource Persons were actively involved	2.79	.481
Management games inspires the Trainees to learn more	2.91	.329
Inter related theory and practical context	2.95	.224
Trainees were allowed to share their experiences and suggestions	2.93	.263
Adequately provided theoretical context	2.69	.566
Training and its time allocation were optimal	2.44	.664
Trainees need to extend the training duration	2.77	.472
Length of each sessions were adequate	2.88	.353
Training team effectively coordinates the trainees	2.95	.224
Trainees were able to follow effective teaching in their schools	2.85	.356
Self-directed and participant oriented sessions	2.86	.402
Sessions focused on advanced computer skills	2.94	.245
Trainers fulfilled the objectives of the training	2.83	.376
Outcome of training reflects on effective teaching	2.88	.382
Regular practices makes the students realistic and achievable	2.96	.202
Training manual and handouts are adequate	2.92	.347
All the basic concepts of computer science were covered	2.83	.404

The whole training was informative	2.77	.448
Lab facilities in the schools were adequate	2.96	.202
Platforms used in PCs were easily handled by students	2.80	.497

Analyzing the mean and standard deviation of the dependent variables of the respondents in the study area, table-2 shows that, the variable well designed and organized training programme with highest mean score as 3.00 with 0 as standard deviation, followed by the variables regular practices makes the students realistic and achievable, lab facilities in the schools were adequate and trainee's handbook provided were based on present day context with the second highest mean score of 2.96 and their standard deviation are 0.202 respectively. The variables inter related theory and practical context and training team effectively coordinates the trainees are having the mean value as 2.95 and standard deviation as 0.224. All the mean scores shows that the systematic approach was followed by IECD for implementing the skill development training programmes for the school teachers in selected schools in TamilNadu.

## VI. Hypotheses related Findings

### Hypothesis-1

There will be no significant association between the respondent's participation of training programme for second time and overall outcome of training programme under programme execution in the study area.

**Table-3 Chi-Square Test showing the Association between Respondent's Participation of Training Programme for Second Time and Overall Outcome of the Training under Programme Execution**

			Programme Execution			Total
			Low	Moderate	High	
Participation of Training Programme for Second Time	Yes	Count	1	5	22	28
		% within Training Programme	3.6%	17.9%	78.6%	100.0%
		% within outcome	20.0%	35.7%	28.9%	29.5%
	No	Count	4	9	54	67
		% within Training Programme	6.0%	13.4%	80.6%	100.0%
		% within outcome	80.0%	64.3%	71.1%	70.5%
Total	Count	5	14	76	95	
	% within Training Programme	5.3%	14.7%	80.0%	100.0%	
	% within outcome	100.0%	100.0%	100.0%	100.0%	
$\chi^2= .993$ P-value=.963						

The table-3 shows that, 70.5% of the respondents were already participated in the training programmes offered by IECD, falls under the category of high training outcomes as 71.1% followed by moderate level as 13.4% and low level as 6%. Likewise 29.5% of the respondents are new to the training programme offered by IECD, falls under the category of 28.9% as higher training outcomes, followed by 35.7% moderate response about the training outcomes and only 20% low level responses about the training outcomes in the study area. Further analysis shows that the  $\chi^2$  value of associated variables are 0.993 and their p-value is 0.963, so there is no significant association between participation of training programme for second time and overall outcome of training programme under programme execution in the study area. Hence the null hypothesis-1 is accepted as, **there is no significant association between the participation of training programme for second time and overall outcome of training programme under programme execution in the study area.**

**Hypothesis-2** There will be no significant association between the respondent's participation of training programme for the second time and their attitude towards the skill development training programme.

**Table-4** Chi-square Test showing the Association between Respondent's Participation of Training Programme for Second Time and Their Attitude towards Skill Development Training programme

			Attitude Towards the Programme			Total
			Low	Moderate	High	
Participation of Training Programme for Second Time	Yes	Count	1	1	25	28
		% within Training Programme	3.6%	3.6%	92.0%	100.0%
		% within Attitude Towards Programme	33.3%	11.1%	62.8%	29.5%
	No	Count	3	8	56	67
		% within Training Programme	2.5%	11.9%	83.8%	100.0%
		% within Attitude Towards Programme	0 %	2.5 %	68.2%	70.5%
Total		Count	3	9	82	95
		% within Training Programme	2.3%	9.5%	86.3%	100.0%
		% within Attitude Towards Programme	100.0%	100.0%	100.0%	100.0%

$\chi^2 = 2.098$  P-value=0.718

The table-4, shows that, 29.5% of the respondents have already participated and trained. Further analysis shows that, 62.8% of the respondents are having higher attitude about the training programme offered by IECD, followed by 11.1% moderate level attitude and 33.3% low level attitude about the training programme. 70.5% are new to the training programme offered by IECD. Further analysis shows that, 68.2% of them shows higher attitude about the training programme, followed by 2.5% of moderate attitude and there are no respondents with low level attitude about the training programme. The  $\chi^2$  value of associated variables are 2.098 and their p-value is 0.718, so there is no significant association between the respondents participation in training programme for second time and their attitude towards skill development training programme in the study area. Hence the null hypothesis-2 is accepted as, **there is no significant association between respondents participation of training programme for the second time and their attitude towards the skill development training programme.**

**Hypothesis-3** There is no significant association between the respondents participation of training programme for the second time and the availability of course materials pertaining to the skill development training programme.

**Table-5** Chi-square Test showing the Association between Respondents Participation of Training Programme for Second Time and Availability of Course Materials in the Skill Development Training programme

			Availability of Course Materials			Total
			Low	Moderate	High	
Participation of Training programme for Second Time	Yes	Count	1	1	28	28
		% within Training Programme	1.0%	1.0%	98.0%	100.0%
		% within Material	0.0%	0.0%	29.5%	29.5%

	No	Count	4	5	58	67
		% within Training Programme	6.0%	7.5%	86.6%	100.0%
		% within Material	100.0%	100.0%	69.1%	70.5%
Total		Count	4	5	86	95
		% within Training Programme	4.3%	5.3%	90.5%	100.0%
		% within Material	100.0%	100.0%	100.0%	100.0%
$\chi^2=4.793$ , P-value=0.571						

Based on the table-5, it is clear that 70.5% of the respondents were new to the training programme, 69.1% of higher responses about the training materials provided to them in the study area and 29.5% of them have already participated in the training programme shows the same level of response that they have utilized the materials like CDs and other handouts provided in the training shows that IECD have provided sufficient course materials to the respondents in the study area. The  $\chi^2$  value shows that 4.793 and p-value is 0.571 which is not significant at 0.05 levels. Hence the null hypothesis-3 is accepted as, **there is no significant association between the respondent's participation of training programme for the second time and the availability of course materials in the skill development training programme.**

**Hypothesis-4** There will be no significant association between the respondents participation of training programme for the second time and the impact on teaching/learning of the skill development training programme.

**Table- 6 Chi-square Test showing the Association between the Respondents Participation of Training Programme for Second Time and Impacts on Teaching/Learning Aspects**

			Impact on training			Total
			Low	Moderate	High	
Participation of Training Programme for Second Time	Yes	Count	1	3	24	28
		% within Training Programme	3.6%	10.7%	85.7%	100.0%
		% within Impact	33.3%	42.9%	56.4%	29.5%
	No	Count	3	4	60	67
		% within Training Programme	4.5%	6.0%	89.6%	100.0%
		% within Impact	66.7%	57.1%	71.2%	70.5%
Total		Count	4	7	84	95
		% within Training Programme	4.3%	7.4%	88.5%	100.0%
		% within Impact	100.0%	100.0%	100.0%	100.0%
$\chi^2=1.106$ , P-value=0.954						

Table- 6 shows that, 70.5% of the respondents are new to the training programme. 71.2% respondents of the training programme shows impact on their class room teaching/learning at higher level, followed by 57.1% as moderate and 66.7% as low level. Likewise 29.5% of the respondents have already participated in the training programme, shows 56.4% higher impact on their class room teaching/learning after participated in the training programme followed by 42.9% moderate and 33.3% low level impact on teaching/learning after participated in the training programme. The  $\chi^2$  value is 1.106 and p-value of the same is 0.954, which is greater than 0.05 level of significance.

Hence the null hypothesis-4 is accepted as **there is no significant association between the respondent's participation of training programme for second time and the impact on teaching/learning of the skill development training programme.**

#### **VII. Findings and Conclusion**

Based on the general findings, maximum number of the respondents belongs to the age group of 26 to 35 years and most of them are post graduates, it shows that young employees can learn quickly to develop their technical knowledge. Maximum of the respondents are handling higher secondary school children, hence they can train those children easily for their higher education after the class of 10 and 12<sup>th</sup>. Most of the respondents are married and freshers, so that, they can show more involvement in participating the skill development training. Maximum of the respondents are earning upto Rs.10,000/- per month, hence they will increase their employment opportunities through skill education to earn more for future and maximum number of them are new trainees to perceive the skill development training with enthusiasm to share new knowledge. The highest mean scores show that, the skill development programme offered by IECD were efficiently developed, organized, scheduled and implemented. The course materials offered to them were also very useful for them. The overall training and practical lab facilities with computers and user friendly platforms were fulfilled the need of the trainees in the study area. Hypotheses related findings shows that, there are no significant association between the dependent variables of the respondents like, programme execution, teaching/learning approach, training impact on teaching, attitude on training and availability of teaching resources and the participation of the trainees for second time of the skill development training offered by IECD. Based on their suggestions, some of the respondents suggested to extend the duration of the training from 2 days to 3 days and the session's duration may also be extended extra 30 minutes.

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