ADVANCED COMPUTER TRAINING COURSE: AN INITIATIVE TOWARDS ENHANCING THE SKILL OF VISUALLY IMPAIRED PERSONS- A PART OF CSR PROGRAM

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ABSTRACT

People are getting more aware about the potential capabilities of a visually impaired person. Thus, with the growing awareness of the abilities of the visually impaired population, few business houses are coming forward in including a visually impaired person in their workforce.
Advanced Computer Training Course(ACTC) conducted by TCS, as a part of their CSR program, to empower the visually impaired population is one of its kind initiative.
Through this paper the researcher aims to analyse the efficiency of CSR programme in empowering the visually impaired population, by conducting survey on 60 trainees from Mumbai centre. The findings states that there has been a significant improvement on the employment front after the training program. It is noteworthy that as much as 60% of the trainees were unemployed prior to the training, against a mere 33.3% unemployment post the training.

Keywords: CSR*, Screen reader, Empowerment, visually impaired, livelihood program.*

INTRODUCTION

Every organization, irrespective of whether it being a state owned or a private business unit has to render certain social obligation. Prior to 1965, Corporate Social Responsibility was regarded as a voluntary exercise. In 1965, Lal Bahadur Shastri, then the prime minister of India, presided over the national meeting and passed a declaration on Social Responsibility. The concept of Corporate Social Responsibility has gained greater importance in the recent years. Now, Government of India imposed statutory obligation on Companies to take up CSR projects towards social welfare activities through Enactment of Companies Act, 2013. In India, we have about 26,810,557 persons with some form of disability (2.21% of the total population of India), out of which 5,032,463 are visually impaired (Census of India, 2011). With inclusivity being stated as one of the goals of sustainable development goals, focused initiatives for the welfare of persons with disability becomes essential

(Aditi Nath, 2017). The National Policy for Persons with Disabilities (2006) recognizes that Persons with Disabilities are valuable human resources for the country and seeks to create an environment that provides equal opportunities, protection of their rights and full participation in society. Most of the state owned and private entities have been seen running CSR programs, with the view of realising the goal of developing the untapped human resource (Sharma, 2009). This CSR initiatives also aids in bolstering the market standing of the enterprises, which are commonly used as strategic business component (Gupta, 2009).

TCS-Maitree, has pioneered a one of its kind Advanced Computer Training Centre (ACTC) in India. The center offers courses that are designed around specific industry profiles, helping them gain the domain and technology training necessary to get employment. This initiative, while improving the prospects of India's visually impaired workforce, also aims to change the perspectives of employers regarding their potential and versatility. with the growing competition in the labour market, critical life skill programmes has been identified as tools to empower the differently abled youth and preparing them for competitive labour market (Kingsnorth,2007). This paper studies the effectiveness of skill enhancement program conducted by TCS, under the banner ACTC (Advanced Computer Training Course).

ACTC Maitree has been running its campaign since 2008 and has successfully catered computer skills to more than 300 visually impaired candidates across the nation. The main goal of the program is to develop the technical as well as the soft skill which is in line with the present corporate culture and to move the visually impaired workforce a step closer to independence. Similar program named 'Caring Family Enhancement (CAFÉ)', was undertaken to enhance the skill of persons with orthopedic Impairment in South Korea (Nachebe, 2019).

Visually Impaired students face numerous problems in communicating effectively with the teaching tools used in the conventional classroom (Hasselbring, 2000). As a measure in combating this gap, this paper has focused on various assistive devices which can enhance the participation of specially abled in the mainstream education system. This paper specifically aims at studying the effectiveness and efficiency of the computer literacy in the lives of visually impaired population. With the aid of infrastructure, such as screen readers, a visually impaired person can be made to work as effectively as a sighted employee. This study will provide greater insight to employers in making work place accommodation for a visually impaired employee and moving a step closer to inclusivity at work place. Computer has indeed, empowered students in learning mathematics and working on graphs and diagrams independently (Dick, 1997).

RESEARCH METHODOLOGY

Research Design: In order to properly carry out the study, Descriptive Research Design have been used.

Population of the study: The population under consideration for the study is limited to all the trainees who have participated in the said training in the Mumbai Center till the commencement of the study, which are 125.

Sample Size: 60 visually impaired trainees have been selected as the sample size for the study.
Sampling Technique: Under probability sampling technique, the study has adapted the simple random sampling technique.
Tools of data collection: Primary Data refers to the firsthand information available to the study. Structured questionnaire has been used in this study to collect the primary data. Books, articles and related government websites were used in collecting the secondary data used for the study.
Analytical tools: Percentage, Mean, cross tabulation, Z-test and Chi-square test were used in analyzing the data.

The Chi-square test
For a 2x2 contingency table

a	*B*
c	*D*

The Chi-square statistic is given by

$$\chi^2 = \sum \frac{(O_{ij}-E_{ij})^2}{E_{ij}}$$

where O_{ij}= observed frequency, E_{ij}= expected frequency for i= 1, 2; j = 1, 2,where

$O_{11} = a$, $O_{12} = b$, $O_{21} = c$, $O_{22} = d$ and

$$E_{11} = \frac{(a+b)(a+c)}{N}, \quad E_{12} = \frac{(a+b)(b+d)}{N},$$

$$E_{21} = \frac{(a+b)(b+d)}{N}, \quad E_{22} = \frac{(b+d)(c+d)}{N}, \quad N=a+b+c+d$$

The value of this chi-square statistic (calculated value) is compared with the standard value of chi-square (tabulated value) with some pre-assigned probability level of significance. If this calculated value is greater than the corresponding tabulated value than the null hypothesis is rejected otherwise it may be accepted.

Z-test for single proportion
If X represents the number of successes in n independent trials with constant probability P of success for each trial, where n is sufficiently large, then z-test for single proportion is

$$Z = \frac{(X-E(X))}{\sqrt{(v(X)}} = \frac{(X-nP)}{\sqrt{nPQ}} \sim N(0,1)$$

If the value of

- $|Z| > 3$, reject the null hypothesis.
- $|Z| < 2.58$, accept the null hypothesis at 1% probability level of significance.
- $|Z| < 1.96$, accept the null hypothesis at 5% probability level of significance.

ANALYSIS

50% of the trainees belong to the age group of 26-30 years, followed by 20% from the age group of 20-25 years. 76.7% of the respondents were male, whereas 23.3% of them were female. Among the trainees, 53.3% were blind, whereas 46.7% were found to have low vision. 56.7% of the trainees were graduates, followed by 40% post graduates, and 3.3% Diploma holders. Majority of the respondents, i.e., 73.3% had English as their medium of education, whereas 26.7% had other vernacular languages as their medium Of education (See Table 3.1). 16.67% of the total respondents had basic level of computer education prior to the training, of

which 20% were blind and the remaining 80% belong to person with low vision, from which 60% rated the session to be good and remaining 40% rated the session to be very good; 43.33% had moderate level of computer education, of which 38.46% were blind and 61.53% were low vision, from which 69.23% rating the session to be good and 7.69% rating the session as very good. 40% of the total respondents had advanced level of computer education, of which 33.33% were blind and the remaining 66.67% were low vision, from which 16.67% rating the session to be poor (See Table 3.2). 40% of the respondents had employment prior to the training, whereas 60% of them were unemployed. From among the employed respondents, i.e., 40%, 83.3% belonged to the category of low vision, and the remaining 16.7% were blind. Out of the 60% of the unemployed respondents, 77.8% were blind (See Table 3.3). 46.7% of the respondents have found that trainer's skill and knowledge have helped them in enhancing their skill, followed by 36.7% have found the personality development sessions especially helpful in developing their skill. 6.7% of the respondents found fellow trainees' help to be responsible for their skill development during the program, while another 6.7% of the trainees have found other factors to be responsible for the same. A minor 3.3% of the respondents have found corporate and industrial visits to be of significant importance in their skill development (See Table 3.4). 73.3% of the respondents have found employment post ACTC training, which was 40% prior to the training. Thus, it is evident that the stated program has a positive impact on the employment front of visually impaired trainees. Further, from the stated 73.3% of the employed trainees, 22.7% were directly assisted by TCS group in providing employment avenues (See Table 3.5). 43.3% of the respondents found that the program has helped them in growing more independent. 30% of the respondents found that the program has helped them in finding employment. 20% of the respondents found that the training has helped them in improving other factors, such as mobility, interpersonal skills, etc. A minor 6.7% of the respondents have found the training helpful in setting up their own business (See Table 3.6).

CHI-SQUARE TEST: 1

A chi-square test to examine whether the training is equally beneficial for both blind and low vision trainees is carried out.

The null hypothesis is:

H0: Both blind and low vision trainees are equally benefited in terms of employment/ independence (service or self employed) from the training.

Here,

O_{11}= 28, O_{12}= 4, O_{21}= 20, O_{22}= 8, E_{11}= 25.6, E_{12}= 6.4, E_{21}= 22.4, E_{22}= 5.6

Therefore, calculated value of Chi-sq (χ^2)= 2.404

And χ^2 (1,1)= 3.841 (at 5% probability level of significance) > Calculated value of Chi-sq.

Therefore, the null hypothesis is accepted at 5% probability level of significance. Thus it is established that the training given by ACTC is fruitful for both blind and low vision trainees.

CHI-SQUARE TEST: 2

The null hypothesis is:

H0: The nature of employment is independent of gender.

Here,
O_{11}= 32, O_{12}= 8, O_{21}= 13, O_{22}= 7, E_{11}= 30, E_{12}= 10, E_{21}= 15, E_{22}= 5

Therefore, calculated value of Chi-sq (χ^2)= 1.6
And χ^2 (1,1)= 3.841 (at 5% probability level of significance) > Calculated value of Chi-sq.
Therefore, the null hypothesis is accepted at 5% probability level of significance.

Z-TEST:

A large sample test (Z-test), as the sample size is 60>25, for single proportion has been carried out with a null hypothesis that the ACTC Maitree initiative empowers the visually impaired individuals. The p- value is found to be 1.7188 which is greater than 0.05 and leading to the acceptance of the null hypothesis at 5% probability level of significance and it is thus statistically established that the ACTC Maitree initiative empowers the visually impaired individuals.

RESULTS

1. 43.3% of the trainees enrolling into ACTC had moderate level of computer knowledge prior to them joining the training program, of which people with low vision constitutes 61.5%, and the remaining 38.5% are blind. 83.3% of the respondents having advanced level of computer knowledge are blind.
2. 43.3% of the trainees were found to be satisfied with the training module used during the ACTC program, along with 16.7% of the trainees being highly satisfied with the training module used during the program.
3. Trainees having basic level of computer education prior to the ACTC training were found to be highly satisfied with the technical session provided during the program, with 50% of the trainees who graded the technical sessions to be very good, belonging to the said group. Whereas trainees having advanced level of computer education prior to the program were found to be less satisfied with the technical sessions provided during the program
4. 90% of the trainees who graded the soft skill sessions to be very good belonged to an English medium of education, while the number of trainees coming from vernacular backgrounds of education was found to be less satisfied with the soft skill sessions.
5. 43.3% of the trainees are found to have grown more independent after attending the program. The training has empowered them in dealing with the routine tasks without any dependence on others.
6. It is statistically established with 5% probability level of significance that
— the training has empowered the visually impaired individuals.
— both blind and low vision trainees are equally benefited in terms of employment/ independence (service or self employed) from the training.
— the employment scenario after training is gender independent
7. Prior to the training, 60% of the trainees were found to be unemployed, which has significantly reduced to 33.3% after successful completion of the training program.
8. 73.3% of the trainees were successful in getting employed after the successful completion of the training program. Of that, 22.7% received assistance from ACTC in getting employed.

CONCLUSION

With the goal of realizing governments aim of empowering the differently abled population, most of the corporate houses are found to have adopted various livelihood program, as a part of their CSR program. With the study conducted over 60 visually impaired trainees, ACTC program is found successful in enhancing the skill of the visually impaired trainees. From among the trainees enrolled in Mumbai, 73.3% of them were successful in getting employment after completing the training, of which 22.7% were assisted by ACTC in finding employment. Moreover, the program has resulted in growth of self-confidence in visually impaired persons, therefore making them more independent and empowered.

RECOMMENDATION

Based on the results derived from the present study, few of the recommendation has been put forth, which have been listed as below:

The state governments in collaboration with the concerned central ministry can take up the stated model for empowering the visually impaired population in the state by collaborating with the associations and organizations providing livelihood program for the stated population.

The NGOs and associations, exclusively working for the differently abled population, should take active part in making the visually impaired persons aware of such training program.

State colleges, institutes and universities can made provision for such programs as an welfare program for need based people.

References

1. Abbott, C., & Cribb, A. (2002). Special Schools, Inclusion and the World Wide Web - The emerging research agenda. British Journal of Educational Technology, 32(3), 331-342. doi:10.1111/1467-8535.00202
2. Banerjee, S. B. (2008). Corporate Social Responsibility: The Good, the Bad and the Ugly. Association for Critical Sociology, 34(1), 30 pages. doi:10.1177/0896920507084623
3. Chaudhary, N. K. (2009). Facilitators & Bottlenecks of Corporate Social Responsibility. Indian Journal of Industrial Relations, 44(3), 386-395. Retrieved from https://www.jstor.org/stable/27768211
4. Davies, D. K., Stock, S. E., & Wehmeyer, M. L. (2002). Enhancing Independent Task Performance for Individuals with Mental Retardation Through Use of a Handheld Self-Directed Visual and Audio Prompting System. Education and Training in Mental Retardation and Developmental Disabilities, 37(2), 12 pages.
5. Dick, T., & Kubiak, E. (1997). Issues and Aids for Teaching Mathematics to the Blind. The Mathematics Teacher, 90(5), 344-349. Retrieved from https://www.jstor.org/stable/27970181
6. G, S. W. (2007). Problems and Prospects in Employment and Job Retention of the Blind and Visually Impaired in the United States: A Future Concern of Special Education. International Journal of Special Education, 22(1), 53-58. Retrieved from http://www.internationaljournalofspecialeducation.com
7. Gupta, S., & Sharma, N. (2009). CSR- A Business Opportunity. International Journal of Business and Globalisation, 44(3), 6. Retrieved from http://www.publishingindia.com › GetBrochure

8. Hasselbring, T. S., & Williams, C. H. (2000). Use of Computer Technology to Help Students with Special Needs. The Future of Children, 10(2), 102-122. doi:https://doi.org/10.2307/1602691
9. Kachaka, H. (2012). Challenges faced by Women With Visual Impairment in Living a Sustainable Livelihood. Journal of Law and Social Sciences, 1(1), 129-136. doi:https://doi.org/10.53974/unza.jlss.1.1.373
10. Kingsnorth, S., Healy, H., & Macarthur, C. (2007). Preparing for adulthood: a systematic review of life skill programs for youth with physical disabilities. The Journal of adolescent health, 41(4), 323-332. doi:10.1016/j.jadohealth.2007.06.007.
11. Nnachebe, G., & Peace, N. (2019). Ability in Disability: Promoting Entrepreneurial Skill Acquisition. World Journal of Entrepreneurial Development Studies, 4(1), 14 pages.
12. Rajamohan, S., & Devi, E. S. (2020). ROLES AND RESPONSIBILITY OF THE NATIONAL INSTITUTE FOR THE EMPOWERMENT OF PERSON WITH VISUAL DISABILITIES IN INDIA: A STUDY. International Journal of Management, 11(9), 408-417. doi:10.34218/IJM.11.9.2020.038
13. Saine, N. L., Lerkkanen, K., Ahonen, T., & Tolvanen, A. (2011). Computer-Assisted Remedial Reading Intervention for School Beginners at Risk for Reading Disability. Child Development, 82(3), 1013-1028. doi:10.1111/j.1467-8624.2011.01580.x
14. Sharma, S. (2013). Corporate Social Responsibility in India- The Emerging Discourse & Concerns. Indian Journal of Industrial Relations, 48(4), 582-596. Retrieved from https://www.jstor.org/stable/23509816
15. Srivastava, A. K. (2012). Corporate Social Responsibility: A Case Study Of TATA Group. Journal of Business and Management, 3(5), 17-27. doi:10.9790/487X-0351727
16. Standen, P. J., & Brown, D. J. (2005). Virtual reality in the rehabilitation of people with intellectual disabilities: review. Cyberpsychology & behavior : the impact of the Internet, multimedia and virtual reality on behavior and society, 8(3), 272-282. doi:10.1089/cpb.2005.8.272
17. Wehmeyer, M. L., & Bolding, N. (2001). Enhanced Self-Determination of Adults with Mental Retardation as an Outcome of Moving to Community-Based Work or Living Environments. Journal of Intellectual Disability Research, 45(5), 371-383. doi:10.1046/j.1365-2788.2001.00342.x

LIST OF TABLES

Table 3.1 Profile of the trainees

Age of the respondent			**Gender of the respondent**			**Type of impairment**			**Educational Qualification**			**Medium of Education**		
Group	Frequency	%	Gender	Frequency	%	Type	Frequency	%	Qualification	Frequency	%	Medium	Frequency	%
20-25 years	12	20	Male	46	76.7	Low Vision	28	46.7	Graduate	34	56.7	English	44	73.3
26-30 years	30	50	Female	14	23.3	Blind	32	53.3	Post Graduate	24	40	Vernacular	16	26.7
31-35 years	10	16.7	Total	60	100	Total	60	100	Diploma	2	3.3	Total	60	100
36-40 years	6	10							Total	60	100			
41 & above	2	3.3												
Total	60	100												

Source: Primary data

Table 3.2. Impairment, level of computer education and technical session.

Level of Computer Education	**Type of Impairment**			**Technical Session**			
	Blind	Low Vision	Total	Poor	Fair	Good	Very Good
Basic Level	2	8	10	0	0	6	4
Moderate Level	10	16	26	2	4	18	2
Advanced Level	20	4	24	4	10	8	2

Source: Primary data

Table 3.2. Impairment, level of computer education and technical session.

Employment status prior to ACTC	**Type of Impairment**		**Total**
	Blind	**Low Vision**	
Employed % of employment status prior to ACTC % of type of impairment	4 16.7% 12.5%	20 83.3% 71.4%	24 100% 40%

Unemployed % of employment status prior to ACTC % of type of impairment	28 77.8% 87.5%	8 22.2% 28.6%	36 100% 60%

Source: Primary data

Table 3.4. Factor responsible for enhancing the skill of the trainees.

Factor	Frequency
Trainer's skill and knowledge	28 (46%)
Fellow trainees' help	4 (6.7%)
Personality development sessions	22 (36.7)
Corporate and industrial visits	2 (3.3)
Others	4(6.7)
Total	60 (100%)

Source: Primary data

Table 3.5. Post training employment status.

Employment status post training	**Assistance from ACTC in finding employment**		**Total**
	Yes	No	
Employed	10	34	44
% out of employed trainee	22.7%	77.3%	100%
% out of total trainee	16.7%	56.7%	73.3%

Source: Primary data

Table 3.6. Impact of training on trainees.

Impact of training of Employee	Frequency
Getting employed	18 (30%)
Starting my own business	4 (6.7%)
Growing more independent	26 (43.3%)
Others	12 (20%)
Total	60 (100%)
Total	60 (100%)

Source: Primary data