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PROMOTION OF COMPUTER LITERACY IN RURAL SCHOOLS OF TAMIL NADU THROUGH SUITS – AN INNOVATIVE STUDY

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Abstract: Think of 1980's the usage of computers and the word software was very rare talk when compare with the late 1990's. After that, the computer pivoting a major role in all the places like super market, petrol bank, vegetable shop, all types of official use. Inculcating the computer knowledge is also very important for the all age group of people living in the world. Hence, huge number of computer centre was emerged in this time period for learning basic computers. At the same time, the mobile phone also emerged. These electronic gadgets attract children towards computer. Giving in-depth computer input knowledge to the children is not easy for parents as well as teachers. Today's children are future youth. Through School-University – Industry – Tie up Scheme (SUITS), Institute for Entrepreneurship and Career Development (IECD), Bharathidasan University has been promoting computer literacy for the school children in Tamil Nadu. The major findings of the study are ninety nine percent of the students say that SUITS is very constructive one for their best future.95 and 97 percent of the student's sys that the instructors conducted classes regularly and always the instructors instructs with SUITS books. 81, 96, 91 and 99 percent of the respondents together said that the syllabus is easily perceivable, relish to make entry in OMR sheets and adequate practical timing.

Key Words: Computer Literacy, Rural Schools, SUITS

Introduction
Background of the Study
The advanced technology is touching each and every part of the society and changing it drastically. There is one most important and inseparable aspect of the society that has also been bonded by new inventions and descriptions in education. Similar to that, urban people also influenced to some extent than rural one. In India, computer literacy is one of the issue, due to lack of easy accessibility, lack of teachers, interest in education, poverty, inadequate infrastructure, differentiation in gender, common syllabus are some of the issues which are set back the progress among rural masses. Nevertheless, most of the rural people are very much interested to avail and using advanced technologies by their own. Most of the teachers at the schools in the rural areas are not well self supported with the gadgets.

Kick Started
For sorting out of computer literacy, the principal author conceived and designed a scheme for school students called SUITS (School - University - Industry - Tie-Up - Scheme) at Institute for Entrepreneurship and Career Development (IECD), Bharathidasan University, Tamil Nadu, India, after a successful mini experimentation with school children during 2007-2008. The main aim of the scheme is to impart the skills in computer science to the interested students of the schools located in rural and tribal areas. For that, the principal author has created academic tie up with industries / institutions for dissemination and mobilization of schools

for SUITS. The SUITS consist of eight computer programme namely Graphic Design, Web Design, 2D Animation, Computer Basics, Office Automation, Programming Techniques, C Programming and C++ Programming. Each programme consists of three courses for the duration of 50 hours with 3 credits.

The technologies always attract the rural children towards learning. Specially this programme designed for school children, so, the specialized training is given for school teachers wise – 1. Pre-Service Training 2.In-Service Training 3.Post-Service Training. In the Pre-Service training programme, the subject experts explain about scheme of SUITS i.e students enrollment, mode of payment, allotment of week wise lesson plans, internal marks, mode of examination, practicing OMR sheets for final exams, practical examination, finalization of results and school toppers, rules and regulations for school enrollment and outstanding performance of the school award. The In-Service training programme usually conducts in the middle of the academic year and the Post-service training programme conducted in the end of the academic year every year. Every year the training manual prepared and distributed to all the teachers and principals for all schools under SUITS. Year by year this programme enhance the quality of the teachers. Among school children, computer education builds up the adequate confidence and decrease the gap between urban and rural education. Furthermore, rural India needs highest investment in this regard.

Review of Related Literature

The Hindu, (March 25, 2013) reported on, Mobile Computer Education for students in rural areas, US-based Juniper Networks provides funds to Aarti-VFT students of Zilla Parishad high schools in the rural areas getting exposure to computer education through the free Computer Education Programme launched by Aarti-Vijay Foundation Trust (VFT), an NGO. In general, rural students are deprived in securing employment due to lack of knowledge towards technology and some government schools have computers. At the same time due to power supply problems, lack of internet connection and the problems in getting qualified teachers in computer field in the rural areas. Under this scheme, mobile computer lab having 25 laptops with wireless data connection was developed in a van. Three qualified teachers take the mobile lab to the Zilla Parishad high schools in rural areas in Kadapa district and teach basics of computers and internet to eight and ninth class students. The mobile computer lab has reached out to 600 children of 10 Zilla Parishad high schools over the two month duration.

The Hindu (November 13, 2013), argued that digital education could act as a major trigger to overcome such issues as lack of textbooks and blackboards, but it too is faced with its own set of challenges. Huge investments, the need to develop digital content in regional languages and limited exposure of teachers to technology in rural areas are some of the deterrents. It is here that private organisations and digital service providers, along with the government, have a major role to play. They need to create technology-based applications that cater to all regions of the country and train teachers

Sridhar Iyer et.al, (2005), stated that the rural elementary schools students are active learners and expose the various computer applications with cost effective assistance. Computer based activities enhance the students and it can be availed for enriching skills in other curriculum based subjects. Confidence of the teachers with the technology has an optimistic impact on confidence of students.

Statement of the Problem

According to The Hindu, March, 15, 2017, on computing ability, rural India is lost in the woods, Just 8.8% of population can use PCs, Smart Phones: Study – The ability to use computers remains low in the country, in spite of campaigns for digitalization, an analysis of National Sample Survey Office

(NSSO) data reveals, an estimated 8.8 % of the rural population has computing ability. In urban areas, the figure is nearly four times higher, at 30.2 %. The computing skill is defined as a learner's knowledge to handle a laptop, desktop, note book, smart phone, palmtop and tablets. Among the major states in India, Kerala leads top in computers usage and knowledge, Chhattisgarh is the lowest rate and Tamil Nadu and Punjab states are in the middle.

The computer knowledge in tribal areas is still very low. The researchers said village or urban blocks were identified to ensure representation of all districts, and for each of these, only eight households (in some cases a varying number) were chosen for the final survey. At the same time, the IECD, Bharathidasan University initiated the very innovative and important scheme for benefit of the school students named SUITS (School University Industry Tie Up Scheme) during 2009 itself. The students studying C programme in select school of Tamil Nadu are considered for this study. The problem of the study is on promotion of computer literacy in rural schools of Tamil Nadu through SUITS.

Objectives of the Study

✓ To find out the general profile of the schools in the study area.

✓ To find out the general frequency of the respondents in the study area

✓ To find out the association between age and dependent variables

✓ To find out the interrelationships between success variables of the SUITS

Analysis and Interpretation

Table-1: PercentageAnalysis Shows the Frequency Distribution

S.No	Teaching and Learning Aspects	Frequency=200 Percentage=100	
		Agree	**Disagree**
1	Constructive programme for student's future	199 (99.5 %)	1 (0.5%)
2	Convenient learning materials	175 (87.5 %)	25 (12.5%)
3	Students relished by SUITS	200 (100 %)	-
4	Instructor's support to perform practical	194 (97 %)	6 (3 %)
5	Expeditious learning materials	197 (98.5 %)	3 (1.5 %)
6	Pragmatic tutoring	200 (100 %)	-
7	Instructor's concerning student's progress	192 (96 %)	8 (4 %)
8	Adequate tutoring materials	182 (91.0 %)	18 (9 %)
9	Instructors conduct regular classes	190 (95 %)	10 (5 %)
10	Instructors tutoring with SUITS books	194 (97.0 %)	6 (3 %)
11	Easily perceivable syllabus	163 (81.5 %)	37 (18.5 %)
12	Relish to make entry in OMR sheets	192 (96.0 %)	8 (4 %)
13	Complex learning syllabus	69 (34.5 %)	131 (65.6 %)
14	Adequate practical timing	183 (91.5 %)	17 (8.5 %)
15	SUITS intellectualized students	199 (99.5 %)	1 (.5)

Ninety nine percent of the students say that this programme is very constructive one for their best future. 87 percent of the students said that the learning materials are very convenient to study. Cent percent of the students said that they relished by the SUITS programme. Ninety seven and ninety eight percent of the students said that the instructors are very supportive for performing practical's well and the learning materials are expeditious one. Hundred percent of the students says that the tutors are pragmatic. Ninety six and ninety one percent of the students said that the instructors concerning students progress and they have adequate tutoring materials. 95 and 97 percent of the student's sys that the instructors conducted classes regularly and always the instructors

instructs with SUITS books. 81, 96, 91 and 99 percent of the respondents together said that the syllabus are easily perceivable, relish to make entry in OMR sheets, adequate practical timing and the SUITS students are always intellectualized. Sixty five percent of the students disagree the statement of complex learning syllabus.

Table 2: Distribution of Demographic Variables among the Selected Respondents in the Study Area

Demographic Variables		Frequency (N=269)	(Percentage)
Gender/Sex	Male	120	60
	Female	80	40
School Location	Rural	134	67
	Urban	66	33
Type of the School	Govt. Aided	3	1.5
	Private	197	98.5
Nature of the School	Boys	2	1.0
	Girls	5	2.5
	Co-Ed	193	96.5
School Level	Primary	17	8.5
	Secondary	73	36.5
	Higher Secondary	110	55

Sixty percentages of the respondents are male and forty eight percent of the respondents are female. 67 percent of the respondents (students) belong to the schools located in the rural areas. 33 percent of the students belong to the schools located in the urban areas. 1.5 percent of the schools are Govt. aided and 98.5 percent of the students belong to private schools. 1.0 percent is studying in boys schools and 2.5 percent is studying in girls schools 96.5 percent of the respondents are studying in Co-education schools.8.5 percent of the schools are primary level, 36.5 percent are secondary level and 55 percent are belongs to higher secondary level.

Hypothesis – 1: There is no significant association between Age and dependent variables

Table 3:Chi-Square Showing the Association between Age and dependent variables

S.No	Evaluating Aspects of SUITS	x2 Value	Sig. (2-sided)
1	Constructive programme for student's future	9.045[a]	.011
2	Convenient learning materials	.144[a]	.931
3	Students relished by SUITS	constant	
4	Instructor's support to perform practical	.942[a]	.624
5	Expeditious learning materials	1.466[a]	.480
6	Pragmatic tutoring	constant	
7	Instructor's concerning student's progress	2.421[a]	.298
8	Adequate tutoring materials	.457[a]	.796
9	Instructors conduct regular classes	1.170[a]	.557
10	Instructors tutoring with SUITS books	1.896[a]	.387
11	Easily perceivable syllabus	1.961[a]	.375
12	Relish to make entry in OMR sheets	7.870[a]	.020
13	Complex learning syllabus	.502[a]	.778

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14	Adequate practical timing	2.088ᵃ	.352
15	SUITS intellectualized students	3.462ᵃ	.177

There is a significant association (0.05 levels) between the age and the SUITS programmes are very constructive for student's future.

There will be no significant association between age and SUITS success variables. Table – 2 shows that the X2 value of the SUITS success variables are less than the significant level (.05) in constructive programme for students future and relish to make entry in OMR sheets. Rest of the thirteen variables X2 value is greater than the significant level. Hence, the formulated hypothesis -1 is "**partially rejected**" and "**partially accepted**".

Hypothesis – 2: There is no significant relationship among the SUITS success variables

Table – 3: Inter Correlation between the SUITS Success Variables

		Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
										Correlations						
Q1	Pearson Correlation	1	-.027	.ᵃ	-.012	-.009	.ᵃ	-.014	-.022	-.016	-.012	-.034	-.014	-.098	-.022	-.005
	Sig. (2-tailed)		.706	.	.861	.902	.	.839	.754	.819	.861	.635	.839	.169	.761	.944
	N	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200
Q2	Pearson Correlation	-.027	1	.ᵃ	-.066	-.047	.ᵃ	.154*	.198**	.121	.022	.404**	.231**	-.203**	.047	-.027
	Sig. (2-tailed)	.706		.	.350	.512	.	.029	.005	.087	.755	.000	.001	.004	.505	.706
	N	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200
Q3	Pearson Correlation	.ᵃ	.ᵃ	.ᵃ	.ᵃ	.ᵃ	.ᵃ	.ᵃ	.ᵃ	.ᵃ	.ᵃ	.ᵃ	.ᵃ	.ᵃ	.ᵃ	.ᵃ
	Sig. (2-tailed)	.	.		.	.	.	.	.	.	.	.	.	.	.	.
	N	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200
Q4	Pearson Correlation	-.012	-.066	.ᵃ	1	-.022	.ᵃ	.114	.150*	.363**	-.031	.067	.114	-.119	.051	-.012
	Sig. (2-tailed)	.861	.350	.		.760	.	.109	.035	.000	.664	.345	.109	.093	.469	.861
	N	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200
Q5	Pearson Correlation	-.009	-.047	.ᵃ	-.022	1	.ᵃ	-.025	.105	-.028	.219**	-.059	-.025	.003	-.038	-.009
	Sig. (2-tailed)	.902	.512	.	.760		.	.723	.139	.691	.002	.408	.723	.966	.597	.902
	N	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200
Q6	Pearson Correlation	.ᵃ	.ᵃ	.ᵃ	.ᵃ	.ᵃ	.ᵃ	.ᵃ	.ᵃ	.ᵃ	.ᵃ	.ᵃ	.ᵃ	.ᵃ	.ᵃ	.ᵃ
	Sig. (2-tailed)	.	.	.	.	.		.	.	.	.	.	.	.	.	.
	N	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200
Q7	Pearson Correlation	-.014	.154*	.ᵃ	.114	-.025	.ᵃ	1	.025	.304**	-.036	.100	-.042	-.067	.029	-.014
	Sig. (2-tailed)	.839	.029	.	.109	.723	.		.726	.000	.614	.159	.558	.349	.681	.839
	N	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200
Q8	Pearson Correlation	-.022	.198**	.ᵃ	.150*	.105	.ᵃ	.025	1	.088	.150*	.165*	.203**	-.066	.155*	-.022
	Sig. (2-tailed)	.754	.005	.	.035	.139	.	.726		.214	.035	.019	.004	.355	.029	.754
	N	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200
Q9	Pearson	-.016	.121	.ᵃ	.36	-.028	.ᵃ	.304*	.088	1	.094	.009	.070	-.075	.177*	-.016

	Correlation				3**			*								
	Sig. (2-tailed)	.819	.087	.	.000	.691	.	.000	.214		.185	.901	.323	.292	.012	.819
	N	200	200	200	200	200	200	200	200	200	200	200	200	200	200
Q10	Pearson Correlation	-.012	.022	.a	-.031	.219**	.a	-.036	.150*	.094	1	-.084	-.036	.004	.157*	-.012
	Sig. (2-tailed)	.861	.755	.	.664	.002	.	.614	.035	.185		.238	.614	.952	.027	.861
	N	200	200	200	200	200	200	200	200	200	200	200	200	200	200
Q11	Pearson Correlation	-.034	.404**	.a	.067	-.059	.a	.100	.165*	.009	-.084	1	.100	-.331**	-.007	-.034
	Sig. (2-tailed)	.635	.000	.	.345	.408	.	.159	.019	.901	.238		.159	.000	.925	.635
	N	200	200	200	200	200	200	200	200	200	200	200	200	200	200
Q12	Pearson Correlation	-.014	.231**	.a	.114	-.025	.a	-.042	.203**	.070	-.036	.100	1	-.228**	.029	-.014
	Sig. (2-tailed)	.839	.001	.	.109	.723	.	.558	.004	.323	.614	.159		.001	.681	.839
	N	200	200	200	200	200	200	200	200	200	200	200	200	200	200
Q13	Pearson Correlation	-.098	-.203	.a	-.119	.003	.a	-.067	-.066	-.075	.004	-.331	-.228	1	-.118	.051
	Sig. (2-tailed)	.169	.004	.	.093	.966	.	.349	.355	.292	.952	.000	.001		.095	.469
	N	200	200	200	200	200	200	200	200	200	200	200	200	200	200
Q14	Pearson Correlation	-.022	.047	.a	.051	-.038	.a	.029*	.155**	.177	.157	-.007**	.029**	-.118**	1	-.022
	Sig. (2-tailed)	.761	.505	.	.469	.597	.	.681	.029	.012	.027	.925	.681	.095		.761
	N	200	200	200	200	200	200	200	200	200	200	200	200	200	200
Q15	Pearson Correlation	-.005a	-.027a	.a	-.012a	-.009a	.a	-.014a	-.022a	-.016a	-.012a	-.034a	-.014a	.051a	-.022a	1a
	Sig. (2-tailed)	.944	.706	.	.861	.902	.	.839	.754	.819	.861	.635	.839	.469	.761	
	N	200	200	200	200	200	200	200	200	200	200	200	200	200	200

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

a. Cannot be computed because at least one of the variables is constant.

In table -3 few SUITS variables are remains constant, which is denoted that those values can't vary in any situation. Positive correlation with maximum negative r values. Hence it is considered as weak positive correlation. In the present study the variables in pragmatic tutoring to pupils are remains constant, due to 100 % agreed responses from the students to those variables. It is clearly states that the SUITS programme provides a foundation of C programming to the students in a very effective manner. Hence, this is a foundation for software programming. Most of the students are very much aware about this C language and interested to learn in the programming sectors. In this table, correlation matrix shows that there is a negative correlation among the variables. It noted that the increase of decreases of one variable resulting in decreases or increases of other variables in the matrix, hence the particular variables moves in the opposite direction of the matrix. In the table -3 correlations is significant at the 0.01 level between Q2 – conventional learning materials and Q8 adequate tutoring materials, easily perceivable syllabus, relish to make entry in OMR sheets, complex learning syllabus. Q4 – instructors

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support to perform practical and instructors conduct regular classes. Q5 – expeditious learning materials and Q10 – instructors tutoring with SUITS books, inter correlation between Q7 instructors concerning students progress and instructors conduct regular classes. Q8- adequate tutoring materials and convenient learning materials, Q9- instructors conduct regular classes Q4- instructors support to perform practical and instructors conduct regular classes. Q5-expeditious learning materials and Q10 – instructors tutoring with SUITS books, inter correlation between Q7 – instructor's concerning students progress and instructors conduct regular classes Q8-adequate tutoring materials and convenient learning materials, Q9, Q4, Q7, Q 10 and Q5.

Note: Positive correlation with maximum negative r values. Hence it is considered as weak **positive correlation**.

Conclusion

Information technologies have made the gap into relationship between the counties. Educations between countries have become usual even though the rural area are still not developed as much. India is developing where knowledge economy is the bone to support and the students should have the skill development for developing India. The gap between demand and supply of skilled students where the government and institutions are framing policies for more improvement among the students and the youth in India. There is a need to focus on school students here where they should be get ready for coping up with the technology so that they have to learn the basics in the schooling itself but the skill development for the school students in the rural are much tiny in Tamil Nadu. The study makes the following suggestions for improving and enabling skill development in rural India:

The major findings of the study are ninety nine percent of the students say that this programme is very constructive one for their best future.95 and 97 percent of the

student's sys that the instructors conducted classes regularly and always the instructors instructs with SUITS books. 81, 96, 91 and 99 percent of the respondents together said that the syllabus are easily perceivable, relish to make entry in OMR sheets, adequate practical timing. There is no significant association between age and dependent variables such as constructive programme for student's future, convenient learning materials, students relished by SUITS, instructors support to perform practical, expeditious learning materials, pragmatic tutoring, instructors concerning students progress, adequate tutoring materials, instructors conduct regular classes, instructors tutoring with SUITS books, easily perceivable syllabus, relish to make entry in OMR sheets and complex learning syllabus, adequate practical timing finally SUITS intellectualized students. There is no significant relationship among the SUITS success variables like constructive programme for student's future, convenient learning materials, students relished by SUITS, instructors support to perform practical, expeditious learning materials, pragmatic tutoring, instructors concerning students progress, adequate tutoring materials, instructors conduct regular classes, instructors tutoring with SUITS books, easily perceivable syllabus, relish to make entry in OMR sheets and complex learning syllabus, adequate practical timing finally SUITS intellectualized students

Government should actively promote the usage of information technology among the schools in rural areas; authorities should ensure availability of high quality internet access to schools and educational institutions. SUITS are helping the rural students by providing a source from the basics in main concepts of computer technology and they also teaching the teachers for preparing quality contents to support the computer curriculum. Smart cities will not make the rural Indians to urban and this is not the solution to the

fretting the gap between the two area. With education, good infrastructure and employment opportunity, in rural India will make the life better and more welcoming in rural areas.

References

- *Amandeep, Karamveer Kaur Brarb (2016), Impact of Liberalization and Globalization on Higher Education, Amandeep, Karamveer Kaur Brar, International Journal of Emerging Research in Management &Technology ISSN: 2278-9359 (Volume-5, Issue-1)*

- *Beas DevRalhan, 2017, India Today five problems with teachers in rural areas which are blocking India's educational growth.*

- *Baker, E. L., Gearhart, M., & Herman, J. L. (1994) Evaluating the Apple Classrooms of Tomorrow Technology Assessment in Education and Training, Hillsdale, NJ: Erlbaum (pp. 173-198).*

- *Economic Survey (2015), Economic Survey of India,. Ministry of Finance, Government of India, New Delhi.*

- *Means, B., & Olson, K. (2004) The link between technology and authentic learning. Educational Leadership, 51(7), 15-18*

- *The Hindu,March 25, 2013,Rural India is lost in the Woods.*

- *Richard Heeks ,(2010) Do information and communication technologies (icts) contribute to development? Journal of International Development, 22(5):pp.625–640*

- *Sunita Sanghi and Kuntal Sensarma, (2014), skill challenges of informal sector in India, Focus of the Month- March 2014, Confederation of Indian Industry (CII), pp. 33 – 41*

- *Sridhar Iyer (2013) Computer Masti - A series of computer textbooks for schools [Levels I-VIII], IIT Bombay.*

- *Ministry of Rural Development, (2016), Notes on Demands for Grants- 2016 to 2017, Department of Rural Development, Government of India, pp. 347-355*

- *Woessmann, L., Hanushek, E. and Zhang, L. (2011) 'General Education, Vocational Education, and Labor-Market Outcomes over the Life-Cycle.' NBER Working Paper.*