



Effectiveness of Android Mobile Technology in Teaching Science

By

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Abstract

There is enormous increase in the impact of mobile on daily life of human. Today is a age of ICT. Due to the widespread of ICT change both teaching & learning. The main objectives of present study were 1) To check the opinion of students towards Android Mobile Technology 2) To study the effectiveness of Android Mobile Technology in Teaching Science. Experimental study was followed to check the effectiveness of Android Mobile Technology. Study was used the both qualitative & quantitative analysis. The target of population of this research was B.Ed. students the nature of the study how ever required that the training college & students was purposively selected. Researcher used equivalent group post test design. For data collection researcher used student opinionary about mobile technology & post test. Following null hypotheses were formulated. There is no significant difference in effectiveness of Android mobile technology on the students achievement of science content. The finding of first objectives shows that Android technology is one of the innovative pedagogies to be adopted in the classroom instruction in order to deliver the important information in a structured & organized way so that will fill happy & learn with happiness. Android mobile technology offers joyful learning which is need

of the hours. The finding of second objectives shows that result of analysis are stated that there is significant impact of Android mobile technology on students achievement. Hence null hypothesis is rejected.

Keywords : *Android, 3G Multimedia, Content storage technology, content transfer technology.*

Introduction

Android Mobile Technology refers to the third generation of mobile technology and it enables increased data handling rates and high speed bandwidth. Also global roaming is seamless in a 3G network. Due to this technology Android Mobile phones offer new features such as video conference calling, Video streaming, video walls and enhanced web browsing capabilities. Older technology designed to carry voice but not data. So this feature of providing converged voice and data services makes Android Mobile Networks unique. The main characteristics of Android Mobile are: Multi-media services with streaming audio and video, E-mail with full fledged attachments such as PowerPoint files, Instant messaging with video/audio clips, Fast downloads of large files such as faxes and PowerPoint files.

Historical Background of Mobile Network :

The first generation (1G) began in the early 80's with commercial development of Advanced Mobile Phone Service (AMPS) cellular networks. Early AMPS networks used Frequency Division Multiplexing Access (FDMA) to carry analog voice over channels in the 800 MHz frequency band.

The second generation (2G) emerged in the 90's when mobile operators developed two competing digital voice standards. In North America, some operators adopted IS-95 which used Code Division Multiple Access (CDMA) to multiplex up to 64 calls per channel in the 800 Mhz band. Across the world, many operators adopted the Global System for Mobile communication (GSM) standard, which used

Time Division Multiple Access (TDMA) to Multiplex up to 8 calls per channel in the 900 and 1800 MHz bands.

The International Telecommunications Union (ITU) defined the third generation (3G) of mobile telephony standards IMT-2000 to facilitate growth, increase bandwidth and support more diverse applications. For example, GSM could deliver not only voice, but also circuit-switched data at speeds up to 14.4 kbps. But to support mobile multimedia application. But to support mobile multimedia applications. Android Technology had to deliver packet-switched data with better spectral efficiency, at far greater speeds.

Android Mobile Technology :

Technology used by Android Mobile phone can be categorized following way :

1. The Android Mobile Technologies contain Web/Wap browsers, HTML browsers, Java Players, Flash Player, Audio player, Movie player, e-Book readers. Its also include connection via a mobile operator network (GPRS and 3G), Connection via local wireless network (wifi) connation via blue tooth or infrared and Transfer via memory card.
2. The storage technology used in Android Mobile which include internal memory and external memory like Compact Flash card, Memory Sticks, Secure Digital Cards and Multimedia Cards etc. All the above can be used for educational application and purposes.

Need & Importance of Research :

Technology was a greater role for teachers & students. Mobile Technology can also be a medium to support and accelerate this educational transformation, we make effective & efficient used of this resources. the mobile phone is a multi application system, and as such. enables educational application to use other utilities of the cellular phone (for example : communication utilities). Thus, the cellular unities can be seen as building blocks of the global educationnal application. An example is the

mobile author application, which helps teachers create and author their computer based courses. It allows teachers to insert domain data into the application (lessons, assignment, tests etc). The data documents are html documents. Both students and the teacher have access to the databases of the application, and they communicate with each other via SMS, email or the databases. All can be done via Android mobile phone. Students can read their assignments, do their tests and send them to the teacher for him or her to check them. Throughout teachers stay informed of the progress of their students wherever they may be and whenever they want.

In this connection researcher was designed following research questions. Does Android Mobile Technology results in greater achievement among science students as compare to traditional method?

Objectives of the study :

- 1) To check the opinion of students towards Android Mobile Technology
- 2) To study the effectiveness of Android Mobile Technology in Teaching Science.

Methodology : Keeping the above objectives in mind, experimental study was followed to measure effectiveness of Android Mobile Technology. Study was used qualitative & quantitative analysis. Researcher were used Equivalent group post test design.

Population & Sampling :

The target of population of this research was B.Ed. students. The nature of the study however required that the training college & students was purposively selected. for experimental & control group 15 students were selected.

Limitation & Delimitation : The Study was delimited with respect to class, subject, content, place of study and mobile literacy.

Tools of Data Collection :

In the present study the researcher employed students opinionary towards mobile technology and post test as a tools for data collection.

Analysis of Data : In the present study the researcher used means, standard deviation, 't' test

Major finding :

Objective 1) To check the opinion of students towards Android Mobile Technology

Finding :

- 1) Android mobile phone can be moved anywhere in the building.
- 2) Android mobile phone are easier to accommodate within existing classrooms because of their small size. It's easier to accommodate several mobile devices in a classroom than several desktop computers.
- 3) Unlike desktops, behind whose large monitors students may be hidden, mobile phones have low profiles and allow teachers and students to make an important eye contact.
- 4) Android mobile phone can be used within existing rooms and can be configured to fit the teacher's preference and the nature of the learning experience, whether it is team, group, or individual. It is not always easy to work on a computer sitting in a far off village or town, but mobile can be accessed anywhere.
- 5) Android offers an interactive learning experience where learners can interact with each other.
- 6) Android Mobile phones, PDAs or tablets holding notes and e-books are lighter a can facilitate the entire m-learning process with ease unlike bags full of files, paper and textbooks, or even laptops.
- 7) Android Mobile devices can be used anywhere, any time, including at offices, home, or when in transit
- 8) The Size, shape, weight and portability of mobile devices have made them extremely effective for uses with permanent or temporary disabilities.

- 9) A range of possibilities arise out of this like sharing assignment and working as a group learners and practitioners can e-mails, copy and paste text, or even 'beam' the work to each other using the infrared function of a PDA or a wireless network such as blue tooth.

Objective 2) To study the effectiveness of Android Mobile Technology in Teaching Science.

Finding :

Table 1

Subject	Group	test	N	Mean	sd	t value	Level of Significant
Science	Control	Post test	15	21.93	6.50	1.92	Not Significant
	Experiment	Post test	15	23.46	2.03	15.13	Highly Significant

The above table represent post test score of control & experiment group. The value indicates that it is high impact of Android mobile Technology on students achievement. Hence it indicate a significant impact of Android Mobile Technology on student achievement when they use Android Mobile in science teaching learning.

Conclusion :

The present study depicts an understanding of various use of Android Mobile for students & teachers. Therefore the study has become helpful in making effective teaching & leaning strategy.

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