

The impact of modern technological Gadgets on the learner's behavior

– The case of Smartphone-

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Abstract:

This research aims at shedding light on the impact of the modern gadgets on the didactics by the pupils or the learners in general we chose the smart phone used by those learners in their studies. We established a questionnaire destined to some pupils and some students and also some parents to foresee their opinions about this matter. In the end we mention all the results of this research.

Keywords: *Teaching aids; smartphone; influence; advantages and disadvantages; results; questionnaire.*

General Introduction

Nowadays, the use of technology is increasing day by day. It has become an integral part of the majority of the people daily lives. Gadgets are a kind of technology that are widely used by humans. These include tablets, laptops, and smartphones, which are becoming a trend in today's culture. This device provides all information and daily activities such as shopping, payment and entertainment. It facilitates many aspects and can be a very useful tool. Therefore, humans today are very dependent on it. Smartphone is not only used by adults but also children. They use it for playing and entertainment needs such as video games and entertainment applications. whereas adults use smartphone for communication, shopping, banking search engine and social media. The most important difference is that children do not have the ability to use smartphone wisely, so that is believed that without parental supervision, smartphone will have negative effects on child's behavior. As we know, smartphone is a double-edged sword, on one hand, it has benefits and on the other hand it will create many potential hazards and damage the next generation if it is not handled wisely.

The present work aims at highlighting the impact of technological gadgets {the case of smartphone} on learner's behavior and to know the nature of behaviors that the child acquired from the frequent and the overuse of smartphone. Through the study we seek to answer the following problematic:

What is the impact of technological gadgets {the case of smartphone} on child's behavior?

In order to investigate the above problematic, six research questions were asked:

- 1) To which extent is this impact on such behavior?
- 2) Which kind of impact do we speak about?
- 3) What are the advantages and the disadvantages?
- 4) Is the parental control necessary or not?
- 5) What are the awaited results?
- 6) What are the proposed solutions?

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The above mentioned questions led the researchers to propose the following hypotheses:

- 1) Smartphone provides a positive opportunity but, it has a negative impact on child's behavior
- 2) The control parental is very necessary so, parents have an important role.

I. Theoretical part:

1.1. Introduction:

Today's life style is technologically driven which is evident with the presence of electronic gadgets. Technology has been developing so quickly over time and now it has become important in our lives. Smartphone is one of the gadgets. Used by many people, because it facilitates many aspects, besides it combines different sophisticated features. It allows users to keep pictures, memories, personal information, communication, health and financial data in one place. Smartphone use is on the rise in other age groups as well, not just adults but also learners. Undoubtedly, smartphone as every technological gadgets has its positive and negative and may affect the child learner's behavior.

This chapter gives an outlook about the psychological and social impact, the history of technology, the invention of smartphone and its advantages and disadvantages and the internet. Moreover, the chapter sheds the light on the child, childhood and the behaviorism school. Furthermore, it speaks about the behavior modification plan and the importance of knowing a child's cognitive developmental stages. At the end it mentions the role of parents in monitoring smartphone usage.

1.2. The impact definition:

1.2.1. Definition:

- **Linguistically** (force of the) hitting of one object against another
- **Terminologically:** The impact is the provision of influences and changes in behavior and thinking and it is represented in the changes that occur as a result of exposure to various means.

1.2.2. Procedural definition: The impact is the result that appears through the use of a traditional or modern means of communication such as mobile phone through the behavior that shows the owner of this method and explains this effect.

1.2.3. Psychosocial impact: Psychosocial impact is defined as the effect caused by environmental and/or biological factors on individual's social and/or psychological aspects.

1.2.4. Social impact (influence): Social influence refers to the way in which individuals change their behavior to meet the demands of a social environment. It takes many forms and can be seen in conformity, socialization, peer pressure, obedience, leadership, persuasion, sales, and marketing. Typically social influence results from a specific action, command, or request, but people also alter their attitudes and behaviors in response to what they perceive others might do or think. (*Wikipedia, 2020*)

1.3. Technology:

1.3.1. Definition:

- **Linguistically:** (n) study and use of science for practical tasks in industry, business, etc.
- **Terminologically:** Technology is the set of knowledge, skills, experience and techniques through which humans change, transform and use our environment in order to create tools, machines, products and services that meet our needs and desires. Etymologically the word comes from the Greek tekne (technical, art, skill) and logos (knowledge).

1.3.2. Technological Influence on Society: Technology affects the way individuals communicate, learn, and think. It helps society and determines how people interact

with each other on a daily basis. Technology plays an important role in society today. One aspect of technology that has had a great impact on society is how it affects learning. It's made learning more interactive and collaborative, this helps people better engage with the material that they are learning and have trouble with. Also, it gets you better access to resources. With the creation of the internet, it gives us access to information at a twenty-four-hour rate and you have access to almost anything online. In addition, it allows students to get work done easier. Students can take quizzes and exams more easily, and teachers being able to hold online classes can be very effective. It also expands the boundaries of the classroom, encouraging self-paced learning. People can access learning through YouTube and social media. This helps students learn better than sitting down for lectures and reading from textbooks. These technological advancements made learning more fun and convenient.

Another way technology has impacted society is through communication, how we talk and communicate with one another worldwide. Technology brought many new methods of electronic communication. For example, there are emails, social networking, you can facetime a person that lives on the other side of the world, and here's video conferencing where you can have conferences electronically. Lastly, the technological advancements that were made within the health industry have helped keep people safe and healthy. There are many innovate apps on phones that although people to watch their weight, how many calories they intake, heart rate and other health properties any time of the day. There's increased accessibility of treatment available, there's the change in healthcare that adds benefits for the elderly, and hospitals using advanced technology within their surgical rooms.

1.3.4. Technology and communication: The 21st century has brought unprecedented technological development. New and often disruptive products are appearing in all areas of life, while smartphones, the Internet, and social media have become indispensable. Technology has changed the way we communicate, while creating new privacy threats. In society, there is growing optimism about the possibilities technology offers, yet it is marred by an uneasiness regarding the implications of new technologies. Communication plays a pivotal role in all of this. As a communication professional, you can help popularize a given product, help improve, explain, and integrate a complex new app within an organization, or facilitate a public debate about the role of new technologies in our lives and society.

This specialization will give you a deeper understanding of the inseparability of communication and technology. You will be able to contribute to the debate about the interaction between technology and communication, such as the effects of a digital society on interpersonal communication, or the impact of smartphones on daily life. (*TWENTE, 2020*)

1.4. Smartphone

1.4.1. Definition:

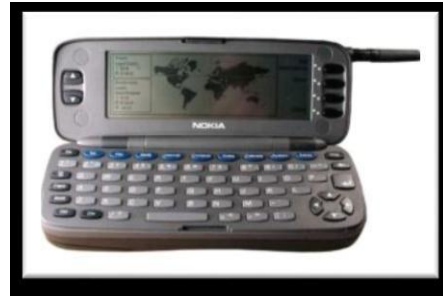
- **Linguistically:**(n) A mobile phone that can be used as a small computer and that connects to the internet picture of smartphone.
- A mobile phone that has software like the software on a small computer, and that connects to the internet.
- A cell phone that includes additional software functions (such as e-mail or an Internet browser).
- **Terminologically:** Smartphones are a class of mobile phones and of multi-purpose mobile computing devices. They are distinguished from feature phones by their stronger hardware capabilities and extensive mobile operating systems, which facilitate wider software, internet (including web browsing[1] over mobile broadband), and multimedia

functionality (including music, video, cameras, and gaming), alongside core phone functions such as voice calls and text messaging. Smartphones typically contain a number of metal–oxide– semiconductor (MOS) integrated circuit (IC) chips, include various sensors that can be leveraged by their software (such as a magnetometer, proximity sensors, barometer, gyroscope, or accelerometer), and support wireless communications protocols (such as Bluetooth, Wi-Fi, or satellite navigation).

Some Smartphone samples:



The world's first smartphone



Nokia



Ericsson



Windows Mobile



The first iPhone



The first Android phone

1.4.2. The use of smartphone:

A smartphone is, in essence, a small computer in your palm. As a mobile device, it's as powerful as most computers and in some ways, more valuable.

Some of the most basic tools that people use with their smartphone is:

- Calls and texts - communication
- Email - sending and receiving
- Internet Access - news, shopping
- Business Productivity - documents, PDF, spreadsheets
- Camera - to produce/capture images and videos

- Calendar app - schedules, appointments, etc.
- Video/Music - play/listen on the go
- Games - You can download into phone or play online
- Books - kindle and iBook's are huge with smartphone users
- Social Media - the gorilla of App usage with smartphones. (*Pothitos, 2016*)

1.4.3. Smartphone features.

Primary Built-In Applications

- 1) Phone and contact address book
- 2) Texting
- 3) Video calling (Apple FaceTime)
- 4) Web browser
- 5) Email
- 6) Weather
- 7) Predictive typing
- 8) Voice dictation
- 9) Voice-activated virtual assistant
- 10) Alarm clock, stopwatch, timer
- 11) Calculator
- 12) Calendar
- 13) Note taker
- 14) Music player
- 15) Photo album
- 16) Camera (still and video)
- 17) GPS navigation
- 18) Flashlight
- 19) App store search

Available for Download

Following are handy program categories out of the thousands of free and paid apps. Depending on model, some of the following may come with the phone.

- 1) Flashlight**
- 2) Dictionaries, encyclopedias
- 3) News, weather and stock markets
- 4) Video calling (Skype, Tango, etc.)
- 5) Games and entertainment
- 6) E-book reader
- 7) Language translators
- 8) Retail store finders
- 9) Mobile tag readers (see QR code)
- 10) Converters (money, measurements)
- 11) Magnifying glass and mirror
- 12) Internet radio
- 13) Music identifier
- 14) YouTube viewer
- 15) Voice recorder
- 16) Emergency message sender
- 17) Compass.

1.4.4. The advantages and disadvantages of smartphone:

Smartphones are the friendly gadgets which have made everything reachable through a touch. They have occupied such a huge place in our daily lives that it is no wonder that for most of us, a smartphone is the first thing we look at in the morning and it is the last thing we see before going to bed.

Now, there will certainly be some advantages and a few disadvantages while using any electronic gadget. Let's observe them:

Advantages

- ✓ Keep your family in touch, either through calls, text or images, which express the feeling in a sweet and amusing way.
- ✓ You may know where you are and find easy ways and routes to go anywhere, especially in an unknown place.
- ✓ You can make the world listen to your voice in a touch.
- ✓ You can spend your time wisely reading the news or doing some official work.
- ✓ You Can entertain yourself with games, music or movies.
- ✓ You Can always be available socially.
- ✓ Can avail the Customer service offers to be easily accessible.
- ✓ Food and groceries can be ordered online.
- ✓ Email and Banking become easy.
- ✓ Endless apps are available to make your dreams come true.

Disadvantages

- The electromagnetic radiation will be high because of the heavy internet usage and might lead to health problems such as a brain tumor and Skin Cancer.
- The HEV light emitted from the screen of a smartphone leads to severe eyestrain during long-time use and would slowly damage the retina.

Even many psychological issues such as loneliness, being suspicious all the time, feeling self-centered etc. are caused by using a smartphone and being online, for most of the time.

- Spending most of the time on your phone creates neck problems and sleep deprivation.
- Exposure to unwanted things on the internet affects a child's growth mentally and even physically.
- As too much of anything is good for nothing, depending on a smartphone for everything makes you addicted.
- Being online for most of the time keeps you away from having real experiences and having real friends, to share your mind.
- Having checked all the time for online security, you start losing trust in people around you.
- Forwarding the messages and sharing the videos online regarding humanity, one might forget the real meaning behind it.
- With all these things around, the family life gets affected.
- Few of them get really addicted that they text or watch videos while on roads and talk on the phone while driving, which causes serious trouble as being busy makes you react slow.
- Chances of losing money due to fraudulence on the internet.
- Usage of Apps by not having complete awareness might lead to the leakage of personal information, which could be really dangerous.
- With every emerging new model, there come new features which are really tempting to use and you may get into the crazy whirlpool of going for new models always. (*The advantages and disadvantages of smartphones, 2019*)

1.5. The teenagers:

1.6.1. Definition:

- **Linguistically:**(n) young human being. Son or daughter.
- **Terminologically:**a child is a person between birth and puberty, or between p- the developmental period of infancy and puberty. Legally, the term *child* may refer to anyone below the age of majority or some other age limit.

1.7. Youth:

1.7.1. Definition:

- **Linguistically:**(n). state or time of being a child.
- **Terminologically:** Youth is the time for children to be in school and at play, to grow strong and confident with the love and encouragement of their family and an extended community of caring adults. It is a precious time in which children should live free from fear, safe from violence and protected from abuse and exploitation. As such, childhood means much more than just the space between birth and the attainment of adulthood. It refers to the state and condition of a child's life, to the quality of those years.

1.8. Behavior:

1.8.1. Definition:

- **Linguistically:** the way in which someone conducts oneself or behaves.
- **Terminologically:** Behaviors are our actions and responses to feelings, emotions and needs.

All behavior has meaning and is closely connected to how we feel and what we think. If you are feeling happy, you may smile; if you are feeling hungry you may become irritable. Feelings themselves are neither 'right' or 'wrong', it is how we express these feelings that is important. When children are seen as having nice manners, are able to share with others and do as they are told, we think of them as being 'well behaved'. When children have temper tantrums, shout and stamp their feet, hit out at others or throw things, we think of them as 'bold' or 'badly behaved'. There is no such thing as a 'bad' child but there are behaviours that are not good. As with adults, a child's behaviour is an outward expression of the emotion they are feeling at the time and their behaviour, therefore, has meaning.

In psychology, **behavior** consists of an organism's external reactions to its environment. Other aspects of psychology, such as emotions, thoughts, and other internal mental

processes, don't usually fall under the category of behavior. Behavior may be modified according to positive or negative reinforcements from the organism's environment or according to self-directed intentions. (*Frye, n.d*)

Role of parents and teachers in learner's life and development.

School, teachers and parents play vital role in holistic development of the child. Parents are the first mentor of the child and the teacher is the second. Both have an immense contribution and responsibility in shaping child's personality.

Role of parents: Parents are the child's first role model. Children behave, react and imitate same as their parents. Parents play important role in encouraging and motivating their kids to learn. Good parental support helps child to be positive, healthy and good life long learner. Children acquire skills at the very early stage of their life if the parents are responsive and understanding.

Role of Teachers: Major challenges for teachers are to nurture children's learning and give him various experiences to face this challenging world. She molds the child to be a responsible and independent learner. Teacher is the first person from whom child learns his

social skills in school. Teachers make him comfortable and guide him the early concepts and developmental skills of life. Open minded, well balanced and a planned teacher has a great power to bring a positive change in the child's development. As the child grows and develops mastery in different skills, teacher becomes a real guide in nurturing his interest and learning to make him more independent.

Role of Parents in Child's Development: Parents play an important role in the overall development of their child. It is the right guidance of parents that develops the character of the child. Parenting is a never-ending job. It is not something you can get away from once the time comes, because children need their parents from time to time, to stay on the right track. The role of parents in child development is responsive, responsible and never-ending. It governs responses, actions, thinking and decision making of a child in the following areas.

1. Cognitive Development: When children are growing up, positive parenting improves their cognitive, social and problem-solving skills. Positive parenting also affects their responses and helps them grow up to be better humans. Interaction and stimulation are very.

2.Socio-Cultural Development

Children observe spousal interaction and how arguments are settled in the family. It teaches them a variety of good values that are imbibed and crucial to growing up. The child learns how to behave with others, playing to a common goal, team spirit, picking right friends and a lot more. (Kolambe, 2016)

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3. Physical Development

Reaching age-related milestones is not the only goal. Children learn about being healthy, exercising regularly, being a team player, having the right diet and growing in a conducive environment through the play and learn way. The right guidance from parents can inculcate in children a good regimen of exercise and diet to achieve ideal physical development. Parents should remember that children lead by example

4. Mental Development

Parenting styles help the child learn innovatively, accepting failures and overcoming them, understanding discipline, accepting feedback and the award and punishment concept. It governs their response to stimuli, thus molding their minds.

5. Spiritual Development

Understanding religion, prayer, knowing right from wrong, being empathetic, having the right ethical values, valuing your parents and strengthening goal setting liberates the free spirit in children. Teaching your children to be more accepting and believing in the greater good can help them gain a sense of purpose

Useful advices given to Parents

Youth naturally turn to the father to play and to the mother if they sense stress, fear etc...

1. Be Positive

Youth can easily sense negativity. No matter how young your learner is, discuss your problems with him and how you handle them. Encourage your child to participate with you in different small household tasks. Teach him how to be creative and how to solve problems with a positive attitude.

2. Be Sensitive to Your learner's Needs

Irrespective of how small your child's needs are, understanding and fulfilling them is very important to help your child realize that you are there for him at all times and that his needs never go unheard.

3. Be Emotionally Present

Encouragement and love yield good fruit only when they are cultivated, worked on, nurtured & pruned. Show your child that he is loved all the time and that you are always there for him, no matter what.

4. Communicate Effectively

Talk to the child and hear what he has to say before jumping to conclusions. In every conversation, make sure you think from your child's perspective and let him express himself. Remember, positive feedback is always better than negative punishment or blames.

5. Be Affectionate to All

Children pick up what they see/hear at home. To a child, using harsh words, quarrelling loudly, fighting constantly, incorporating bad habits and swearing feels absolutely normal if he sees the same at home.

6. Set Routines for Play, Eating and Sleep

A good routine can help set good habits for the future. If you stick to a fixed routine, eat and sleep on time, refrain from watching the television during meals, then your child too will pick up these lessons and follow a routine.

Advertisement**7. Make Family Outings a Part of Your Routine**

Remember, the family that eats and prays together stays together! Encourage your child to have family meals together and teach him the importance of spending quality time with family members.

8. Talk to the Child Even when Tired

Hard work gives immense satisfaction and the reward for you is watching your child learn how to deal with problems, how to deal with financial insecurities, how to interact with others and how to be a little like you. So talk to your child no matter how tired you are at the end of the day. He will learn the same and be there for his family, just like you.

9. Build Trust, Love and Fair-Play in Relationships

Best examples are between the parents, in dealing with siblings and especially in quarrels. If you behave rationally with all the family members, then your children will learn the same and will end up loving and caring for all without discriminating.

10. Help Your Child Understand the Importance of Speaking Right and Honestly

Make sure your child values honesty, especially when it comes to matters that involve relationships and money. teach him that no matter what, he should speak the truth and stick to what he says.

Also, inculcate in your child a sense of responsibility.

11. Assure Your Unconditional Love and Support

If your child fails at something, make an effort to understand why and what to do before you criticize him. But over that, tell him that mistakes do not reduce the love between people. Just remember supportive families encourage each other to learn and offer the possibility to be better. (Nair, 2018)

Introduction:

The second part is devoted to an explanation of the research methodology and design. Focusing on data collection and analysis. it is used as a descriptin of a case study concerning the impact of technological gadgets (the case of smartphone) on the child's behavior. First, it represents the objectives of this research work. Later, it describes the research instruments used in this research. It introduces the sample population followed by analysis methods used in this case study. Finally, this chapter denotes the analysis of the collected data and gives a discussion of the main results.

Research objectives:

This research work aims at providing data that can help to know the impact of using smartphone by children and its impact on their behaviors. The main purpose of this study is to know also the nature of behavior that the child acquires and the role of parents and educators in monitoring smartphone usage.

The sample population:

The informants were parents of children aged between 4 to 12 years old. They were selected to respond to the research instruments addressed to them. However, from this large population, we have dragged a sample population of 80 parents. In fact, the respondents have been randomly chosen to represent the whole population because all of them had the same chance of being selected.

The parents' profile:

The parents involved in this study were 80 parents 51 female and 29 male. they were randomly selected to answer a questionnaire prepared to achieve the objectives of the current study.

There were many reasons which led us to choose this topic. among them, mostly of parents are worried about their children because of using smartphone and today's children have become avid users, the time they spend on this device is increasing rapidly.

The research instruments:

The present work was developed through the use of a questionnaire and an interview.

Date analysis methods:

To analyze the questionnaire, we depended on a mixture of data analysis methods which are quantitative and qualitative data analysis. Using a combination of quantitative and qualitative methods helped us to obtain better results.

Analysis of parents' questionnaire:

The questionnaire consists of 24 questions, the sample consists of 80 parents 51 female and 29 male and the children are aged between 4 and 12 years old. parents were randomly chosen in Tlemcen city. We have focused on the information that helps us in our research such as gender, standard of living, the educational level, and the marital status. We have given clear information about the questionnaire and for what reason it is designed.

Sample's data analysis:

Category	number	percentage
Father	29	36,25%
Mother	51	63,75%
Total	80	100,00%

Table (2.1): Distribution of sample according to the gender

From the above table and pie chart, it can be noticed that the percentage of mothers is 63.75% and that of the fathers is 36.25%

So, it can be understood that the percentage of mothers is the highest because they are the closest to their children, but fathers are often busy outside home.

Question1: what is your highest educational attainment?

Educational Level	Number	Percentage
Illiterate	4	5,00%
Primary	15	18,75%
Middle	19	23,75%
Secondary	21	26,25%
University	21	26,25%
Total	80	100,00%

Table (2.2): The educational level of the parents

It can be understood from the above table and pie chart that the secondary and university educational levels have the same percentage with 26.25%. The average level with 23.57%. The elementary level with 18.75%. Illiterate with 5%.

So, it can be noticed that the parents who have secondary and university educational levels have the highest percentage therefore, this category is very interested in technology.

Question2: Is your standard of living low, average or high ?

Standard Of Living	Number	Percentage
Low	10	12,50%
Average	45	56,25%
High	25	31,25%
Total	80	100,00%

Table (2.3): Parents' standard of living

From the above table and pie chart, it can be understood that the percentage of parents who have an average standard of living is 56.25%. Parents who have a low standard of living is 12.5% Parents who have a high standard of living is 31.25%

We can notice that the majority of parents have an average standard of living. The aim of this question was to know who is the most interested in buying a smartphone.

Question3: Are you married, divorced or widowed ?

Marital Status	Number	Percentage
Married	40	50,00%
Divorced	22	27,50%
Widowed	18	22,50%
Total	80	100,00%

Table (2.4): The marital status of parents

From the above table and pie chart, it can be understood that:

50% of parents are married.

27.5% of parents are divorced.

22.5% of parents are widowed.

The aim of this question is to know if the social status of parents is one of the reasons that push the child to use smartphone.

Question5: What kind of mobile do you have?

Mobile's Kind	Number	Percentage
Simple Mobile Phone	20	25,00%
Smartphone	60	75,00%
Total	80	100,00%

Table (2.6): Phone's type that the sample possesses.

From the above table and pie chart, it can be understood that: Parents who have a simple mobile phone with 25%. Parents who have smartphones with 75%.

So, one can notice that respondents who prefer smartphones have the highest percentage because of technology which has become an integral part of the majority of the Algerian daily lives and because of the necessity of the smartphones too. Moreover, recently the prices of smartphones have decreased which have made them easy to own.

Question6: What do you think about smartphone? Is it useful or useless?

The Unswer	Number	Percentage
Useful	76	95,00%
Useless	4	5,00%
Total	80	100,00%

Table (2.7): The importance of smartphone.

From the above table and pie chart it can be understood that 95% of answers were: Useful. 5% of answers were useless.

Therefore, the most of respondents think that the smartphone is useful, practical and a convenient device that they can use it to make their daily activities easier.

Data of children's use of smartphone**Question7: Does your child use smartphone ?**

The use/ answer	Number	Percentage
Yes	78	97,50%
No	2	2,50%
Total	80	100,00%

Table (2.8): Children's use of smartphone.

From the above table and pie chart, it can be understood that the majority of children use smartphones with 97.5% and 2.5% for children who do not use it may be they are young or sick.

We concluded that the most of children use smartphone because of its games, applications and videos that attract their attention and fulfill their desire.

Question8: At what age did your child start using smartphone?

Age	Number	Percentage
(4 – 6) years	29	36,25%
(7 – 9) years	26	32,50%
(10 – 12) years	25	31,25%
Total	80	100,00%

Table (2.9): The age when the sample's children started using smartphone.

From the above table and pie chart, it can be understood that children between (4–9) years with 36.25% and it is the highest percentage. Children between (7– 9) years with 32.5%. Children between (10 – 12) years with 31.25%.

We can conclude that children started using smartphones at an early age and this is due to the availability of smartphones in houses, which is a way to attract child's attention since childhood and because of the games and videos, as well as the ease to obtain it

Question9: How much time does your child spend on smartphone ?

Time	Number	Percentage
Less than an hour	25	31,25%
1H - 3H	47	58,75%
More than 3 hours	8	10,00%
Total	80	100,00%

Table (2.10): Time spent by children on smartphone.

From the above table and pie chart, it can be noticed that:

31.25% of children spend less than an hour on the smartphone.

58.57% of children spend between 1 hour to 3 hours.

10% of children spend more than 3 hours.

It can be noticed that the percentage of children who spend time between 1h to 3h is the highest. Because of the lack of parental control. Thus, parent may work or they are separated so, they do not have time. And the daily confrontation of the child with screens increase the risk.

One can conclude that parents have a major role in the education because children are more easily exposed to inappropriate content, which can negatively influence their behaviors.

Question10: When does your child use smartphone frequently

Periods	Number	Percentage
Morning	2	2,50%
Noon	4	5,00%
Evening	18	22,50%
At night	16	20,00%
When it is available	40	50,00%
Total	80	100,00%

Table (2.11): periods of using smartphone frequently.

From the above table and pie chart, it can be noticed that 50% of children use smartphone when it is available and it is the highest percentage. 22.5% of children use smartphone in the evening. 20% of children use smartphone at night. 5% of children use smartphone in the afternoon. 2.5% of children use smartphone in the morning.

We can conclude that the most of children use smartphone when it is available and they do not have a specific time to play or watch videos.

Question11: What are the things which attract your child;s attention ?

Choices	Number	Percentage
Video Games	44	55,00%
Taking Photos	9	11,25%
Social Media	5	6,25%
Youtube	12	15,00%
Stuying	10	12,50%
Total	80	100,00%

Table (2.12): Things which attract children's attention on smartphone.

From the above table and pie chart, it can be noticed that games are the most exciting things which attract children's attention with a percentage of 55%. Children use smartphone for studying with 12.5% Watching YouTube with 15%. Taking photos with 11.25%.

Social media (Facebook, instagram, twitter etc.) With 3.75%. Other application 2.5%.

So, it can be understood that video games attract the most of children for fun and entertainment and to create their own world and electronic games can help children's brain development and in the same time may have negatives.

Question12: Whom do children use smartphone with ?

Choices	Number	Percentage
Alone	40	50,00%
With parents	35	43,75%
With friends	5	6,25%
Total	80	100,00%

Table (2.13): Persons whom children use smartphone with.

From the above table and pie chart, it can be noticed that 50% of children use smartphones alone. 43.75% of children use smartphones with their parents. 6.25% of children use smartphone with their friends.

It can be understood that the most of children prefer to use smartphones alone to enjoy, have fun and choose their games without inconvenience. It can be noticed also, that 43.57% of children use smartphones with their parents because they are not allowed to use it alone because their parents know any electronic device has advantages and disadvantages.

The impact of using smartphone on child's behavior.**Question13: Do you take control over your children when using smartphone ?**

Choices	Number	Percentage
Always	36	45,00%
Sometimes	39	48,75%
Rarely	5	6,25%
Total	80	100,00%

Table (2.14): Parental controls.

From the above table and pie chart, it can be noticed that 45% of parents always take control over their children. 48.75% of parents sometimes take control over their children. 6.25% of parents rarely take control over their children.

It can be understood that, the most of parents sometimes take control over their children because they are occupied or they have a work or something to do outside home, or they don't know how to use smartphone. However, the parents who always take control over their children know the impact of smartphone on children because of its disadvantages and the nature of values that children acquire when using smartphones.

Question14: How does your child act while using smartphone ?

Choces	Number	Pecentage
Quiet/Calm	39	48,75%
Happy	37	46,25%
Noisy	4	5,00%
Total	80	100,00%

Table (2.15): Child's reaction while using the smartphone.

From the above table and pie chart, it can be noticed that 48.57% of children are quiet while using smartphone. 46.25% of children are happy while using smartphone. 5% of children are noisy while using smartphone.

So, it can be understood that the most of children are quiet and calm at the moment of using smartphones, because they concentrate in games or videos and they are happy because it is a pleasure for them to own a device like smartphone.

Question15: Did you notice any changes in your child's behavior ?

Choices	Number	Percentage
Yes	66	82,50%
No	14	17,50%
Total	80	100,00%

Table (2.16): Behavioral changes of the sample's children.

From the above table and pie chart, it can be understood that 82.5% of parents noticed behavioral changes on their children and 17.5% of parents did not.

So, the most of parents have noticed changes on their children's behaviors because smartphones become widespread among children which can cause positive and negative impact on their behavior.

Question16: Is the acquired behavior positive or negative ?

Choices	Number	Percentage
Positive	26	32,50%
Negative	54	67,50%
Total	80	100,00%

Table(2.17): The nature of acquired behavior.

From the above table and pie chart, it can be noticed that positive behavior with 32.5% and negative behavior with 67.5%.

So, it can be understood that the nature of behavior that the child acquires is mostly negative according to their parents. Because of the advantages and the disadvantages of the device and the way of using it

Question17: What are those positive behaviors ?

Choices	Number	Percentage
Interaction with The others	25	31,25%
Vitality and activity	23	28,75%
Quietness and tranquility	15	18,75%
Acquisition of many skills	17	21,25%
Total	80	100,00%

Table (2.18): The positive behaviors.

From the above table and pie chart it can be noticed that the interaction with the others 31.25%. The child becomes active with 28.75%. The child becomes calm with 18.75%. The child acquires many skills while using smartphone with 21.25%.

So, it can be understood that children interact with others, this is due to the benefits provided by the smartphone, it is viewed as a source of entertainment, games, music, movies, and books. Smartphone also aid in education, with easy access to information and helpful content. Therefore, children acquire many skills, develop their mind and become active. But all this if the device is used in the right way.

Question 18: what are those negative behaviors ?

Choices	Number	Percentage
Isolation and loneliness	25	31,25%
Lack of concentration	19	23,75%
Anxiety and stress	18	22,50%
Speech delays	3	3,75%
Hostility and ill-treatment	15	18,75%
Total	80	100,00%

Table (2.19): The negative behaviors.

From the above table and pie chart, it can be noticed that among the negative behaviors: Isolation and loneliness with 31.25%. Lack of concentration with 23.75%. Anxiety and stress with 22.5%. Speech delays with 3.75%. Hostility and ill-treatment with 18.75%. It can be understood that children acquire many negative behaviors while using smartphone. They want to be isolated to be free from parental control. Moreover, they become anxious and stressed and this can increase the hostility and ill-treatment. Furthermore, the overuse of smartphone may disturb the brain thus, the concentration may decrease.

Question19: do you remove the device from your child ?

Choices	Number	Percentage
Yes	74	92,50%
No	6	7,50%
Total	80	100,00%

Table (2.20): Removing the device from children.

From the above table and pie chart, it can be noticed that 92.5% of parents remove the device from their children and 7.5% of parents do not take it away from their children. It can be understood that the most of parents remove smartphone from children because the

excessive use may cause addiction and the child will stay away from reality and live in the virtual world. Thus, he will acquire many behaviors that may affect him negatively and may cause several problems such as: Disturbances of the brain's activity, insomnia, tumors, anxiety, stress, hostility and ill-treatment.

Question20: What will happen if the smartphone is taken away ?

Choices	Number	Percentage
Crying	17	21,25%
Shouting	8	10,00%
Noise	10	12,50%
Protest	27	33,75%
Stealing the smartphone	2	2,50%
Using another smartphone	9	11,25%
No reaction	7	8,75%
Total	80	100,00%

Table (2.21): Child's reaction when the smartphone is taken away.

From the above table and pie chart it can be noticed that among the child's reaction: Crying with 21.25%, shouting with 10%, noise with 12.5%, protest with 33.75%, stealing the smartphone with 2.5%, using another smartphone with 11.25% and no reaction with 8.75%.

It can be understood that reactions vary from child to child. Each one of them has his own way to express his feeling but the most of them protest when the smartphone is taken away.

Question 21: Do you feel fear for your child's smartphone use?

Choices	Number	Percentage
Yes	59	73,75%
No	21	26,25%
Total	80	100,00%

Table (2.22): The fear of parents over their children.

From the above table and pie chart, it can be noticed that 73.75% of parents feel fear for their children's smartphone use and 26.25% of parents are not afraid from smartphone's use. It can be understood that the most of parents fear for their children's smartphone use. Because it is double-edged sword, it has advantages and disadvantages and the excessive use of this device will negatively affect the child's behavior, health and psychological, educational and social aspect. And in the same time some parents are not afraid from smartphone's use because of its benefits and its positive impact on child's behavior moreover, there are some applications to install on the device to control children.

Question 22: What are the benefits that the smartphone added to your child ?

Choices	Number	Percentage
Improve knowledge	24	30,00%
Homework help	16	20,00%
Acquire new skills	15	18,75%
For playtime	19	23,75%
Development of intelligence	6	7,50%
Total	80	100,00%

Table (2.23): Smartphone's benefits

From the above table and pie chart, it can be noticed that smartphones have many benefits: Improve knowledge with 30%, homework help with 20%, acquisition of new skills with 18.75%, for playtime with 23.75% and development of intelligence with 7.5%. So, it can be understood that children acquire many benefits from smartphone such as: Improve knowledge, homework help, acquire new skills, for playtime and discover new cultures.

Question 23: What are the disadvantages of smartphone?

Choices	Number	Percentage
Medical issues	15	18,75%
Addiction	10	12,50%
Disturb brain activity	12	15,00%
Academic disruptions	15	18,75%
Sleep disruption	10	12,50%
Negative behaviors	18	22,50%
Total	80	100,00%

Table (2.24): Smartphone's disadvantages.

From the above table and pie chart, it can be noticed that smartphone also has disadvantages such as medical issues with 18.75%. Addiction with 12.5%. Disturb brain activity with 15%. Academic disruptions with 18.75%. Sleep disruption with 12.5% and acquisition of negative behaviors with 22.50%.

It can be understood that because of all these disadvantages parents feel fear for their children's smartphone use. Therefore one can conclude that smartphone is double_edged sword.

Question 24: does your child imitate what is seen on smartphone?

Choices	Number	Percentage
Always	24	30,00%
Sometimes	38	47,50%
Never	18	22,50%
Total	80	100,00%

Table (2.25): Imitation of what is seen on smartphone.

From the above table and pie chart it can be noticed that 30% of sample's children always imitate what is seen on smartphone. 47.5% of sample's children sometimes imitate what is seen on smartphone, and 22.5% of sample's children never imitate what is seen on smartphone.

So, one can understand that the most of children sometimes imitate what is seen on smartphone and it is advisable for them because their mind is not fully developed moreover they do not differentiate between what is positive and what is negative.

Discussion of the main results:

97.5% of children use smartphone because of its games, applications and videos that attract their attention and fulfill their desire.

36.25% of children started using smartphones at an early age and this is due to the availability of smartphones in houses, which is a way to attract child's attention since childhood and because of the games and videos, as well as the ease to obtain it.

58.75% of children spend time between 1h to 3h because of the lack of parental control. Thus, parent may work or they are separated so, they do not have time. And the daily confrontation of the child with screens increase the risk. So, parents have a major role in the education because children are more easily exposed to inappropriate content, which can negatively influence their behaviors.

50% of children use smartphone when it is available and they do not have a specific time to play or watch videos.

video games attract 55% of children for fun and entertainment and to create their own world and electronic games can help children's brain development and in the same time may have negatives.

50% of children prefer to use smartphones alone to enjoy, have fun and choose their games without inconvenience. It can be noticed also, that 43.57% of children use smartphones with their parents because they are not allowed to use it alone because their parents know any electronic device has advantages and disadvantages.

48.75% of parents sometimes take control over their children because they are occupied or they have a work or something to do outside home, or they don't know how to use smartphone. However, the parents who always take control over their children know the impact of smartphone on children because of its disadvantages and the nature of values that children acquire when using smartphones.

48.75% of children are quiet and calm at the moment of using smartphones, because they concentrate in games or videos and they are happy because it is a pleasure for them to own a device like smartphone.

82.5% of parents have noticed changes on their children's behaviors because smartphones become widespread among children which can cause positive and negative impact on their behavior.

67.5% of behaviors that the child acquires are mostly negative according to their parents. Because of the advantages and the disadvantages of the device and the way of using it.

31.25% of children interact with others, this is due to the benefits provided by the smartphone, it is viewed as a source of entertainment, games, music, movies, and books. Smartphone also aid in education, with easy access to information and helpful content. Therefore, children acquire many skills, develop their mind and become active. But all this if the device is used in the right way.

children acquire many negative behaviors while using smartphone. 31.25% of them want to be isolated to be free from parental control. Moreover, they become anxious and stressed and this can increase the hostility and ill-treatment. Furthermore, the overuse of smartphone may disturb the brain thus, the concentration may decrease.

92.5% of parents remove smartphone from children because the excessive use may cause

addiction and the child will stay away from reality and live in the virtual world. Thus, he will acquire many behaviors that may affect him negatively and may cause several problems such as: Disturbances of the brain's activity, insomnia, tumors, anxiety, stress, hostility and ill-treatment.

The reactions vary from child to child. Each one of them has his own way to express his feeling but the 33.75% of them protest when the smartphone is taken away.

73.75% of parents fear for their children's smartphone use. Because it is double-edged sword, it has advantages and disadvantages and the excessive use of this device will negatively affect the child's behavior, health and psychological, educational and social aspect. And in the same time some parents are not afraid from smartphone' use because of its benefits and its positive impact on child's behavior moreover, there are some applications to install on the device to control children.

30% of children acquire many benefits from smartphone such as: Improve knowledge, homework help, acquire new skills, for playtime and discover new cultures.

Because of the disadvantages parents feel fear for their children's smartphone use. Therefore one can conclude that smartphone is double edged sword.

47.5% of children sometimes imitate what is seen on smartphone and it is advisable for them because their mind is not fully developed moreover they do not differentiate between what is positive and what is negative

Conclusion:

Part two was developed to provide an overview of the research design and data analysis. It dealt with the objectives of this research work. Also, it was concerned with describing the research instruments and data analysis methods. It aims at analyzing the data collected and presented the results. In fact, the analysis of the parent's questionnaire revealed that the smartphone has an

impact on child's behavior in positive and negative way.so, everything is good if we use it in positive way or bad bad if we use it in a negative way. It can be understood from this chapter that parents have to control their children and limit their exposure to smartphone. this is difficult to

keep them away from the device but they can limit their time. Moreover they have to encourage the child to use it in educational field or study purpose because it can lead to drastic change in their lives. It can help them to enhance their skills. The use of smartphone in a constructive way can lead to healthier and efficient minds.

Suggestions and recommendations:

Kids of all ages these days are just fond of the technological advances and most of the free time they have, they just love to utilize it by using these devices. This is becoming a real problem for most of the parents and even teachers of how to keep the child away from these technological gadgets and devices.

Here are a few ways to make sure the child doesn't get too engrossed in this habit of using smartphones, Video Games, Tablets or watching videos all the time:

1. **Limiting the screen time:** maintain a strict "No more than allotted time"
2. **Setting alarms:** restrict the screen time for the kid by setting Alarms. Setting an alarm for 30 minutes.
3. **Keeping the devices out of reach:** If the child does not listen and want more screen time even after the allotted time
4. **Making the devices password protected** Whenever children have to use the smartphone they have to ask the permission.
5. **Talking it out with the child and reward him:** trying to sit down with the child and talking to him nicely and peacefully, let him understand the negative impacts of the device

6. **Indulge the kid with fun things to do:** Trying to introduce different types of activities for kids to keep their hands full and their routines busy. Trying to create activities where they also get to learn something and do something constructive. involving them into a lot of productive things which might include:
 - Playing with Constructive Toys where they have to use their cognitive ability.
 - Doing some activities (Do It Yourself). This is basically the concept of trying and making things yourself. For example some toy out of old toys.
 - Doing Art work (painting, coloring etc.) Praying and reading the Holy Quran
 - Reading short stories.
 - Encourage them to do household chores with you and make it fun for them. This will enable a sense of responsibility in them.
 - Playing musical instruments.
 - Cooking with mothers (try to make easy simple recipes like fruit salads or jelly)
7. **Encourage outdoor activities:** taking them to the play grounds. This way the child will get Fresh Air which will be very fruitful and will refresh their minds. It will also make them stronger as they will be doing some physical activities. Enrolling them in sports academies
8. **Spend quality time with the child:** The best gift given to a child. TIME Give them confidence that whenever they are having some problem, they can always come their parents.

There is nothing in this world that a parent wouldn't do for the betterment of their child. Every parent does their best to inculcate healthy habits into their children and keep them away from the ones that can have damageable results. If parents are successful in getting their child at a distance from the gadgets. they can consider it to be an achievement, a job well done!

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