



## Enhancement of quality education and academic performance through mobile technology: A conceptual framework

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### Abstract

The paper focuses on enhancing quality education and academic performance of Indian students through mobile technology. Quality education is essential for young minds to generate common sense, reasoning, and vision. It is the sole way to convert latent knowledge into wisdom. It combines both personal and social objectives. It is the first and foremost determinant of prosperity, success and opulence. The progress of a nation depends on education imparted in classrooms, so the role of classroom increases to ensure the quality of education significantly. It eradicates ignorance which is the root of all hurdles. It develops reasoning, analytical thinking and decision making. Academic performance is a high indicator of academic recognition and mental health. It contributes much to a student's life, so improving academic performance is mandatory. Technology plays a pivotal role in determining the teaching-learning process engaging, encouraging and favourable from pre-primary to college levels. Technology must take a relevant place in the classroom to enhance the quality of education and academic performance significantly. The smartphone is a unique package of technological and informational advancements compactly. It is an inexpensive, user-friendly, simple, productive, flexible, handy, compact, efficient and personal. It facilitates calculator, calendar, recorder, camera, scanner, collaborative learning, real-time connectivity, data transfer, audio-visual learning and useful applications. It is now equipped with windows and internet too. It assists teachers as well as learners to cope with stress and pressure of teaching and learning. It boosts the quality of education and academic performance while making learning skills accessible, feasible, relevant, exciting and pleasant. It empowers learners unbiasedly. It assists in grasping new paradigms. The chief aim of the teaching-learning process is developing skills and generating knowledge pleasantly rather than tediously and prosaically. Mobiles, notebooks, iPods, iPads and tablets are popular devices for mobile technology.

**Keywords:** mobile technology, quality education, academic performance, Indian students

### Introduction

Education ignites human minds to differentiate between wrong and right, justice and injustice and etiquettes and indecency so each person must acquire such insight. It is well known to all that only quality education can inculcate insight as well as pave the path to success, prosperity, happiness and peace. Education is the sole way to holistic development. It shines the surface as well as the core of an individual who contributes to his personal and social needs. It widens human understanding and knowledge. It is a panacea to all personal and social evils, so quality is needed. The future of a nation depends on shoulders of young minds.

French statesman Jacques Delors chaired *Learning: The Treasure Within*, Report to UNESCO of the International Commission on Education for the Twenty-first Century perceived education for whole life based upon four pillars: *Learning to know* focuses on making efforts to acquire expertise and building own knowledge, *Learning to do* emphasizes on practice and application of learned inputs, *Learning to live together* strengthens the adaptability and amiability for life free from prejudices and biases so all have equal chances to advance themselves; their children and their societies, *Learning to be* stresses upon learned inputs to grow

and develop to its fullest possible heights or potential. This framework of education encircled all dimensions of learning for life which exhibits and evokes quality education.

Education imparted in classrooms is a powerful tool for abolishing all evils. In this context, In Education Commission report (1964-66), Dr. D.S. Kothari started the report with the statement that, "The destiny of India is now being shaped in her classrooms. This, We believe, is no mere rhetoric. In a world based on science and technology, it is education that determines the level of prosperity, welfare and security of the people. On the quality and number of persons coming out of our schools and colleges will depend our success in the great enterprise of national reconstruction the principal objective of which is to raise the standard of living of our people (p.1)".

Academic performance generates positivity and negativity; high academic performance has a positive impact while low academic performance may play a negative role in shaping young minds. So it is compulsory to assist students to increase academic performance and make teaching-learning process pleasant based on enjoyable activities; learning while playing. Students can focus and study if the content is presented with challenging and engaging activities. A teacher can impart quality education and help students to upgrade academic

performance quickly if he has access to computer technology and projectors, but it is not feasible for each school and college to have such facilities. There is only one alternative; mobile technology is an answer. Understanding technology is vital, indispensable, inevitable, momentous, and significant determinant for improving the quality of education and academic performance. Technology can assist a teacher to ameliorate the quality of education as well as academic performance.

The World Conference on Education for All (1990) had three principal objectives:

1. "To highlight the importance and impact of basic education, and renew commitment to make it available to all
2. To forge a global consensus on a framework for action to meet the basic learning needs of children, youth and adults.
3. To provide a forum for sharing experiences and research results to invigourate ongoing and planned programmes (p.9)".

It is well known that only expanding access is incomplete for education to cater knowledge and skills fully. For children's cognitive development, it was focused on enhancing the quality of their education. The Dakar Framework for Action (2000) declared that each child has right of quality education. It asserted that "Quality is at the heart of education, and what takes place in classrooms and other learning environments is fundamentally important to the future well-being of children, young people and adults. A Quality education is one that satisfies basic learning needs, and enriches the lives of learners and their overall experience of living (p.17)".

It has been clear that quality education is extremely relevant for each as well as society. It has a magnetic power and positive effect to nurture and cultivate young minds. It requires such technology as it must be feasible, accessible, efficient, productive and useful for both the teacher and learner. After perusal, mobile technology is the answer. Most students have access to mobile personally or impersonally, but using it as technology is not known to all. To make acquainted all with it to apply its features as a technology for teaching-learning process is a challenging and exciting feat. This technology is mobile technology, the name itself shows moving or fast technology. It can assist students to develop interest and curiosity in learning to improve quality education and academic performance.

### **Definitions of key terms**

#### **Quality Education**

Quality Education consists of various dimensions of an educational system which refers worthiness, usability, and relevance of teaching-learning process for the individual as well as society.

#### **Mobile Technology**

Mobile Technology is the application of rapid technological and informational progress to elevate efficiency and productivity at one hand, personally, compactly and fast.

#### **Academic Performance**

Academic Performance exhibits how much a learner has learnt

and performed in a fixed set of teaching-learning curricula, activities and period.

Crow and Crow define Academic Achievement (1969) as "the extent to which a learner is profiting from instructions in a given area of learning, i.e., achievement is reflected by the extent to which skill and knowledge has been imparted to him".

#### **Quality education: What and why?**

The first question arises, what is quality education? Education has no significance unless it provides at least blueprint of fidelity, common sense, wisdom, rationality, flexibility, justice, equality, fraternity, eloquence and demeanour. It develops a common sense to know a child well. Quality Education refers understanding of attitude, aptitude, interest, mood, nature, cognition, emotions, challenges and issues of a child. It refers proper understanding, absorbing and applying learned skills, knowledge and instructions to be a rational, adaptable, progressive and humble human being. It checks and eradicates irregularities in imparting learning skills which facilitate learners to face practical challenges.

Now second, a very vivid question arises, why is quality education required? The progress rate of a nation depends upon the quality of education provided to young minds. A child can play a pivotal role to ameliorate society and nation if he receives a quality education. The need for quality education emerged due to negligence, irregularities, infidelity and deterioration in existing educational system, so it was felt to augment quality, relevance and adaptability of education. Quality education is just to obtain objectives to its fullest potential. It emphasized on catering optimum development of a child who is a pillar of the nation. It focuses on cognitive development, creativity and emotional intelligence as well as instructional learnings, skills and knowledge. It is need of the hour to accelerate the holistic development of a child, family, community, society and nation.

#### **Understanding Academic Performance**

Academic performance exhibits how much a learner has learnt and performed in a given set of teaching-learning process. It is the academic accomplishment or achievement. It reflects a blueprint of a learner's academic progress. It is positively correlated with academic status. Academic status denotes social recognition and acceptance in academic life. High academic performance evokes an image of a sincere, hardworking and dedicated learner while low academic performance shows a learner as an insincere and careless. It is a report card of a student at particular duration. It conveys a layperson about a student how he or she has performed at a specified period.

Academic performance plays an exceptionally significant role in determining recognition, praise, rewards, mental health, emotional maturity, balanced personality and social affirmation. It is the soul and breath of academic life. It creates healthy and conducive competition among students to bring out creativity and excellence at fore. It leads to achievement, affluence, opulence and quality education. It is an essential and integral part of academic life. It encourages for betterment so the teachers, educators, educational planners and administrators must keep in view how a learner can

improve academic performance while receiving a quality education.

### Relevance of Mobile Technology

In this Era, mobile is irrefutable; formerly it used to function as a medium of communication, gradually its function developed into entertainment. Now it has come into schools. Many people may think that it distracts students from their study, but it is not justifiable not to use it on behalf of its misuse. If guidance is provided to students how to utilize it to an optimum level, they will use it favourably. It is not reasonable solely to focus on negative sides, but the teachers and parents must guide and make aware them about its benefits.

“The assumption that technology injected directly into our existing educational system will uniformly benefit all children is overly simplistic and inaccurate. This study reasons that technology can improve academic performance only if it is delivered hand-in-hand with a learning-oriented school environment and changes in the traditional teaching model, which encourages learning and intellectual activity in children (Du & Anderson, 2003, p.2)”. It is perspicuous that technology alone cannot amend the quality of education and academic performance unless it is guided by a goal-oriented, dedicated and industrious team. Thus it is better to use mobile technology rather than avoiding its profits on account of limited drawbacks.

Each student cannot afford expensive technology, so mobile is the best alternative. It is handy, efficient, productive, and powerful. Mobile technology plays a pivotal role to improve quality education as well as academic performance. It expands skills, abilities and knowledge. It causes interest among students for using apps, websites and other features.

UNESCO hosted the second mobile learning week (MLW) from 18-22 February 2013 at its headquarters in Paris, France to understand the contribution of mobile technologies to achieve education for All (EFA) and to focus on enhancing education access, quality and equity. MLW (2013) focused on three particular objectives which are related to mobile technology.

1. “Improving levels of adult and youth literacy; how can mobile technology support literacy development for young people and adults?”
2. Strengthening the quality of education; how can mobile technology support teachers and their professional development in order to improve the quality of education delivered to students?”
3. Achieving gender parity and equality in education; how can mobile technology support gender equality in education and extend opportunities to women and girls in particular (p.2)”? ”

### Functions of mobile technology

There are many significant functions of mobile technology. Smartphones facilitate learning apps, media apps, social apps, shopping apps, beauty apps, banking apps, travel apps, lifestyle apps, gaming apps and educational apps. These are following essential functions of mobile technology.

1. **Internet:** Internet plays a notably crucial role in the teaching-learning process. It keeps updated and connected

with all the new pieces of information.

2. **YouTube:** YouTube is an excellent platform for audio-visual learning. It is conspicuously informative and enjoyable way to learn well and quickly.
3. **E-book reader:** There are many apps for mobile technology on E-book reading. The learners can study while enjoying.
4. **Recorder:** It is an excellent function of mobile technology. It is convenient; it is a boon for visually challenged learners.
5. **Calculator:** It is quite efficient for lengthy calculations. The student can learn and solve mathematical problems correctly and rapidly.
6. **Dictionary:** Now dictionaries are installed or available in mobile devices so that learning has been exciting and productive.
7. **Pronunciation and vocabulary apps:** There are many pronunciation and vocabulary apps. Students can improve their pronunciation, intonation, stress and rhythm. Vocabulary apps assist learners in increasing vocabulary, fluency and eloquence.
8. **Language apps:** Now the quest for learning foreign languages has been an easy task due to the availability of language apps.
9. **Scanner:** It is an essential requirement for students as well as teachers; they can scan their documents using apps.
10. **Collaborative learning:** Today it is the time of combined learning. Mobile technology encourages learners for collaboration so that they can expand their skills and knowledge.
11. **Real-time connectivity:** Mobile technology paves the path for real-time connectivity; the learners can discuss and ask queries.
12. **E-banking:** It is a surprising function of mobile technology. It saves time, paper and distance. Online payment and transfer of money are a fast and hassle-free feature.
13. **Wi-Fi and Wi-Fi hotspot:** Mobile devices are connected to Wi-Fi and Wi-Fi hotspot to access resources.
14. **Cloud computing:** It is relevant for storing and sharing files.

### Benefits and Challenges of mobile technology

It is flexible, user-friendly, handy, compact, inexpensive, usable, multifunctional and enjoyable learning. There are numerous challenges of mobile technology; it is nobler to understand its challenges and issues to ameliorate it. Elias (2011) highlighted significant challenges as small screen size, poor resolution, colour and contrast, slow download speed, awkward text input and limited memory (pp. 145-146). These are significant issues which need to be analyzed and kept in view before using mobile technology. (Crescente & Lee, 2011) made a perusal of its benefits and its issues in these words “As already stated, a few m-learning advantages are mobility, flexibility, and convenience of time and place. A few other potential advantages are an increase in productivity; a decrease in training costs; mechanisms for rapidly updating material; and a more rewarding learning experience. In contrast, some of the challenges for implementing an m-

learning program are limited screen size and resolution; lack of ubiquitous access; cost; technical support, the risk of distraction; and the danger of sudden obsolescence (p.117)".

"To anticipate innovation, the political, social, and other factors influencing its progress must be systematically monitored (Bright, 1970, p. 62)". Monitoring mobile technology for constructive use is necessary. The teachers and parents must support and guide the students for amelioration the quality of education and academic performance. Guidance and monitoring inculcate positivity for mobile technology among young minds. They can use it for betterment instead of wasting their time and resources.

### **Educational Implications**

Mobile technology is the need of the hour. It can escalate access, quality and equity. Quality education is the most significant factor for opulent individual and social life. Academic performance plays a vital role to encourage students to keep interest in the teaching-learning process. If a student achieves high grades or marks, he or she will get motivated to do better. Mobile technology is remarkably flexible, handy, compact, usable, the convenience of time and place, productive, and efficient. It has numerous functions such as Internet, YouTube, E-book reader, Recorder, Calculator, Dictionary, Pronunciation and vocabulary apps, Language apps, Scanner, Collaborative learning, Real-time connectivity, E-banking, Wi-Fi and Wi-Fi hotspot, and Cloud computing. Students can learn while enjoying and playing games. It is an exhilarating and enjoyable learning process. They can utilize it according to their schedule.

It fascinates them towards learning and increasing skills and knowledge. The teachers can impart lessons and learning skills quickly and interestingly. Internet keeps them updated and provides useful resources. YouTube is a useful multipurpose platform for audio video learning. It is exceedingly beneficial to them. There are many useful functions which will undoubtedly enrich the quality of education as well as academic performance. Each student wants to learn if one has interest and pleasure in learning activities. Thus mobile technology becomes relevant for achieving these goals. Education shapes the mind if it has relevance and quality. Mobile technology assists educators, teachers and students to learn more, to learn better and to learn usefully. It is good to use this technology to expand access, quality and equity. This technology does not differentiate people on any ground. It is extensively comprehensive and absorbing technology.

### **Conclusion**

Education is a process of holistic development of a person. It is inexorable to inculcate reasoning, logic, wisdom, skills, knowledge and practicality among young minds. One must be able to differentiate between wrong and right, good and evil, justice and injustice, logic and illogic, decency and indecency, and beauty and ugly. Thus the quality of education matters significantly. Quality education refers understanding and implementing basic needs and objectives through teaching-learning process. It creates a high bond between one and one's society. Mobile technology consists of various popular devices of its genre such as mobiles, tablets, iPads, iPods, and

notebooks. It is a robust package of scientific progress compactly and handy. It fascinates students as well as educators to learn while enjoying. It has numerous functions which attract them to utilize much. They can learn new skills quickly and anywhere. It is flexible, inexpensive, handy and user-friendly. There are a few limitations of this technology such as small screen size, battery life, and slow download speed. It is necessary to guide students to use this technology for betterment instead of wasting precious time and resources. Parents and teachers must monitor its use to encourage them for positive and fruitful results. In brief, it is highly goal oriented and propitious for serious learners.

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