TIME USE OF SMARTPHONES BY YOUNG ASPIRING MINDS

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Abstract

Children and youth in India have in the last decade become increasingly technology-driven, revealing considerable potential and readiness to imbibe and learn using digital media. This study was conducted to find out the time Indian Young Aspiring Minds (YAM) spent on their smartphones for academic activities. Digital India has been envisioned as an ambitious umbrella programmed to transform India into a digitally empowered society and knowledge economy. This paper is going to assess the time -use of smartphones for academic activities by 'Young Aspiring Minds'(YAM). The sample is Teacher trainees of B.Ed. The data is going to be collected by using global estimates of time to measure various amounts of time spent on smartphones in a typical exam day. Respondents were asked to simply to state the number of hours or to respond to a Likert-type scale based on hours.

The average time spent for doing web research, watching U-Tube videos, Sharing and discussing work (WhatsApp etc.) was more by YAM males whereas for reading e- books YAM females were spending more hours through their smartphones. The findings of the study indicated that today's YAM are spending majority of their time on smartphones for various academic activities

Keywords*: Time Use, Digital India, Digital Technology (DT), Smartphones, Young Aspiring Minds(YAM).*

INTRODUCTION

According to Emarketer , India will be a leading catalyst in technological push, as it will overtake USA to become world's second largest Smartphone market with 200 million+ users. The government's initiatives are promoting the use of digital devices and to make Digital India dream a success in true and real sense. Therefore, time spent on digital devices by our youth for academic activities will be extremely useful for Indian government to create a Digital India.

Digital India has been envisioned as an ambitious umbrella programme to transform India into a digitally empowered society and knowledge economy. The Prime Minister has introduced initiatives such as e-education, e-basta, Nand Ghar which will impart education using technologies including smartphones, mobile apps and internet services in far-flung areas where it may not be possible for teachers to be present in person. Further, 13 lakh Balwadis in India are planned to be converted into Nand Ghar where Anganwadi educators will be trained to use digital tools as teaching aids. e-basta is another cherished initiative by the government aimed at making school books accessible in digital form as e-books to be read on tablets and laptops.

Therefore, it is important to understand how much time today's youth referred as 'Young Aspiring Minds (YAM) are spending on their smartphones to accomplish Indian Govt's efforts to make this Digital India Movement a success. This study is conducted to find out the time our YAM spent on their smartphones for academic activities. Education through smartphones attracts students of all ages for offering low cost learning, flexible "anytime, anywhere", individualized learning. Ministry of Human Resource Development, Government of India has embarked on a major initiative called 'Study Webs of Active Learning for Young Aspiring Minds' (SWAYAM), to provide an integrated platform and portal for online courses, covering all higher education, High School and skill sector courses.

Carvin (2006) and Ogedebe (2012) found strong correlations of Internet access with academic performance. Both studies agreed that the use of Internet has improved students' academic performance as Internet assists them to have better preparation for exams. These respondents claim they get relevant information pertaining to their course of study while browsing the Internet. Technology-based activities can facilitate students' understanding of the content and provide different ways of expressing knowledge to the students.

Dar (2016) highlights the importance of smartphones in Kashmir Valley where resources and manpower both are deficient. This paper also discussed technologies like Android, Aakash Tablets which drastically changed the mechanism of teaching way students are using them and are used in cost-effective and efficient manner.

Vandewater & Lee (2009) developed global time estimates to measure various amounts of time spent on smartphones in a typical day (or a typical week?)" Respondents were asked to simply state the number of hours or to respond to a Likert-type scale based on hours. Global estimates are perhaps the most common form of measurement, in part because they are inexpensive and easy to administer. They are found in many public-use and large-scale surveys relied on by many to report the amount of time children, spends using digital and electronic media.

Chen and Lu (2009) surveyed after school time use on nine after-school activities by studying effects on educational achievement and well-being. The authors conducted the Taiwan Educational Panel Survey (TEPS) which used a multistage, stratified probability sample high schools in Taiwan were classified according to geographical location, metropolitan /rural area, and public/private. Then, within each school, four classes were selected, and, within each class, 15 students were selected. The national data set used in this study was collected in 2005 as the third wave, and its follow-up was collected in 2006 as the fourth wave. A dependent variable of this study was educational achievement. The findings showed a positive correlation between time spent on homework and educational achievements.

Apart from the increase in overall time spent consuming media is the finding that youth consume 20% of their media on a "third screen that is mobile smartphones and game consoles (Rideout et al., 2010). The Pew Internet & American Life Project (Lenhart, Ling, Campbell, & Purcell, 2010) reported that 75% of 12- to 17-year-olds owned cell phones, with 87% of them texting and half of the texters (over one third of all 12- to 17-year-olds) sending 50 texts daily. Studying 8- to 18-year-olds, Teens also increasingly use social network sites: A growing number (73%) of online 8- to 18-year-olds use social network sites (Lenhart, Purcell, et al., 2010) for an average of 37min per day (Rideout et al., 2010).

Rideout, Foehr, and Roberts (2010) of the Henry J. Kaiser Family Foundation conducted a longitudinal study from 1999 to 2010 with over 2,000 subjects beginning at ages eight and tracking those same students up to age eighteen to discuss media usage. It was reported that in 2010 children spend an average of six hours and nineteen minutes using electronic media per day. They also found the amount of time the subjects interacted with various media this group spends an average of ten hours and forty-five minutes per day exposed to media. Even after multitasking is taken into consideration, the total still stands high at seven hours and thirty-eight minutes, more than an hour above the 2004. The findings were substantial in showing the growing use of media in the lives of adolescents and how much screen time they accumulate (Rideout et al.,2010).

Larson &Verma (1999) compared the academic as well as leisure time activities of North American children and European children with that of East Asian children. Children in North America have much more leisure time than children in East Asia due to differences between countries in priorities for schoolwork versus other areas of personal and social development. East Asian children spend about 2-3 hours a week more in schoolwork than do North American children and have about the same amount less in leisure time. European children are intermediate between North American and East Asian children. Of this leisure time, however, North American and European children spend more time in structured activities, particularly sports, than East Asian children (Larson & Verma, 1999).

Kolari, Savander-Ranne and Viskari (2008) found the time use of a total of 54 first year engineering students participated in the study period lasted half a semester, for 8 weeks, during which students kept a time-use journal on their daily activities. The authors explored the time students use for studies and on other activities. The students in this study were optimistic about their time use since they estimated beforehand that they would use more time to study than they eventually did. In the end, it turned out that they used on average only 63% of the time allocated in the curriculum.

The research study was devised as a way of gaining some understanding of time –use of Smart phones by YAM in Delhi. However, very little information is available on Indian YAM's time pursuits. The Time– use survey explored in this study describes the time

spent on smartphones with focus on academic activities during exam-time. This study explored the relationships of time spent on Academic activities by using smartphones for 1. Web Research (Google, Wikipedia, Journals, Articles etc.) 2. Reading e- books and other content 3. Watching videos by using apps (U-tube, Khan Academy etc.) 4. Sharing and discussing work (WhatsApp etc.).

OBJECTIVE

1. To explore time –use of academic activities by Young Aspiring Minds during exam time.

METHODOLOGY

This cross-sectional study was designed in keeping with existing international studies of time use of Indian youth. Global time estimates were used in this survey.

Global Time Estimates

Global time estimates are always self-reported in either written or interview form. Global estimates of media use take two general forms: (a) average amount of time spent (usually hours) using various media and (b) average number of days using media (usually within a month or a week). Global time estimates questions typically take the form of "How many hours did you spend on your smartphone during examination period?" "How many hours do you spend on an academic activity in a typical exam day Respondents are asked either to simply state the number of hours or to respond to a Likert-type scale based on hours (for example, *0 to 1 hrs*, *1 to 2 hrs*, *2 to 3 hrs*, *more than 3 hrs*).

Global estimates are perhaps the most common form of measurement, in part because they are inexpensive and easy to administer. They are found in many public-use and large-scale surveys relied on by many to report the amount of time spend on digital and electronic media.

Table 1: Description of the Sample

Cross sectional time -use survey method is proposed in this study. The respondents are 60 Smartphone users belonging to B.Ed. College of JMI in Delhi. 10 male students, 10 female students from three mediums Urdu, Hindi and English were chosen randomly from B.Ed. College.

Sl. No.	JMI B.Ed. Course	Number of Young Aspiring Minds(YAM)		
	Medium	Males	Females	Total
1.	Urdu	10	10	20
2	English	10	10	20
3.	Hindi	10	10	20

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Scoring the Responses to The Time –use Tool of Touch Screen Devices (T3SD) Items:

In addition to spaces for the demographic details: respondent's name, age, gender, and Time – use of TSD for academic activities, the T3SD record form includes the following instructions:

"The questionnaire consists of 4 statements. Items are based upon the 4-point Likert scale, with responses 1 (less than 1 hr) , 2 (1 hr), 3 (2 to 3 hrs), 4 (more than 3 hrs) which best describes for a typical examination day.

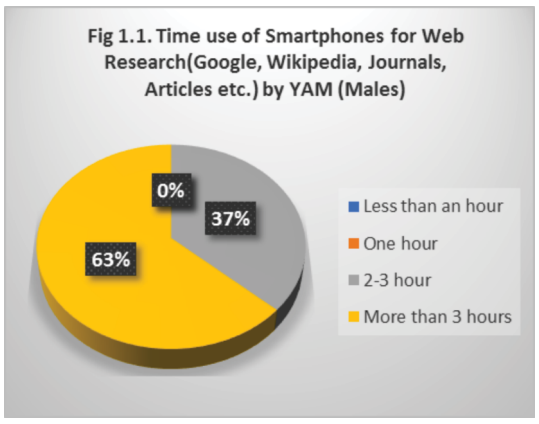
The results of the time-use study conducted have been conducted under the four pre-determined themes are presented as under:

The academic activities which were explored while using a smartphone during exam-time are as follows:

1. Web Research (Google, Wikipedia, Journals, Articles etc.)
2. Reading e- books and other content
3. Watching videos using apps: U-tube, Khan Academy etc.
4. Sharing and discussing work (WhatsApp etc.).

Table 2: Average Time spent on Various Academic Activities during Exam Time

Sl. No.	Description of academic activities during Exam time	Respondent's Status			
		Number		Percentage	
		Male	Female	Male	Female
1.	Web Research (Google, Wikipedia, Journals, Articles etc.)				
	Less than an hour	0	0	0%	0%
	One hour	0	4	0%	13%
	2-3 hour	11	15	37%	50%
	More than 3 hours	19	11	63%	37%
2.	Reading e- books and other content				
	Less than an hour	28	26	93%	86%
	One hour	1	2	3%	6%
	2-3 hour	1	2	3%	6%
	More than 3 hours	0	0	0%	0%
3.	Watching videos using apps: U -tube, Khan Academy etc.				
	Less than an hour	1	2	3%	6%
	One hour	1	1	3%	3%
	2-3 hour	1	20	3%	66%
	More than 3 hours	27	7	90%	23%
4.	Sharing and discussing work (WhatsApp etc).				
	Less than an hour	2	18	6%	60%
	One hour	28	12	93%	40%
	2-3 hour	0	0	0%	0%
	More than 3 hours	0	0	0%	0%



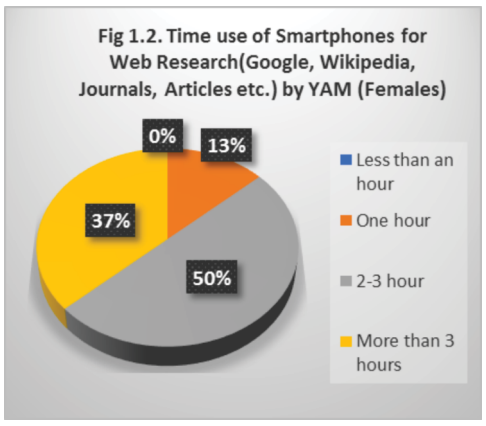
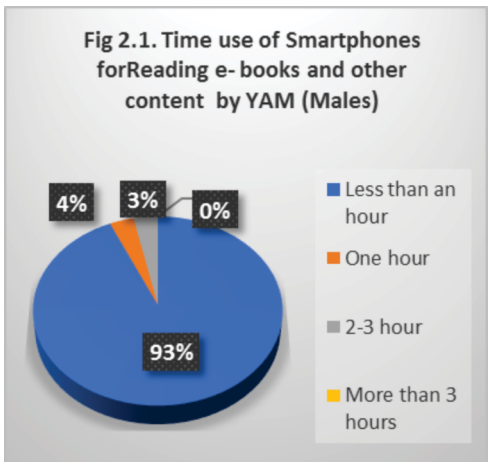


Fig 1.1 and 1.2 indicates the Time -use of Smartphones for web research by Male YAM and Female YAM respectively.



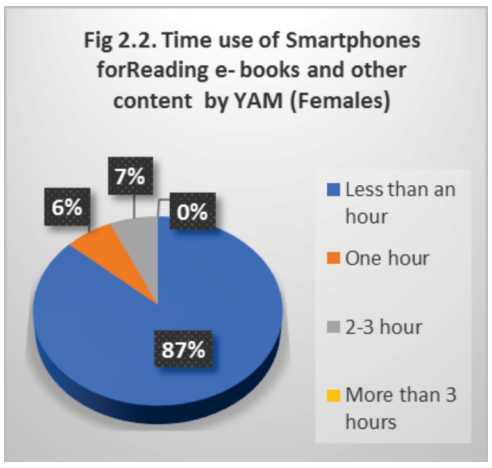
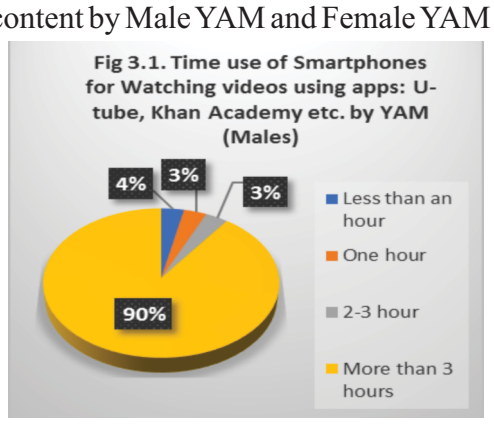


Fig 2.1 and 2.2 indicates the Time -use of Smartphones for Reading e- books and other content by Male YAM and Female YAM respectively.



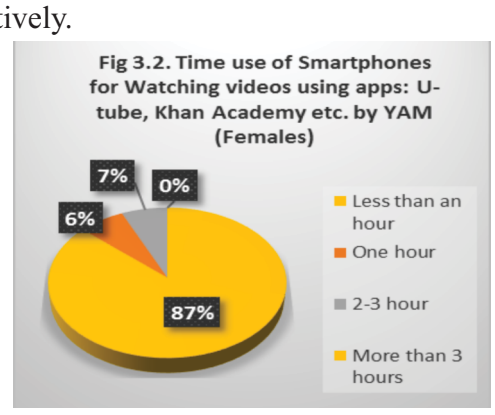


Fig 3.1 and 3.2 indicates the Time -use of Smartphones for Watching videos using apps: U-tube, Khan Academy etc.by Male YAM and Female YAM respectively.

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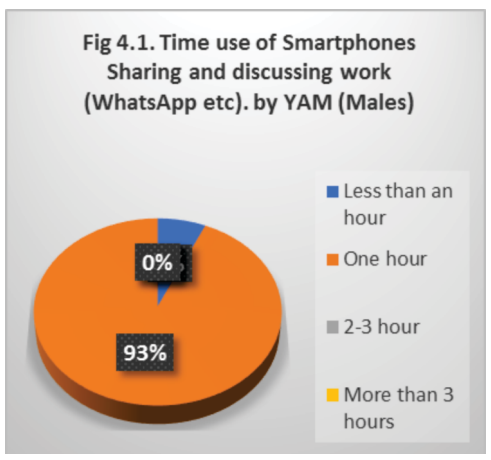

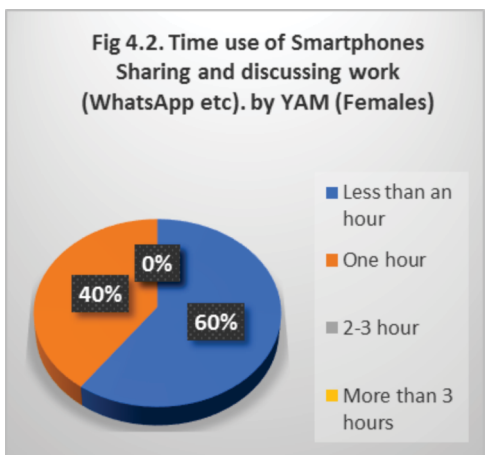

Fig 4.1 and 4.2 indicates the Time -use of Smartphones for Sharing and discussing work (WhatsApp etc).by Male YAM and Female YAM respectively.

Table 2 provides an overview of average time spent by YAM in the four main activity categories during exam time, by gender. From Table 2, it is clear that, some gender differences are apparent in time use. The average time spent for doing web research , watching U-Tube videos , Sharing and discussing work (WhatsApp etc.) was more by YAM males whereas for reading e- books YAM females were spending more hours through their smartphones. The findings of the study indicated that today's YAM are spending majority of their time on smartphones for various academic activities

CONCLUSION AND IMPLICATIONS

To revolutionize the education system in India, the smartphones became an instrument for self actualization providing educational oppurtunities to our YAM.Mainstreaming the initiative of learning through smartphones with the formal education system will go a long way in realizing the dream of the nation in universal access of education. With appropriate planning and implementation, smartphones can play a pivotal role in Digital India and Skill India missions of the government of India. The present study reflects Indian Youth's time spent on smartphones for educational activities. In the present study, almost all YAM irrespective of the gender are spending their time on smarphones even during exam time for various academic activities.These Young Aspiring Minds(YAM) soon will become part of Digital India movement by adapting smartphones to use accomplish their goal. This study makes an important contribution to time use of smartphones for educational purpose during examination time. Therefore, the Digital India mission will soon be a success. In future, YAM can make “SWAYAM” also successful.

REFERENCES

Ben-Arieh, A. (2010). From child welfare to children well-being: The child indicators perspective. In *From child welfare to child well-being* (pp. 9-22). Springer Netherlands.

Ben-Arieh, A., & Ofir, A. (2002). Opinion, dialogue, review: Time for (more) time-use studies: Studying the daily activities of children. *Childhood*, *9*(2), 225-248.

Brooker, A. S., & Hyman, I. (2010). *Time use: A report of the Canadian index of wellbeing (CIW)*. Canadian Index of Wellbeing.

Carvin, A. (2006). Learning now: At the crossroads of Internet culture & education with host Andy Carvin. New government report exposes the school-home digital divide.

Chen, S. Y., & Lu, L. (2009). After-school time use in Taiwan: Effects on educational achievement and well-being. *Adolescence*, *44*(176), 891.

Dar, M. A. (2016, July). Role of smartphone in rural development: A case study of Kashmir. In *Technological Innovations in ICT for Agriculture and Rural Development (TIAR), 2016 IEEE* (pp. 205-208). IEEE.

Devi, S., Rizwaan, M., & Chander, S. (2012). ICT for Quality of Education in India. *International Journal of Physical and Social Sciences*, *2*(6), 542-554.

Fuligni, A. J., & Stevenson, H. W. (1995). Time Use and Mathematics Achievement among American, Chinese, and Japanese High School Students. Child Development, 66(3), 830–842.

Hanafin, S., & Brooks, A. M. (2005). *Report on the development of a national set of child well-being indicators in Ireland*. Stationery Office.

Kanjilal, U., & Kaul, P. (2016). The Journey of SWAYAM: India MOOCs Initiative.
Kolari, S., Savander-Ranne, C., & Viskari, E. L. (2008). Learning needs time and effort: a time-use study of engineering students. *European Journal of Engineering Education*, *33*(5-6), 483-498.

Lam, C. B., & McHale, S. M. (2015). Time Use as Cause and Consequence of Youth Development. Child Development Perspectives, 9(1), 20–25.

Lenhart, A., Ling, R., Campbell, S., & Purcell, K. (2010). Teens and mobile phones:

text messaging explodes as teens embrace it as the centerpiece of their communication strategies with friends. Pew Internet and American Life Project. *Communication Studies*.

Rego, R. (2017). New Media Technologies in Teaching and Learning in Higher Education. *Media Watch*, *8*(1), 75-88.

Rideout, V.J., Foher, U.G., Roberts, D.F. (2010). *Generation M2: Media in the Lives of 8-18-Year-Olds: A Kaiser Family Foundation Study*. Menlo Park, Calif.

Soupourmas, F. (2005). Work, Rest and Leisure–Trends in Late Adolescent Time Use in Australia in the 1990s. Loisir et Société/Society and Leisure, 28(2), 571-589. SWAYAM Portal www.swayam.gov.in

Vogler, P., Morrow, V., & Woodhead, M. (2009). Conceptualising and measuring children's time use. Young Lives Technical Note 14.

Wight, V. R., Price, J., Bianchi, S. M., & Hunt, B. R. (2009). The time -use of teenagers. Social Science Research, 38(4), 792-809.

Zuzanek, J. (2005). Adolescent time-use and well-being from a comparative perspective. Society & Leisure, 28(2), 379-423.