

New Dimension of Education: Putting Education in “Educational” Apps

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Abstract

We have started using smart devices, new technologies, gadgets, apps, and multiple systems and services available over the internet long back (Kolås, L., Nordseth, H. & Munkvold, R., 2016). Technological advances have changed the educational system to an extent, especially since the shift took place due to COVID pandemic. Sruthi, P. and Mukherjee, S. (2020) have stated that, in the past e-year when education was on its digital vigor we have transformed a lot, but this shift has also brought about new concerns like; usefulness, what, how and when related to available applications. Present research attempt to identify the use of educational apps among secondary school students with the help of survey method. Data collected from 116 secondary school students and analyzed, presented in percentage. Data reveals the usefulness of educational apps in learning process.

Abstract:- Education, Educational Apps, Digital, Smart Devices, Gadgets, New Technologies

Introduction

In the 21st century, students are more motivated towards using a cell phone, laptop, tab for every impetus. This brings the world at fingertips and any information from anywhere can be accessed by a student. This decreases the probability of looking for information. The educational apps are one example widely used by students while searching for information. Every educational app has a distinctive feature which offers its own set of advantage and services. Learning is an perennial operation, and the focus has now completely shifted to eLearning. Educational Apps cover a significant part of eLearning.

Technology has had a significant impact on children and education over the last few decades. Education was once equated with money, but things have changed. Children’s education is no longer

a distant dream. Even average families can afford a mobile phone in which educational apps can be downloaded. Although there are two types of educational apps, paid and unpaid.

While there are a lot of options available, it is tough to find the best one that can make learning easy and effective. Many app developing companies claim that Children often find books to be tiring and dull, but replacing them with lively pages and moving animations can make learning a lot more enjoyable.

Advancement is the way to progress. In current time the outdated philosophies and techniques for instructing don't work. To relate with the current demand of the market students need to keep themselves updated with better approaches. Today is the period of recordings and digital broadcasts and youngsters can without much of a stretch learn through this intuitive media and subsequently instructors of current India need to stay aware of the current innovation. Most of the schools and universities in India have training program for students to upgrade their technical skills. There is no harm in doing that as one should be open to learning new things. Learning never stops in life, and for students to evolve, as a good learner needs to explore themselves, and educational apps act as tool for students to improve students' achievement and acquisition of digital literacy skills. They also help in 21st Century Skills, which is defined as the capacity to perform undertakings and address issues by utilizing instructive advancements conceptualized in three measurements: data, correspondence and morals and social effect. 21st century abilities incorporate assessing, and sorting out data, exploring, critical thinking, point characterizing, rebuilding, displaying, looking for, choosing, examining, mingling, and deciphering data in computerized conditions (Ananiadou and Claro, 2009).

1.2 Educational App development Industry

The Educational Apps development industry in India is roaring at a faster rate. The growth in the industry became more apparent when it yielded \$5.6 billion revenue in 2015 and there has been no overlooking ever since. It is estimated according to a report prepared by the App Annie, that- India's mobile download expects jump up to 22.7 billion in 2021. Apps of these apps, help make education more qualitative. With integration of technology into education matures, it has been predicted that technology would help make schooling affordable. In last few years, both students and teachers have grown to use educational apps, but the usage has significantly improved after the pandemic. The students and parents were first skeptical about the educational apps, but the pandemic has undoubtedly made things translucent.

Many online learning platforms started offering free access to their services, including platforms like BYJU'S, Khan Academy etc. BYJU'S, a Bangalore-based educational technology and online tutoring firm established in 2011, has now become the world's most highly valued edtech company. Since announcing free live classes on its Think and Learn app, BYJU'S has seen a 200% increase in the number of new students using its product, according to Mrinal Mohit, the company's Chief Operating Officer. The shift has also made the apps cheaper and that could also be a reason for the increase in the number of students.

Educational apps play an important role in education because they have the potential to allow more creative educational methods. They take learning tasks like practice and application outside of the

classroom so that they can be easily accessed and maintained. Educational apps capabilities have evolved from “portable information” to a more robust and credible standard, offering greater educational potential. Assessing and choosing the appropriate educational app is an issue which every student and parent consider before taking a decision. However, assessing educational apps raises a number of issues, the most important of which is defining the characteristics of an acceptable assessment that includes a clear description and conceptualization of learning.

Usage of educational apps

In India, education is rapidly becoming digital, with more students accessing educational apps, study materials and using online courseware and services. Educational apps have become a popular way for educators and developers to deliver content to students. Students from smaller towns are now educating themselves online, thanks to the country's burgeoning smartphone industry.

Meritnation, an online learning platform has put together a report highlighting the growth of online education in India by analysing its database of over 92 lakh students. Modern education, combined with a combination of educational apps, can do wonders for the average person, especially those who live in remote areas.

According to recent reports, educational apps offer a variety of benefits;

(i) Reducing the Gaps

The advancement of technology has aided in the removal of various flaws in the educational system. The relationship between teachers and parents is one of the most relevant issues. To bridge the gap between students and teachers, as well as parents and teachers, various apps are used. Any event, schedule change, or announcement will be communicated to students and parents.

(ii) Quality Interaction

Educational apps are assisting students in gaining a greater interest in their studies. They are assisting students in becoming more interested in their studies. Educational apps can also help parents and teachers communicate more effectively. When a child uses an app, it is the best time for parents to interact with them and assist them in the eLearning process.

(iii) 24/7 Availability

Study time in school and special classes is limited. A child should study in a specific school and tuition time slot, and they must clear their doubts during that period only. But after the introduction of educational apps, students can clear their doubts anytime and anywhere as it doesn't have any time limits and need of teachers. There are a bunch of educational mobile apps available.

(iv) Portability & Mobility

Educational apps are portable. Students could use them wherever they go and use in any setting where they feel pleasant. Learning is no longer limited to schools or homes with educational apps. Students are free to use them wherever they want.

(v) Sustainability

Educational apps are more sustainable as compared to the traditional learning techniques, which include a variety of papers, pencils, and pens. Furthermore, these apps enable students to quickly obtain reference notes by simply downloading them. Completing a lesson on a mobile app is also convenient and simple. Finally, because of this, fewer trees will be cut down each year.

(vi) Systematic Learning Activated

Education apps offer the opportunity to learn in a smart and systematic way. The entire content on an education app is organised in such a way that it increases a student's ability to learn more and in a standardised manner. Students can follow a smooth and logical flow without exerting much effort using a high-end educational app.

(vii) Students prefer Apps

The current generation enjoys spending time on their phones. They prefer to use mobile apps for shopping, entertainment, games, and learning. Studying is something that most students dislike. But if we connect their boring activities into interactive activities then they will love study. (Ravi Makhija, Founder & CEO Guru Technolabs)

With the rise of new technologies, the education sector is also upgrading their capabilities. This upgradation costs them initially but, but it pays off handsomely in the long run. As a result, the number of educational apps is rapidly growing.

There has been enough debate about the educational apps replacing teachers in the coming year. But the essence of a teacher can never be replaced by any technology. This study focuses on discovering the use of the educational apps. How these apps affect the learning of the secondary school students and how educational apps help achieving better results for students.

1.3 Statement of the problem

To explore the impact of educational apps on the learning of secondary school students.

1.4 Objectives of the study

1. To identify the use of educational apps among secondary school students.
2. To study the effect of educational apps on the secondary school learning.
3. To study how educational apps help achieving better results for students.

1.5 Research questions of the study

1. What is the use of educational apps among secondary school students?
2. What is the effect of educational apps on the learning of secondary school students?
3. How educational apps help achieving better results for students?

1.6 Need of the study

According to Heraclitus the change is the only constant in life. This change is not only limited to the life choices, preferences but also methods and tools of education. One such example is abrupt transition from conventional to remote learning as a result of the Covid-19 pandemic. Since independence, education has undergone tremendous changes, but the introduction of technology into

the education has changed everything. One such change includes educational apps. There has been significant increase in the educational apps around the globe. It has changed the teaching and learning in various ways.

Therefore, it is necessary to study the impact of educational apps to understand its effect on the learning of students. The study is significant to educationist developers, policy makers, educational institutions, curriculum developer, teachers, parents and students.

1.7 Delimitation of the study

The study was confined to the secondary school students of private schools of Delhi and Noida. The secondary school students of only urban area would be part of the study, where the secondary school students from rural areas would not be included in the study.

1.8 LITERATURE REVIEW

Griffith S. & Arnold D. H. conducted a research in 2018 on “Home learning in the new mobile age: parent–child interactions during joint play with educational apps in the US” found that both parents and children were involved in the app interactions, with different roles. Children led the interactions and interacted directly with the screen while parents contributed to the interaction verbally, and provided help to the child. The data was collected from 36 four year old children and their primary caregivers. Data were collected during one 2-h home visit.

Simmons L., Crook A., Cannonier C. & Simmons C. conducted a research titled There's an app for that: The impact of reminder apps on student learning and anxiety in 2018. The study revealed that perceived usefulness of Homework Suite Planner app positively predicted students' executive functioning by increasing their organization and time management. It also increases in executive functioning due to the lower anxiety. The researcher collected the data from an end of semester survey and reported it to address our aforementioned hypotheses. A total of 300 undergraduate students were part of the study.

Hans G. & Sidana H. in their research on “Mobile learning application and its usage among students in education” in 2018 found that there were various advantages of mobile learning application like ERP software. In the education sector, mobile learning has become a beneficial additive in a formal learning. The researcher has done the study in the education sector. The researcher has conducted the survey among Post Graduation students of age limit between the 20- 28.

Pahade P., Akarte R., Kanugo P. & Deshmukh S. in their study on “Integration of Mobile Application in Education” in 2019 discovered that the process of Apps integration can form a bridge between two disciplines: Educational Technology and Computer Science. Also the outcomes can be relevant not only to universities but also to other education sectors, such as VET (Vocational Education and Training) secondary, and elementary schools. The researchers have conducted a preliminary investigation and analysis in order to support and validate the findings of their theoretical considerations.

Malik M. S., Javed A., Asmat H., Nosheen M. & Coustaty M., in their research on “Systematic review and usability evaluation of writing mobile apps for children” in 2019 found that as the number of functions in a mobile apps increases, the app's usability decreases. The subjective

assessment shows that in contrast to android activated smartphones, participants felt greater user experience with iPhone. A systematic review of total of 40 apps were chosen for usability assessment, including 20 iOS apps and the remaining 20 android apps.

Klimova B. in her research on “Impact of ‘Mobile Learning on Students’ Achievement Results in 2019”, found that the learning materials and tools, designed on students’ needs and continuously facilitated by a teacher, are effective in the enhancement of students’ performance. It also contribute to positive learning outcomes and confirmed that mobile learning can serve as an appropriate complementary method to other forms of course delivery because of its opportunities of frequent exposure to the target language. Case study research methodology was used, and a total of 33 students participated in the study.

Colliver Y., Hatzigianni M., & Davies B., in their research titled Why can’t I find quality apps for my child? A model to understand all stakeholders’ perspectives on quality learning through digital play in 2019 discovered that age appropriateness is demanded by researchers, consumer groups, educators and parents, and developers appear able to meet such demands. Age appropriateness concerns are also consistent with developers’ demand for brand trust. On the other hand, children’s likely demands for more choice and social interaction appear to remain unanswered. The researchers used literature available on consumers’, children’s and developers’ perspectives on quality for their study.

French D., McKillop D. & Stewart E. conducted a research in 2019 on The effectiveness of smartphone apps in improving financial capability used four smartphone apps, packaged together under the title ‘Money Matters’ which were provided to working-age members (16–65 years) of the largest credit union in Northern Ireland (Derry Credit Union). The smartphone apps consisted of a loan interest comparison app, an expenditure comparison app, a cash calendar app, and a debt management app. The study revealed that those receiving the apps expressed greater confidence in their understanding of loan repayments with loan confidence most pronounced for those utilising the apps more frequently. This also improved financial literacy.

Harris J. & Crwaford L. in their research in 2020 titled “Exploring the Integration of Technology in a Holistic Special Educational Setting” found that technology indicates a benefit to speech development for children dealing with intellectual disabilities and developmental delays. The responsibility of educators includes providing access to all communication methods that allow children to participate in the world through communicating their needs and engaging in the social milieu. The study was conducted in Camphill School, located in the United States.

1.9 Sample

This study employed purposive sampling technique for the selection of sample. The data was collected from the secondary school students of private schools of Delhi and Noida. The google form was shared with 120 secondary school students out of which 116 secondary school students have responded by giving their opinion.

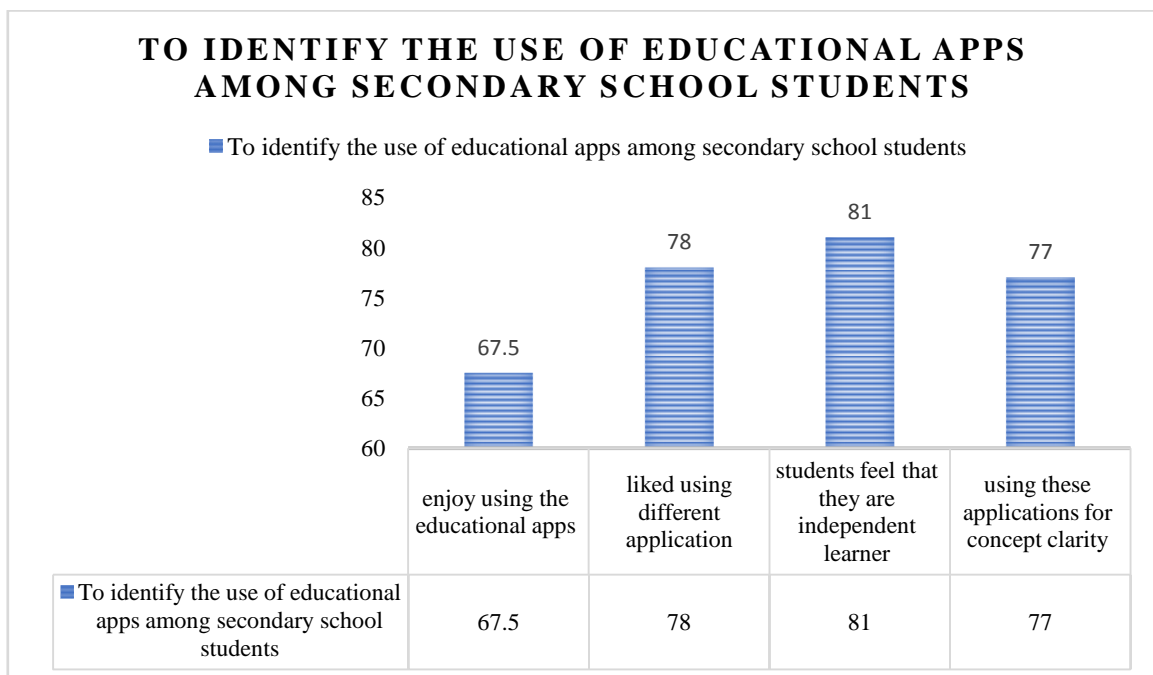
1.10 FINDINGS OF THE STUDY

The study established that the impact of educational apps on the learning of secondary school students is significant. Students have acknowledged the impact of educational apps. The usage of educational apps has increased among the students. But even after increased usage ,majority of the students are using unpaid apps. The students have also accepted that their results have improved after using the educational apps. The research intentions were to identify the impact of educational apps on the learning and achievement of the students of secondary school.

Objective 1: To identify the use of educational apps among secondary school students

The study revealed that 77.8% students are using educational apps and the majority of the student population is dependent on unpaid educational apps. The probable reason for unpaid educational apps could be less reliability among the parents and students. The availability of free study material and videos could also be a reason. Majority of the student (67.5%) enjoy using the educational apps and feel active and curious when they study a concept on the educational apps. 78% students liked using different application. The study revealed that students feel that they are independent learner 81% students back this statement and they don’t need their parents help to use the apps. The study also found that students find educational apps useful. Students are using these applications for concept clarity most commonly. 77% students nodded for this.

As per the study it may be constructed from the above summarization that majority of the students are using the educational apps which are unpaid.

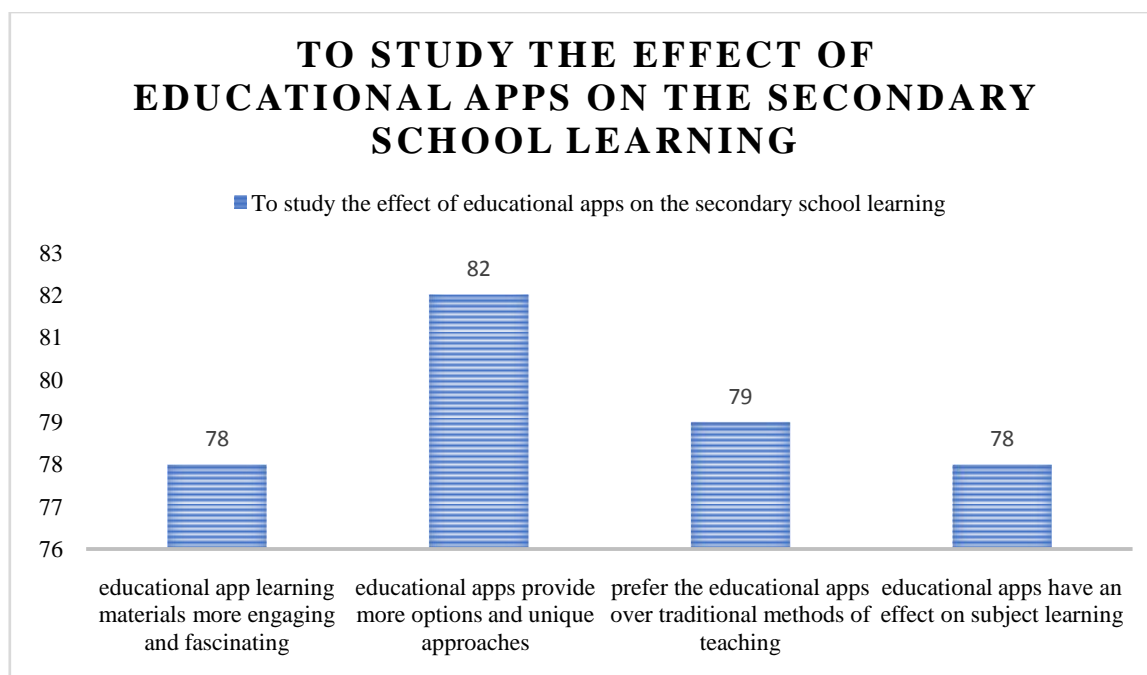


Objective 2: To study the effect of educational apps on the secondary school learning

To some extent secondary school students are in favour of the educational apps. They find Educational apps interesting than the traditional methods of teaching and are also satisfied with the usage. Klimova B. (2019) has found the same result. According to the findings, educational apps have an effect on subject learning and move at the learner's own pace. Students acknowledge that

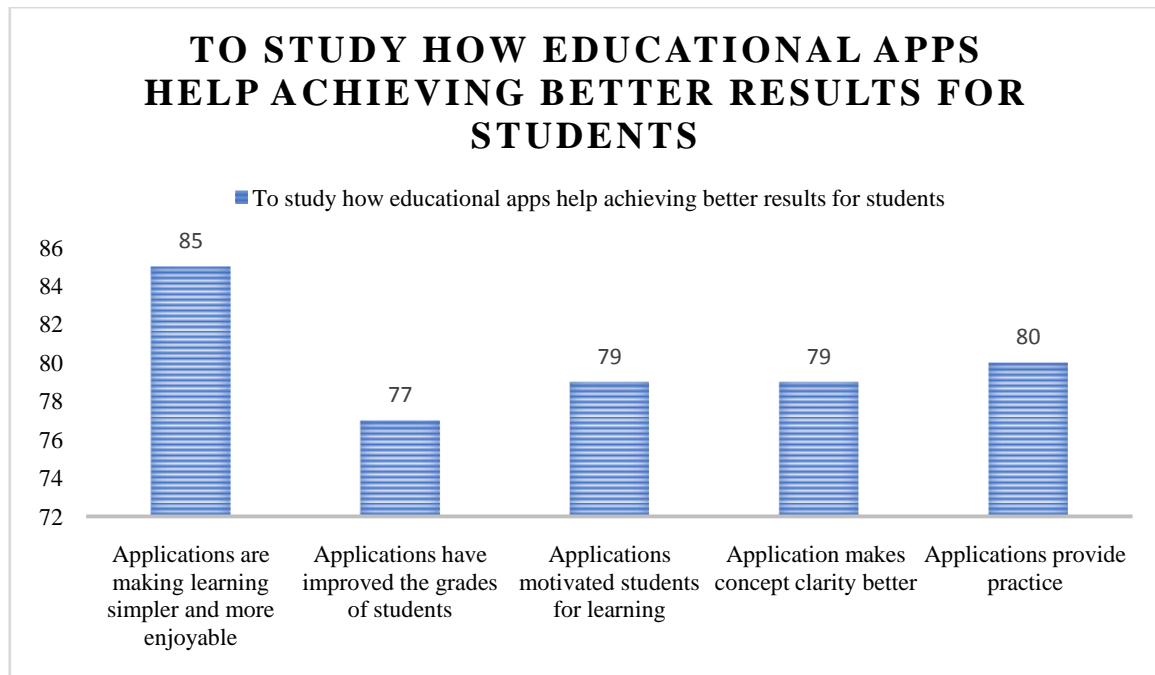
educational apps played a significant role in their learning during Covid-19. Every student in the country was affected by the sudden lockdown, but free lessons on educational apps with thorough lectures undoubtedly helped. The study also depicted that educational apps are easy to use and provide a useful forum for introverts who are hesitant to ask questions. The study also found that the majority of students considered educational app learning materials more engaging and fascinating than traditional printed textbooks. The study also revealed that educational apps provide more options and unique approaches to learn a particular topic.

As per the study it may be constructed from the above summarization that educational apps effect the students in a positive way and they prefer the educational apps over traditional methods of teaching.



Objective 3: To study how educational apps help achieving better results for students

The study depicted that more than 50% student's grades have improved after using the educational apps and they claim that educational apps have better resource persons, making learning simpler and more enjoyable. One of the reasons for the improved grades could be the better resources and personal interest in exploring new applications by students.



At the same time study also revealed that the educational apps lack personal touch and are distracting. Furthermore, the results showed that educational apps devalue social contact.

As per the study it may be constructed from the above summarization that educational apps help achieving better results for the students because of efficient resource person and enjoyable learning experiences.

Educational implication

Construction of teaching-learning material-Students are attracted to the educational apps' learning materials because of their unique approach, according to the findings. Teachers should prepare educational materials with this in mind.

Strategies in the classroom- Students feel hesitant to clear doubts in the classroom, but are confident to clear it on the educational apps. Keeping this in mind the teachers should adopt liberal and friendly methods in the classroom.

Personal touch in education-Students have agreed with the fact that educational apps lack personal touch. This could be used as a positive factor to integrate the importance of human values and relations in the classroom.

Varied learning methods by the teacher- To explain a single topic, the teacher should use a variety of methods. This would make concepts easier for students and if a student didn't understand from one method he might understand from the other.

Conclusion

As per the result of the study educational apps have positive impact on the learning of the students. The same result was given by Lopuch M. (2013). Students are using educational apps without any help of their parents. The maximum population is still using unpaid educational apps. Most of the

students strongly find educational apps useful in their learning process. The findings also suggested that students believe that educational apps move at their pace. Simultaneously, they also find educational apps distracting and believe that it lacks personal touch. Majority of the students have scored better after using the educational apps. The better faculty, simpler and more enjoyable learning materials, could be the reason for better grades. The study also revealed that students enjoy educational apps more than usual textbooks and are confident clearing doubts online. Results were similar to those of Sunil S. & Nair S. (2017). These factors have undoubtedly enhanced students' interaction with educational apps because of which majority of them agreed that the educational apps have improved their grades.

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