Impact of computer education in high school – A case study of Dharwad city

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ABSTRACT

Liberalization, Globalization and Privatization coupled with the advancement in computer technology have opened up new demand for skilled man power, service and education sector. So in this scenario education has been identified as one of the 12 main services under general agreement on trade in services, which needs to be opened up for free flow of trade between countries. Knowledge is expected to become a tradable commodity and it will be essential that Indian educators keep pace with the change in field of education and learning. The findings of this study reveals that computer education has greatly enhanced educational administrator through improving cross communication at managerial level, quick access to needed information, analyzing data fast and effectively. It reduces on work load good secure storage of information, improves co-ordination of task and activities in education era with respect to high school. Therefore, the finding reveals that the computer education should procure more ICT facilities and equipment in order to ensure maximum efficiency and effectiveness in all dimensional of educational administration. Hence researcher move contrasted on High School education, so sample study of Dharwad City has been considered.

Key words: Computer technology, Knowledge, Education and learning

1. INTRODUCTION

We are currently staying in Era of information, which depends on the Digital information. This digital information is an electronic information which is product of computer processing. Now a days each work is depended on the retrieving information, applying it, managing it, and transferring it to the followers. Computer is capable of processing and keeps information in its memory. Computer is a device capable of receiving both data and instruction. Executing the instructions on the data and giving the output accordingly. Computer vary in their activity, ability to cope with data and instructions. The volume of data it can process, the type of instructions it can execute, efficiently it speed and so on. They are vary in their architecture, there size and complexity they could hare just a single terminal such as a small office PC or a large number of terminals such as railways booking office etc.
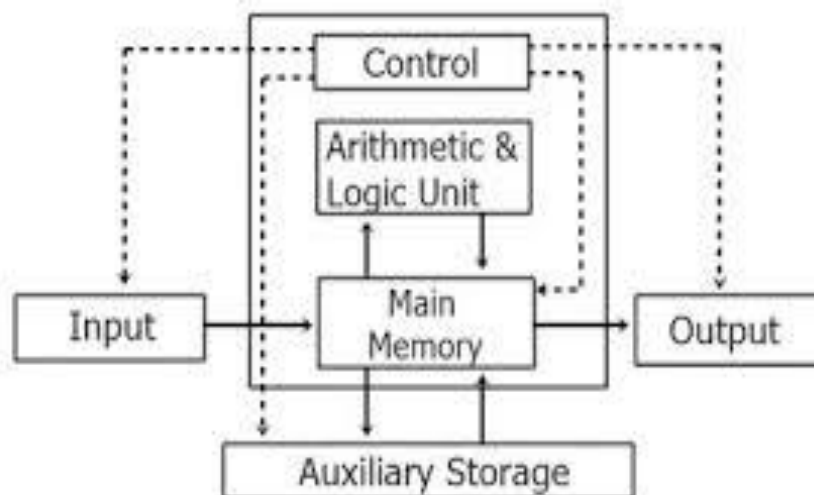

Fig. 1: General Block Diagram of computers

2. IMPORTANCE OF COMPUTER EDUCATION IN HIGH SCHOOLS

Computer education in schools plays an important role in students career developments. Computer with the internet is the most power full device that students can use to learn new skills and more. Advanced version of current lessons. Universities and schools are around the global teaching the students basics of computers and the internet online and offline. The uses of computers and the internet are growing day by day at high speed. In almost all business companies, schools using computers for various official operations.

New tech tools are coming that helping students to learn better. Computers help students to draw creativity on the computer such as by using windows paint programme. If students are taking Hindi classes or poem, writing then they can so it by typing in Hindi on computers. If students are taking Mathematics classes they can use Microsoft excel application to solve and understand question. In schools computer education is one of the most important subject, if we compare this with the current technological updates and demands of computer knowledge in various government and private sector jobs. In schools computer education is really important for teaching, learning and evaluating the students as well as computer teachers to teach students about how to use computer? How to understand the benefits of using various application such as Microsoft word, excel, PowerPoint, Internet safety etc. The main goal of technological education is to make students think creativity and confident. That helps them in higher education and in-life education plays very important role in our life and career developments.

3. WHY COMPUTER SKILLS ARE IMPORTANT?

Computer and computer devices have grown to hold key roles in schools, homes and workplace. Many students acquire basic skills in high schools. So that they know to operate a computer. In addition students learn skills such as sending emails, conducting internet research, creating word processing documents and presentations. The basic computer skills help students achieve success in colleges and schools when they are utilize for processing and presenting information. There are many computer based software's for learning new things from any place in the world. Some of the Applications like BYJUS have been using new technology for making learning into fun. The Basic important learning of computers are Word processing, Email, Internet and Computer Ethics etc.
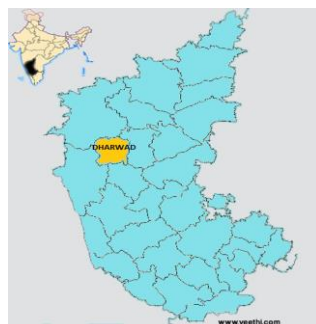
4. STUDY AREA

Dharwad city is the Head Quarter of Dharwad district is located at 15*27'30''North Latitudes 75*00'30"East Longitudes. The city is situated at an altitude of 2550 feet above mean sea level. It is located on the Pune-Bangalore National Highway No.4. The Miraj-Bangalore Broad Guage Railway passes through the city. Dharwad is located almost in an equal distance from Pune and Bangalore and the Distance is about 419 Kilometers.
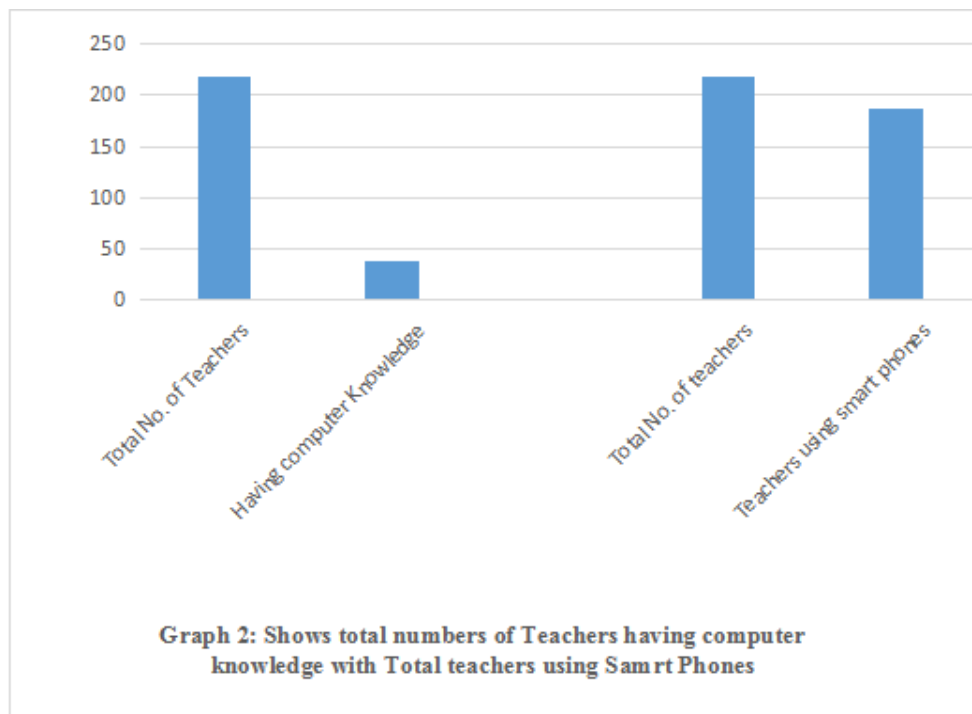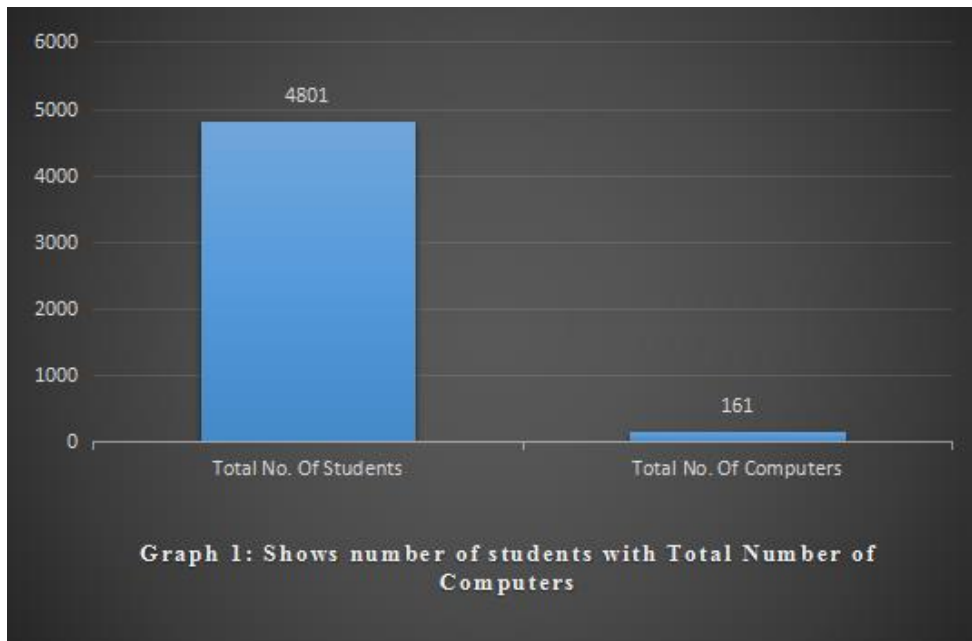
Dharwad is usually referred as chota Mahabaleshwar because of its outstanding features. The city is situated almost on transitional line of semi malnad and maidan tracks. Geographically Dharwad lies on the Deccan Plateau and Naturally had the system bedrocks compromising of schiest shale and phylites no minerals of economic importance are found near the city. The shale and schiest rocks which comes under the Metamorphic type are not good even for building or for construction purpose. Medium Red, Murum and mixed soil is found in south and western side but on the eastern and northern side it has all black cotton soil which is typical of maidan area that is why Dharwad is aptly called as Gadi Nadu to mean the marginal land of maidan and malnad. Thick low growing vegetation is seen all around the city except on Northern and Eastern side where dry agricultural lands are present.

The climate of Dharwad town is pleasant moderately cool and healthy all around the year. The daily mean maximum temperature is found to be 37* C. The average annual rainfall is less than 82.57 cm. Maximum humidity is observed the months of July, August, and September and minimum is found the months of December and March. Dharwad city is one of the Oldest cities of India established in year 1117 A.D. through it enjoyed some importance during the rule of king Vikramaditya of Chalukya dynasty. It attained greater significance during the rule of famous Vijayanagar empire. It is during this period strong fort around Dharwad was built, in 1403, the city is named after a person Dhara Rao an officer and a general of the Vijaynagar empire. After the fall of Vijaynagar empire the king of Bijapur Adil Shah captured the kingdom in the year 1573. For the administrative purpose a municipality was created in 1856 and was amalgamated with Hubli town in 1962 since then it is called as Hubli-Dharwad Muncipal Corporation.As per 2011 census the total population of Hubli-Dharwad City is 9.44 lakh and sex ratio is 989.There are 67 wards in Hubli-Dharwad.

5. AREA OF RESEARCH

Researcher selected the Dharwad City as a Case Study. In the study area totally there are 63 High schools out of which researcher selected only 8 High schools as a Sample study. In which 06 are Government High schools, 02 are Unaided High Schools, 3 are Aided High Schools.

Graph 1: Shows number of students with Total Number of Computers

Graph 2: Shows total numbers of Teachers having computer knowledge with Total teachers using Samrt Phones

Table 1: Shows data pertaining to Dharwad district high schools

Name of School	RN shetty Govt High	vidyaranya High school	Govt Urdu High School Gulgojkop	UPS High School	Paul Haris High School	Aadrash Girls High School	Hazrat Nizamuddin High School	Wanita High School	Basel Mission Girls High School	Manjunat hweshar High School	K E Board High School	LEI High School	Karnataka Eng Med High School	Jayadev High School	Karnataka boys High School	KNk Girls High School	Anjuman High School	Total
Total No. of Teachers	10	19	10	26	18	6	8	5	14	12	15	6	25	7	13	10	14	218
Teachers having Computer Knowledge	6	0	0	2	4	0	1	0	2	2	0	1	13	0	3	2	2	38
Total No. of Computers	13	12	16	15	1	10	6	1	2	19	10	1	21	3	3	18	10	161
Total No. of Laptops	2	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	2	8
Total No. of Smartphone User	10	10	10	18	18	8	6	5	12	10	13	3	18	6	13	12	15	187
wheather Internet Facility Available	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	-
Wheather WIFI facility Available	Yes	No	Yes	No	No	No	No	Yes	No	Yes	No	Yes	Yes	No	Yes	Yes	Yes	-
Total No. of Classes	6	16	6	16	14	3	10	3	14	5	12	3	16	9	5	9	12	-
Students Strength																		
8th standard	54	152	73	88	33	33	63	40	174	57	147	50	78	35	44	110	135	1366
9th standard	196	141	82	121	19	63	56	66	245	63	136	40	56	44	76	130	332	1866
1oth standard	86	143	65	68	28	56	55	47	145	31	161	42	51	43	86	126	336	1569
Total Strength	336	436	220	277	80	152	174	153	564	151	444	132	185	122	206	366	803	4801

Table 2: Shows Student Strength, Computer Ratio and Teachers having Computer Knowledge

Name of School	Teachers having Computer Knowledge	No. of Students	No. of Computers	Ratio between students and computers	Ratio Between Teachers and Students
RN shetty Govt High Schools	6	336	13	3.87%	1.79%
vidyaranya High school	0	436	12	2.75%	0.00%
Govt Urdu High School Gulgojkop	0	220	16	7.27%	0.00%
UPS High School	2	277	15	5.42%	0.72%
Paul Haris High School	4	80	1	1.25%	5.00%
Aadrash Girls High School	0	152	10	6.58%	0.00%
Hazrat Nizamuddin High School	1	174	6	3.45%	0.57%
Wanita High School	0	153	1	0.65%	0.00%
Basel Mission Girls High School	2	564	2	0.35%	0.35%
Manjunathweshar High School	2	151	19	12.58%	1.32%
K E Board High School	0	444	10	2.25%	0.00%
LEA High School	1	132	1	0.76%	0.76%
Karnataka Eng Med High School	13	185	21	11.35%	7.03%
Jayadev High School	0	122	3	2.46%	0.00%
Karnataka boys High School	3	206	3	1.46%	1.46%
KNk Girls High School	2	366	18	4.92%	0.55%
Anjuman High School	2	803	10	1.25%	0.25%
Total	38	4801	161	3.35%	0.79%

5. ANALYSIS

Table 2 and Graph No.2 indicates the percentage of students and computes in High Schools such as Karnataka English Medium High School students are **11.35%** and Manjunatha High School **12.58%** , Paul High school , Wanita High School and L.E.A High School students percentage are **1.25%, 0.65%** and **0.76%** respectively. The percentile data indicates that students of these High schools are lagging behind in computer education. Further Researcher observed that a total number of teachers who have computer knowledge is **17.75%** which indicates a very poor and low performance in gaining computer knowledge and Teachers are not capable of providing appropriate and up-to-date education to the students.

Further more interesting fact is that, the Total number of teachers who are using smart phones percentage is **85.78%**. The question arises here is that why the teachers are incapable of providing more computer knowledge to the students? One more interesting factor is Laptop Users; The number of institutions who are using laptops are only 8 in numbers, which means that maximum number of institutions are not having Digital facilities such as projectors, PPT presentations etc. This overall data shows that schools are lagging behind in computer and digital education

The researcher also observed that the maximum teacher strength is **26 in U P S C High school, 25 in Karnataka English medium High school**. But as computer knowledge is concerned there are only 2 teachers in U P S C High School and **13 teachers in Karnataka High school.** As per the lowest ratio analysis is concerned we find in Wanita High School and L E A high school share **5:0 and 6:1 respectively.** It is observed in some of the High schools that, teachers are not having computer knowledge. So is it believed that these teachers are lagging behind to provide good computer knowledge to the students hence trained them in Modern Digital Information System. The researcher has overall observed in analytical part that, In the present scenario Technology is being rapidly increased and the knowledge of computer and skill based education are very essential to make the student knowledge to reach high profile to compete with globalize environment. Hence it is clear that, the Computer Education should be made compulsory subject in High schools. And institutions to enhance the knowledge power of the students and making it more advanced in modern education systems.

6. POSITIVE AND NEGATIVE IMPACT OF COMPUTER EDUCATION IN HIGH SCHOOLS:
6.1 Positive Impact
6.1.1 Enhanced Teaching and Learning: Technological development like digital cameras, projectors, mind training, software, computers Power point presentations, 3D visualization tools all these have become great sources for teachers to help students grasp a concept easily. It has to be understood that visual explanations of concepts makes learning fun and enjoyable for students. They are able to participate more in the classroom and even teachers get a chance to make their classes more interactive and interesting.

6.1.2 Globalization: When schools in different parts of the sate Students can meet their counter parts through video conferencing without leaving the classroom. Some sites such as www.glvia.com are used to help students learn foreign languages online by pairing a group of students with a teacher from other country.

6.1.3 No Geographical limitations: With the introduction of Online programs there is hardly any need of being present physically in the classroom. Even several foreign universities have start online degree courses that student can join. Distance Learning and online education have become very important part of the education system nowadays.

6.2 Negative Impact

6.2.1 Declining Writing skills: Due to the excessive use of online chatting and shortcuts the writing kills of today's young generation have declined quite tremendously. These days children are relying more and more on digital communication that the have totally forgot about improving their writing skills. They don't know the spelling of different words how to use grammar properly or how to do cursive writing.

6.2.2 Increasing Incidents of Cheating: Technological developments like graphing, calculator, high tech watches, mini computers and similar equipment have become great source to cheat in exams. It is easier for students to write formulas and notes on graphical calculators with least chances of being caught.

6.2.3 Lack of Focus: SMS or text messages has become a favourite pastime of many students. Students are seen playing with their cell phone day and night or driving and very often even between lectures. Being ever-connected to the online world has resulted in lack of focus and concentration in academics and to some extent even in sorts and extra curricular activities.

7. CONCLUSION

The Technology has a very positive impact on education and at the same time may also pose negative effects. Teachers and students should take advantage of this in the good light and eliminate the drawbacks which are pulling back many of students as well as High schools from achieving excellence. It is thus time for every High schools to introduce a more technologically equipped education in the future. The government has to make the computer education as one of the skill based education. Researcher suggests with the present scenario that, technology is an important tool for teachers as well as the students. Computer Education should be sustained in High Schools and government as well as the private institutions should provide the Basic infrastructure to ensure that Teachers and students maximize the Benefit of positive Impact of Computer studies.

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