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Exploring the Significance of the Skill Development Programme among the Computer Teachers in School Education

Parthasarathy. K[1], Aswini P.M[2] and Jayadurga R[3]

Professor and Director, Institute for Entrepreneurship and Career Development (Chair - School of Skill Development and Entrepreneurship), Bharathidasan University, Khajamalai Campus, Tiruchirappalli, India

Managing Trustee, PASS Foundation, Madipakkam, Chennai, India

Research Scholar, Department of Lifelong Learning, Bharathidasan University, Khajamalai Campus, Tiruchirappalli, India

ABSTRACT: Developing skill development in learning organizations will increase the career development and employment opportunities in our nation. It also increases better understanding of one's organization and exercising the skills in their respective fields. The purpose of this study is to abscess the significance of skill development programme among the computer teachers in school education. Descriptive research and judgment sampling method is used for sample selection of the study area (Tamil Nadu and Pondicherry). Institute of Entrepreneurship and Career Development (IECD), Bharathidasan University provides SUITS (Schools-University-Industry-Tie up-Scheme) for the school children training with computer programmes. 293 incharge staffs are the respondents answered the survey questionnaire and the responses are analyzed. Due to positive responses from the respondents of the study area there are no differences among the gender of the respondents and the assessment of skill development training. It shows that the involvement of students in SUITS programmes which is observed as an important aspect of the research.

KEYWORDS: Significance of Skill Development Training, Assessment of Skill Development Programme

I. INTRODUCTION

Skill development programmes are pertinent for the supply and demand of educational workforce in India. To meet the challenges and demand, our Government have to create a wide employment opportunities by eliminating the skill gaps in industries and institutions. **Sunita Sanghi and Sarija (2015),** explained that skill development training is essential for the academic employees to improve their student's educational level and also for their own self development. Central government programmes like 'pratham' allows school dropout girls to participate in skill development programmes which is a 15 month programme allows them to learn vocational skills and earn for their future and also make them pass their secondary level school education.

This had done for the young women welfare and future developments. Likewise all the skill development training in India develops employment opportunities, strengthening the delivery of framework through State and Central Government, investing financial resources in universities and colleges and strengthening the participation of primary and nursery schools in India. The present study deals with the skill development programme being implemented by IECD, Bharathidasan University in Tamil Nadu and Pondicherry, SUITS (Schools-University-Industry-Tie up-Scheme) for school students for developing their knowledge in the field of computer science.

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II. LITERATURE REVIEW

Parthasarathy K et.al., (2016), in their research described that, strategic planning of skill development will eliminate the skill gap in younger generation, securing their educational life and raising the global participation. Recognizing the employability skills developing our country's economy and meet the challenges in diversified market. To improve the labour market in every sector the government should develop training and education which are relevant to the employees in their institutions or companies

WEF (World Economic Forum), 2014, in their report for GACE (Global Agenda Council on Employment), explained that skills are one of the important assets of business personnel and employers. Many Indian organizations giving highest priority of providing the employment by skill-matching in individuals, because skills mismatches may cause very serious problems in workplace and family life. Hence it is essential to make skilled employees from their early stage.

Arvil R. Adams, (2007), in their article (HDNCYD) Human Development Network Children and Youth Department for the World Bank, explained that, workplace skill upgradation in very essential in both government and private organizations. It also empowers the organizational and institutional change, updating their qualification to next level and employee engagement leads to further development of children's education. In European countries they are implementing skill development programmes through tri-parties like NTA (National training Authority). Civil society, employee associations and some federations of particular sectors are benefited through skill development training to their existing employees. They have conducted workshops, conferences and symposiums to develop employability skills. In India 81,239,667 secondary level school children are enrolled in Technical and Vocational Programmes (TVP) in their schools, which are the largest population of youths in the world. This shows the importance of vocational skills in our country.

III. PROBLEM AND OBJECTIVES OF THE STUDY

- To find out the population of male and female respondents in the study area.
- To find out the differences between gender and the assessment of skill development programme of SUITS in the study area.

IV. ABOUT THE STUDY AREA

IECD at Bharathidasan University, Tiruchirappalli is the largest institution educating skill development programmes to over 80,000 students every year especially in the state of TamilNadu and Pondicherry schools in India. The principle author is operating the whole programme 8 years successfully. The present study deals with assessing the skill development programmes implemented to school's computer science teachers in the academic year of 2016 to 2017 in TamilNadu and Pondicherry.

V. RESEARCH METHODOLOGY

Descriptive research method used in the present study at IECD is used to develop and generate the theory of assessing the responses of school teachers who are the in-charge staffs of SUITS programme. Judgment sampling method is used to select the sample population of the study from 293 schools in Tamil Nadu and Pondicherry. The survey questionnaire is of 5-point scale. Inferential statistics is used to find the differences between dependent and independent variables of the study. Hence t-test is analyzed with SPSS software.

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VI. PROFILE OF THE STUDY

Table- 1 Percentage Analysis of the Gender of the Respondents in the study area

Variable		Frequency	Percent
Gender/Sex	Male	70	23.9
	Female	223	76.1
Total (N)		**293**	**100%**

The table-1 reveals that 76.1% of the respondents in the study area are female and only one third of the sample population are male respondents (23.9%) in the study area. It is predicted that the female school teachers are more convenient to handle the computer programmes to their school children patiently than the male teachers and also the female respondents shows their involvement in developing their career than male.

VII. HYPOTHESES AND FINDINGS OF THE STUDY

T-Test Showing the Difference between Gender and Evaluation of SUITS Programme

T-test is used to compare between any two groups by testing the equality of variances and equality of their mean scores, especially used under analyzing the null hypothesis. The t-test is one of the inferential statistics, by analyzing the population and describing the quantity of data among the selected sample population. It also can analyses the differences between two mean averages or mean scores which are derived from two different variables i.e., both the groups are not dependent to one another. The respondents who are composed of with two different groups of individuals. In the present study the researchers have used both male and female group to perform independent t-test. The gender of the respondents doesn't indicate the scores from the female group depend on the male group. That is why the independent t-test here is analyzing the mean score of male and female which are statistically significant or not to explore the significance of the skill development programme.

The importance this test is to estimate the equal variances obtain from both male and female group. F value of the t-test is calculated for the combined significant value of difference between variations of both male and female groups in the present study. If the significant value (or p-value which is the calculated probability value) listed under levene's test is greater than 0.05, then their variances are equal undoubtedly or if those values lesser than 0.05 means they are unequal among them. If the produced significant value of the levene's test is not significant, it doesn't affect the obtained value of the research. Hence, in the independent t-test, equal variances which assumed and not assumed are developed as outcomes. Table- shows that significant values of levene's test is greater than 0.05 in equal variances assumed, hence the researchers used the equal variances assumed part for interpreting the results.

$$t = \frac{M_x - M_y}{\sqrt{\left[\frac{\left(\Sigma X^2 - \frac{(\Sigma X)^2}{N_x}\right) + \left(\Sigma Y^2 - \frac{(\Sigma Y)^2}{N_y}\right)}{N_x + N_y - 2}\right] \cdot \left[\frac{1}{N_x} + \frac{1}{N_y}\right]}}$$

The t-test for equality of means produce the t ratio value of inferential statistics (exact obtained value of independent t-test). The above formulae indicates that M_x and M_y denotes the mean for male and female group and the values X and Y denotes the mean scores of the group. N_x and N_y denotes the number of scores in both male and female group. Σ denotes to sum the mean scores of samples of the groups.

Here the population of male respondents are 70 and female respondents are 223. The degrees of freedom (df) is obtained from the formulae **[df=n_1-1 + n_2-1]**, where n_1=70 male respondents and n_2=223 female respondents, **[df-**

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(70-1) + (223-1) = 291]. 291 is the df value for the present study. The Sig. (2-tailed) column gives the exact value which associated with t value and degrees of freedom.

Hypothesis-1 There is no significant difference between the gender and updated course materials of the skill development programme.

Table-2 T-test showing the Differences between the Gender and Updated Course Materials of the Skill Development Programme

Assessment of the Training		Gender/ Sex	Mean	SD	Levene's Test for Equality of Variances		t-test for Equality of Means	
					F	Sig.	t value	Sig. (2-tailed)
Updated Course Materials	Equal variances assumed	Male	4.33	0.79	1.04	0.31	0.33	0.74
		Female	4.29	0.95				
	Equal variances not assumed						0.36	0.72

Table-2 shows that the means score of male respondents is 4.33, its SD is 0.79 and the mean score of the female respondents is 4.29, its SD value is 0.95. The F statistics value of combined groups is 1.04 and its calculated probability value is 0.31. The t ratio value is 0.33 and its calculate probability value is 0.74 is greater than 5% level of significance. This indicates that there is no significant difference between the gender and the updated course materials of the skill development programme. Hence the Hypothesis-1 is accepted.

Hypothesis-2 There is no significant difference between the gender and accessible requirements of the skill development programme.

Table-3 T-test showing the Differences between the Gender and Accessible Requirements of the Skill Development Programme

Assessment of the Training		Gender/ Sex	Mean	SD	Levene's Test for Equality of Variances		t-test for Equality of Means	
					F	Sig.	t value	Sig. (2-tailed)
Accessible Requirements	Equal variances assumed	Male	4.46	0.77	0.86	0.36	0.66	0.74
		Female	4.38	0.92				
	Equal variances not assumed						0.72	0.72

Table-3 shows that the means score of male respondents is 4.46, its SD is 0.77 and the mean score of the female respondents is 4.38, its SD value is 0.92. The F statistics value of combined groups is 0.86 and its calculated probability value is 0.36. The t ratio value is 0.66 and its calculate probability value is 0.74 is greater than 5% level of significance. This indicates that there is no significant difference between the gender and the accessible requirements of the skill development programme. Hence the Hypothesis-2 is accepted.

Hypothesis-3 There is no significant difference between the gender and efficient administration of the skill development programme.

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Table-4 T-test showing the Differences between the Gender and Efficient Administration of the Skill Development Programme

Assessment of the Training		Gender/ Sex	Mean	SD	Levene's Test for Equality of Variances		t-test for Equality of Means	
					F	Sig.	t value	Sig. (2-tailed)
Efficient Administration	Equal variances assumed	Male	4.47	0.79	0.46	0.50	1.29	0.51
		Female	4.32	0.89				
	Equal variances not assumed						1.37	0.47

Table-4 shows that the means score of male respondents is 4.47, its SD is 0.79 and the mean score of the female respondents is 4.32, its SD value is 0.89. The F statistics value of combined groups is 0.46 and its calculated probability value is 0.50. The t ratio value is 1.29 and its calculate probability value is 0.51 is greater than 5% level of significance. This indicates that there is no significant difference between the gender and the efficient administration of the skill development programme. Hence the Hypothesis-3 is accepted.

Hypothesis-4 There is no significant difference between the gender and ample time to complete syllabus of the skill development programme.

Table-5 T-test showing the Differences between the Gender and ample time to complete Syllabus of the Skill Development Programme

Assessment of the Training		Gender/ Sex	Mean	SD	Levene's Test for Equality of Variances		t-test for Equality of Means	
					F	Sig.	t value	Sig. (2-tailed)
Ample time to complete Syllabus	Equal variances assumed	Male	4.19	0.91	0.09	0.76	0.23	0.19
		Female	4.16	0.94				
	Equal variances not assumed						0.23	0.17

Table-5 shows that the means score of male respondents is 4.19, its SD is 0.91 and the mean score of the female respondents is 4.16, its SD value is 0.94. The F statistics value of combined groups is 0.09 and its calculated probability value is 0.76. The t ratio value is 0.23 and its calculate probability value is 0.19 is greater than 5% level of significance. This indicates that there is no significant difference between the gender and ample time to complete syllabus of the skill development programme. Hence the Hypothesis-4 is accepted.

Hypothesis-5 There is no significant difference between the gender and systematic implementation of the skill development programme.

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Table-6 T-test showing the Differences between the Gender and Systematic Implementation of the Skill Development Programme

Assessment of the Training		Gender/ Sex	Mean	SD	Levene's Test for Equality of Variances		t-test for Equality of Means	
					F	Sig.	t value	Sig. (2-tailed)
Systematic Implementation	Equal variances assumed	Male	4.46	0.90	0.48	0.49	0.98	0.82
		Female	4.33	0.98				
	Equal variances not assumed						1.03	0.82

Table-6 shows that the means score of male respondents is 4.46, its SD is 0.90 and the mean score of the female respondents is 4.33, its SD value is 0.98. The F statistics value of combined groups is 0.48 and its calculated probability value is 0.49. The t ratio value is 0.98 and its calculate probability value is 0.82 is greater than 5% level of significance. This indicates that there is no significant difference between the gender and systematic implementation of the skill development programme. Hence the Hypothesis-5 is accepted.

Hypothesis-6 There is no significant difference between the gender and proficiently designed course materials of the skill development programme.

Table-7 T-test showing the Differences between the Gender and Proficiently Designed Course Materials of the Skill Development Programme

Assessment of the Training		Gender / Sex	Mean	SD	Levene's Test for Equality of Variances		t-test for Equality of Means	
					F	Sig.	t value	Sig. (2-tailed)
Proficiently Designed Course Materials	Equal variances assumed	Male	4.36	0.76	2.33	0.13	0.44	0.34
		Female	4.30	0.98				
	Equal variances not assumed						0.50	0.30

Table-7 shows that the means score of male respondents is 4.36, its SD is 0.76 and the mean score of the female respondents is 4.30, its SD value is 0.98. The F statistics value of combined groups is 2.33 and its calculated probability value is 0.13. The t ratio value is 0.44 and its calculate probability value is 0.34 is greater than 5% level of significance. This indicates that there is no significant difference between the gender and proficiently designed course materials of the skill development programme. Hence the Hypothesis-6 is accepted.

Hypothesis-7 There is no significant difference between the gender and appropriate tutoring time of the skill development programme.

Table-8 T-test showing the Differences between the Gender and Appropriate Tutoring Time of the Skill Development Programme

Assessment of the Training		Gender / Sex	Mean	SD	Levene's Test for Equality of Variances		t-test for Equality of Means	
					F	Sig.	t value	Sig. (2-tailed)
Appropriate Tutoring Time	Equal variances assumed	Male	3.91	1.07	0.68	0.41	-0.20	0.84
		Female	3.94	0.98				
	Equal variances not assumed						-0.19	0.85

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Table-8 shows that the means score of male respondents is 3.91, its SD is 10.7 and the mean score of the female respondents is 3.94, its SD value is 0.98. The F statistics value of combined groups is 0.68 and its calculated probability value is 0.41. The t ratio value is -0.2 (the negative value doesn't affect the probability value) and its calculate probability value is 0.84 is greater than 5% level of significance. This indicates that there is no significant difference between the gender and appropriate tutoring time of the skill development programme. Hence the Hypothesis-7 is accepted.

Hypothesis-8 There is no significant difference between the gender and accomplishing the complete syllabus of the skill development programme.

Table-9 T-test showing the Differences between the Gender and Accomplishing Complete Syllabus of the Skill Development Programme

Assessment of the Training		Gender/ Sex	Mean	SD	Levene's Test for Equality of Variances		t-test for Equality of Means	
					F	Sig.	t value	Sig. (2-tailed)
Accomplishing Complete Syllabus	**Equal variances assumed**	**Male**	**4.14**	**0.98**	**0.66**	**0.42**	**0.29**	**0.77**
		Female	**4.10**	**1.00**				
	Equal variances not assumed						0.29	0.77

Table-9 shows that the means score of male respondents is 4.14, its SD is 0.98 and the mean score of the female respondents is 4.10, its SD value is 1. The F statistics value of combined groups is 0.66 and its calculated probability value is 0.42. The t ratio value is 0.29 and its calculate probability value is 0.77 is greater than 5% level of significance. This indicates that there is no significant difference between the gender and accomplishing complete syllabus of the skill development programme. Hence the Hypothesis-8 is accepted.

Hypothesis-9 There is no significant difference between the gender usefulness of the training of the skill development programme.

Table-10 T-test showing the Differences between the Gender and Usefulness of the Training of the Skill Development Programme

Assessment of the Training		Gender/ Sex	Mean	SD	Levene's Test for Equality of Variances		t-test for Equality of Means	
					F	Sig.	t value	Sig. (2-tailed)
Usefulness of the Training	**Equal variances assumed**	**Male**	**4.44**	**0.86**	**1.22**	**0.27**	**0.82**	**0.42**
		Female	**4.33**	**1.08**				
	Equal variances not assumed						0.92	0.36

Table-10 shows that the means score of male respondents is 4.44, its SD is 0.86 and the mean score of the female respondents is 4.33, its SD value is 1.08. The F statistics value of combined groups is 1.22 and its calculated probability value is 0.27. The t ratio value is 0.82 and its calculate probability value is 0.42 is greater than 5% level of significance. This indicates that there is no significant difference between the gender and usefulness of training of the skill development programme. Hence the Hypothesis-9 is accepted.

Hypothesis-10 There is no significant difference between the gender and engrossment and attentiveness of students of the skill development programme

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Table-11 T-test showing the Differences between the Gender and Engrossment and Attentiveness of Students of the Skill Development Programme

Assessment of the Training		Gender/ Sex	Mean	SD	Levene's Test for Equality of Variances		t-test for Equality of Means	
					F	Sig.	t value	Sig. (2-tailed)
Engrossment & Attentiveness of Students	Equal variances assumed	Male	4.49	0.74	0.19	0.67	-0.49	0.62
		Female	4.55	0.94				
	Equal variances not assumed						-0.57	0.57

Table-11 shows that the means score of male respondents is 4.49, its SD is 0.74 and the mean score of the female respondents is 4.55, its SD value is 0.94. These mean score values are the highest mean scores of all the mean values calculated from both male and female groups. The F statistics value of combined groups is 0.19 and its calculated probability value is 0.67. The t ratio value is -0.49 and its calculate probability value is 0.62 is greater than 5% level of significance. This indicates that there is no significant difference between the gender and engrossment and attentiveness of the skill development programme. Hence the Hypothesis-10 is accepted.

Table- 12 Distribution of the Dependent Variables of the Skill Development Programme Assessment

Evaluation of Skill Development	Updated Course Materials	Accessible Requirements	Efficient Administration	Ample time to complete Syllabus	Systematic Implementation	Proficiently Designed Course Materials	Appropriate Tutoring Time	Accomplishing Complete Syllabus	Usefulness of the Training	Engrossment & Attentiveness of Students
Strongly Disagree	9 (3.1)	8 (2.7)	5 (1.7)	5 (1.7)	11 (3.8)	9 (3.1)	7 (2.4)	9 (3.1)	14 (4.8)	10 (3.4)
Disagree	7 (2.4)	8 (2.7)	11 (3.8)	16 (5.5)	7 (2.4)	11 (3.8)	24 (8.2)	16 (5.5)	7 (2.4)	4 (1.4)
Neutral	17 (5.8)	8 (2.7)	13 (4.4)	28 (9.6)	15 (5.1)	9 (3.1)	42 (14.3)	28 (9.6)	17 (5.8)	9 (3.1)
Agree	115 (39.2)	105 (35.8)	110 (37.5)	121 (41.3)	93 (31.7)	114 (38.9)	92 (31.4)	120 (41)	78 (26.6)	67 (22.9)
Strongly Agree	**145 (49.5)**	**164 (56)**	**154 (52.6)**	**123 (42)**	**167 (57)**	**150 (51.2)**	**128 (43.7)**	**120 (41)**	**177 (60.4)**	**203 (69.3)**

From the table-12, it is clear that maximum number of respondents answered strongly agree to all the variables of the skill development training provided in the study area. 69.3% is the majority of respondents responded about the variable engrossment and attentiveness of students in the study area. The above t-test results interpret about the responses from the female respondents who are all the majority of responses in the study area. Female respondents are more patient and convenient in teaching the students. By personal observation of the researchers in the study area that, most of the primary and nursery schools are extending the SUITS programme papers in the evening time after 4.30pm i.e., after their closing of school time. The female computer teachers shows care about the students education and they have thought them with endurance and sufferance which make the school children pay their attention and involvement in learning computer programmes. This shows the ability of female respondents and the engrossment of the students in the study area.

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VIII. CONCLUSION

The present study analyses the significance of skill development training among the gender of the respondents in the study area. Majority of the respondents of the study area are female computer science teachers handling SUITS programmes to school going children in and around TamilNadu and Pondicherry. The result shows that there are no differences among the gender of the respondents and the assessment of skill development training. The distribution of the dependent variables also shows that the involvement of students in SUITS programmes is observed as an important aspect of the research. Most of the schools have conducted SUITS as special programmes after the school time. The teachers educate the student enthusiastically and made the children more involved and engrossed with the computer programmes and motivated to develop their computer knowledge undoubtedly. This is one of the successful factors for SUITS programme practiced in TamilNadu and Pondicherry.

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