# ASSOCIATION BETWEEN ELECTRONIC ENTERTAINMENT AND PRAGMATIC SKILL OF SCHOOL AGE CHILDREN

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Abstract-Children today are of digital age as they have an overwhelming choice regarding methods of play. Today, technology for a child is a source of learning and entertainment which can also have negative effect on health and well-being. Entertainment is a form of activity that holds the attention and interest of an audience or gives pleasure and delight. This study aims to determine the association between electronic entertainment and pragmatics of school age children having varied hours and content of electronic entertainment. It was a cross-sectional survey conducted in Rawalpindi and Islamabad with a sample size of 400 collected through purposive sampling. Typically developing school age children of both genders in the age group of 6-12 years, enrolled in private school of grade A and grade B category were included in this study. Children with special needs, learning disabilities and any psychological disorder were excluded. Data was collected using pragmatic checklist and the demographic data sheet with questions related to electronic entertainment. Written permission was sought from school administration for data collection. Data collected was analyzed using SPSS version 20. The results of this study showed a significant positive association ( $p \le 0.05$ ) of overall duration of electronic entertainment with the pragmatics (0.000) of school age children. There was a significant positive relationship ( $p \le 0.05$ ) of age of the school going children with TV watching (0.03) and mobile usage duration (0.03). However, there was no significant positive relationship ( $p \ge 0.05$ ) of age of school going children with overall duration of electronic entertainment (0.73) and pragmatics (0.76). It was concluded that school age children with an overall duration of more than 5 hours of various electronic entertainment usage sometimes show appropriate pragmatics instead of always.

Key Words: Electronic entertainment, Pragmatics, School-age.

# 1. INTRODUCTION

Is there an association of electronic entertainment duration and content with pragmatics of school age children? In past, the effect of entertainment media on the students' academic performance was investigated. 71% of the teachers believe it has negatively impacted the students' attention span. 58% of teachers believe that social media has negatively impacted their writing skills, due to their regular use of slang language and word abbreviations. The rest of the teachers believed it impacted both their face-to-face communication skills and their critical thinking skills.<sup>i</sup> A study was conducted on British children between the ages of 10-15 about their psychological well-being and their video game habits. The study found that children who played 1-3 hours of video games were

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approximately as social and satisfied as non-gamers, and children who played > 3 hours per day were less happy than non-gamers and prone to behavioral problems.<sup>ii</sup> Researchers have recommended no more than 2 hours of electronics a day for school-aged students. Despite these recommendations' children between the ages of 8 and 18 years have an average of 7 ½ hours of entertainment media per day.<sup>iii</sup> This study aims to determine the association between electronic entertainment and pragmatics of school age children having varied hours and content of electronic entertainment. This study was a cross-sectional survey which was prospective in nature. Pragmatics Checklist based on 51 easy statements with a rating scale of 4-point was used to collect data regarding the pragmatics skills of school age children. The responses of the children were documented on the checklist by their parents, teacher and speech therapist for inter-rater reliability. Demographic data sheet and a questionnaire which included items related to electronic entertainment name, material, nature and duration was used to collect data of school age children on content and duration of electronic entertainment. The parents of the school age children documented the information of school age children regarding the electronic entertainment.

# 2. ELECTRONIC ENTERTAINMENT

Entertainment is a form of activity that holds the attention and interest of an audience or gives pleasure and delight. It can be an idea or a task but is more likely to be one of the activities or events that have developed over thousands of years specifically for the purpose of keeping an audience's attention. As the term indicates, electronic entertainment is basically the use of electronic equipment and gadgets for the purpose of entertainment. Nowadays, the use of electronic media had been greatly increased. Almost every person is aware of this type of entertainment.

Children today are of Digital Age having an overwhelming choice regarding methods of play. Applications and the internet are an integral part of child's life both at school and at home. Today, technology for a child is a source of learning and entertainment which can also have a negative effect on health and well-being.

# 2.1 Types of Electronic Entertainment

Entertainment comes in various forms. From listening to a good music to playing a game on a gadget, entertainment carries and fulfills its purpose for all the age groups. The different types of entertainment that are commonly used all over the world includes; television, radio, videogames, web streaming and social media.

Electronic entertainment an electronic visual exhibit, informally a screen, is a display device for presentation of images, text edition, or video transmitted electronically, without producing permanent record. According to American Association of Pediatrics (AAP) news and general, electronic entertainments sources are TV, mobile, computer, smart phone, social media, video games, tablets, gadgets, Facebook, Twitter, WhatsApp and laptop. According to a report, there are differences in how different genders use their screen time. Boys spend more time playing console video games, while girls spend more time on music and social media. Mobile devices accounted for 41% of all screen time.<sup>iv</sup>

Researchers in a past study have discussed the new term, "Homo Zappiens", which refers to the learners of the new generation, and the new way they use to learn. This new way is known as "meta-cognitive skills," 2meaning they learn on their own without the need for instructions, it is also called "discover-based learning." They also add that, the younger generation shares an unclear bond with technology since their birth, leading them to multi-task. They note that 46% of the younger generations who access the internet use it to help them with their school assignments.<sup>v</sup>

# 2.2 Television

According to a past study, the use of television can be made to take a break and relief from the daily activities and duties. A person might feel less burdened mentally after watching television. The use of television can be distinguished as of social utility. It can also be utilized for the purpose of observation.<sup>vi</sup> TV contributes to the overall social environment by providing a consistent and predictable set of sounds and images, creating a crowded atmosphere immediately. Television has

structural characteristics as a behavioral regulator. Time and family activities such as mealtimes, sleep time, daily activities, homework hours, and a range of related activities and duties are intermittent. Modern mode is affected by conventional displays. External family contacts are organized similarly by television. Direct participation in community projects, entertainment activities or external entertainment are affected by the arrangement of TV shows.

### 2.3 Video Games

Video games are the games played via electronically manipulating images produced by a computer program on a monitor or any other display. Video games are one way the internet has changed a generation of young people to social networking and entertainment. Today, eager gamers want to pay monthly gaming fees as easily as their parents and eagerly wait in line for new video games.<sup>vii</sup> According to entertainment Software Association, it has been stated that although video games have been around for more than 30 years, until recently technology has turned video games into descriptive stories and event lines. The video game industry is now close to \$15 billion in annual revenue and about 3.38 billion hours of game play.

Video games provide a way to motivate students to spend hours learning at their own time. Most video games developed by game companies are the first to focus on fireworks and sports and are not subject to design education. The population of the game ranges between 10 and 34 years, and most of the population between 14 and 19 years. Games have a policy, economy, history, social structure and function.<sup>viii</sup> According to a researcher, teaching methods embodied in video games are likely to be self-referential, especially science.<sup>ix</sup>

Educational games often require the use of logic, memory, problem solving, critical thinking skills, visualization and discovery. In addition, the use of these gaming technologies requires users to interact with virtual objects using electronic tools and to develop understanding of complex systems that have been designed.<sup>x</sup> In general, these educational games seem to be effective in promoting motivation and increasing students' interest in the topic, but the extent to which they turn to more effective learning is less clear. The lack of experimental data, mainly due to the lack of systematic investigations of the cognitive impact of serious games, forced us to turn to early work to study the impact of interactive computer simulations on strong evidence.<sup>xi</sup> A study of male social identity, including 149 children between the ages of 14 and 15, said that "good at computer/video games" is second only to "fun" and is an ideal feature for group members.<sup>xii</sup>

#### Portable Game

People live a very busy life today. They keep moving, but they need to fix daily games to match them. This led to the rise of the portable gaming device market, which was the reincarnation of the Nintendo Game Boy era. Today, you have advanced equipment such as the Sony PlayStation Portable and the Nintendo DS series, taking advantage of its unique features to provide "anytime, anywhere gaming."

With the launch of the Apple iPhone and many Android smartphones, mobile games have also become new innovations for non-gamers. Touch screens and gyroscopes introduce a whole new way to the game, and the success of Angry Birds is just the tip of the iceberg. Compared to regular games, the games here are very cheap, and more and more developers are joining the game.

#### 2.4 Electronic Devices

Electronic devices are those materials that can be utilized in order to get approach to the electronic entertainment or electronic media. Computers, laptops and tablets are the necessities nowadays. It is time to assess the impact of home computers on the development of children and adolescents. In the past few years, increasing numbers of American families have added video games, home computers and the Internet to other technologies - telephone, radio, television and stereo systems and the time children spend on these objects have also been increased.

When a national sample of children and adolescents was asked to choose the media to enter the desert island, children between the ages of 8 and 18 choose a computer that has access to the Internet rather than any other media.<sup>xiii</sup>

In studying the impact of computer use, it is mainly studied that there are two popular computer applications, including games and the Internet. Games that are played on the computer are like

games that are played on other platforms, we use the term "computer game" to include any platform how to refer to all kinds of interactive games. Even the distinction between games and the Internet becomes unclear because online games can be played online. With the convergence of the media soon, the impact of computer technology on children will become more complex and challenging.<sup>xiv</sup>

# 2.5 Mobile Phones

Mobile phones are a portable wireless device that allows users to make and receive calls and send text messages. Mobile devices are very compelling because they are so quickly and seamlessly integrated into the structure of everyday life. This phenomenon can be attributed to a specific practice lineage: the phone has been circulating for generations and computers to shorten the time. However, mobile phones today have many additional features, such as web browsers, games, cameras, video players, and even navigation systems. The mobile phone can also be referred to as a cellular phone or simply a cell phone.

The arrival and rapid growth of mobile phones (mobile) is considered one of the most important developments in the historical context in the past two decades.<sup>xv</sup> Ten years ago, smartphones or tablets with wireless technology were completely different tools for PDAs or laptops. These mobile devices have changed the way health professionals work around the world, and their potential to help students learn in the health profession is still being explored.<sup>xvi</sup> Researchers believe that global mobile users are now more than fixed users, and there may be TV users.<sup>xvii</sup>

A study showed that half of people between the ages of 7 and 16 were mobile phone owners. Although the reason for the growth of mobile phone ownership is sometimes the same so-called property interest, the two sets of factors can be distinguished. Technological developments that produce more complex and detailed functions on mobile phones, such as dial-up, voice mail, gaming facilities, and technologies with 3G telephony, MMS, and Internet access, can sometimes be the reason for purchase.

In addition, the range of mobile phone features and payment methods offers more choices; competition between hands manufacturers and service providers may retain these options. Thus, comfort, mobility and selectivity are terms that characterize many of the factors in the region of interest. The flexible use of mobile phones can be effectively described as a practical benefit, but the freedom it provides also has an important psychological component. This may be true for any owner, but it may have special meaning for those who may be considered or considered. They themselves are dependent on others, or are vulnerable, such as children, adolescents, patients, persons with disabilities and the elderly.

Parents can also see that the phone provides a free element that allows them to take the event away from the child or enjoy them, not knowing that the touch on the keyboard is separating them otherwise they are not willing to do so. Therefore, parents can give their children more freedom without physical control and still have conscience. From this perspective, mobile phones are monitoring technologies.<sup>xviii</sup>

# 2.6 Virtual Reality

The term virtual reality means near-reality. Virtual reality is an interactive experience that is produced by the computer and occurs in a simulated environment. It mainly contains audio and visual notes but may also allow for other kinds of sensory comments, such as touch. This immersive environment can be like the real world or can be fascinating. It is used to describe a three-dimensional computer-generated environment that can be explored and interacted by people. People become part of this virtual world or are immersed in this environment, while being able to manipulate objects or perform a series of operations.

There are a variety of systems for this purpose, such as headphones, omni-directional walkers and special gloves. These are used to stimulate our senses together to create a reality illusion. Researchers have argued that immersive virtual environment technology (IVET) can change the study of social behavior by carefully controlling and simulating different aspects of social interaction. They believe that IVET can be achieved. Researchers have identified the key aspects of successful and unsuccessful social interactions because technology provides experimental control in

an environment that is environmentally repeatable and reproducible. The basis of these changing claims is the basic assumption of originality. The experience of virtual reality technology is real and realistic, that people express and interact with the virtual world in a way like the real world, thus achieving generalization from one to the other.<sup>xix</sup>

Researchers have also provided a great summary of the future features and challenges that emerge in multi-level experiences when using virtual reality in social interaction research.

VR provides the possibility to change our thinking about social interaction by allowing us to examine specific aspects of social interaction and the exchange of information between interacting partners.

# 2.7 Impact of Electronic Entertainment

Researchers believe that technology offers a platform for innovation and allows its users to express their opinions about how they feel towards the information being published. They add that, social media is also a platform that allows students to interact with one another, with their teachers and communities that share their same education. It was also stated that these types of interaction are essential part of how humans learn. <sup>xx</sup>

Another researcher has discussed in her research a theory called 'Signaling Theory', which refers to how individuals on social network sites present themselves, and develop their identities and build trust with others. She also adds that, by having many friends on the different platforms, this causes the individual to lose the trust of their friends because they start adding people they do not know, to show others how popular they are.<sup>xxi</sup>

According to a research paper there are a couple of benefits to social media use. A researcher pointed out that children of ages 6 to 12 are averaging 7 ½ hours of entertainment media per day.<sup>xxii</sup> Researchers have also examined the relationship between two groups. One group have presence of mobile devices and other technology whereas the other group have absence of mobile communication technologies. People who had conversations in the absence of mobile devices reported higher levels of empathetic concern and communication level, while those conversing in the presence of a mobile device reported lower levels of empathy.<sup>xxii</sup>

In new technologies, the use of social media has been widely used among adolescents. These include media, email, chat rooms, instant messaging, text messaging, social networking sites (like Facebook), video sharing sites (like YouTube) and many other emerging tools. Moreover, while television viewing and video games should be primarily personalized, at least some of these activities can also be social interactions. There is growing interest in studying the role of e-social media in adolescent development and the ongoing debate about the impact of the media on social participation. Some studies have found that the use of the Internet may be isolated and socially isolated, while others believe that the use of social media can enhance the social relationship between adults and adolescents.

# 3. PRAGMATICS

Pragmatics is the social use of language and pragmatic language skills are very important to allow clear communication of feelings, thoughts and ideas. Pragmatics includes appropriate eye contact, taking turns, initiating conversation, requesting and responding, topic relevance and maintenance, asking and answering questions. According to Pragmatic profile, the pragmatic markers school age children are communicative function, response to communication, interaction and conversation and contextual variation.

Pragmatics can be defined as a study of how context affects meaning, such as how to interpret sentences in some contexts or the interpretation of linguistic meaning in context. The linguistic context is the utterance before the sentence is interpreted, and the contextual context is the knowledge about the world.

Cognitive pragmatism means that cognitive understanding focuses on the cognitive aspects of meaning interpretation in context. This involves language production and language understanding.<sup>xxiv</sup> However, the current concept of cognitive pragmatism is more specific than land on the one hand because it focuses on "building meaning" rather than "communication" itself, and

on the other hand, more general. It is not about the "mental state" but about the "cognitive aspects". The current realm of cognitive pragmatism is also more restrictive than that defined by pragmatics and cognition. Pragmatics and cognition aim to explore the symbolic systems used by humans, animals, and machines in mental activity.

#### 3.1 Pragmatic Language Characteristics

The practical aspect of language refers to the practical application of language in social interaction, including language expression, logical language and non-verbal behavior. According to researchers, verbal expressions include theme launch, thread maintenance, rotation, contextual use, interruptions, and conversation volume. Secondary language includes intensity, clarity, tone and rhythm. Nonverbal behaviors include eye contact, facial expressions, near the body, and gestures.<sup>xxv</sup>

Pragmatic barriers are not limited to speaking. The use of gestures is also fragile due to the understanding and production of facial expressions. The broader definition of pragmatism encompasses social, emotional and communicative behaviors that involve social interaction. Pragmatism can provide a complementary window to the social and cognitive aspects. Note that only the function of nonverbal behavior and make a reasonable contribution to social communication and intervention strategies for children with Attention Deficit Disorders and speech and language problems.<sup>xxvi</sup>

Pragmatic language difficulties are specific to the use and understanding of language in context, not the semantic or structural aspects of language. The term language barrier is preferred "Symmetrical and pragmatic disorders" are used to describe groups of children with language barriers because some children have no evidence of mechanical problems. The results suggest that children who fail to use nonverbal responses also have a relatively high level of inappropriate, inappropriate responses to rules or vocabulary.<sup>xxvii</sup>

#### 3.2 Pragmatic Skills of School-age

School age brings a new environment, audience, role, and experience, which further improves language skills. Conversation skills, while improving students 'ability to recognize others' abilities, knowledge and ability to convey subjects in precise ways. Children can achieve their actual goals, such as advocating, denying, sharing information, interacting with others, and learning models that help them achieve these goals. When these children cross the school system, their cognitive abilities have evolved so that they can describe and compare them in terms of variance, interpretation, analysis, assumption, development and evaluation. They also use a variety of communicative abilities to distinguish them from younger children. The school year is characterized by growth in terms of language, although the development of pragmatism and semantics seems to be more common.<sup>xxviii</sup>

The conversation of young children is usually loosely organized, involving non-related topics and abrupt shifts in the subject are often irrelevant. Relevant principles, participants in the talks should make their contributions directly related to their previous statements or related to general topics. On the other hand, older children seem to think that the speaker corresponds to the first maximum number compared to the younger children, which means they will only make their information useful according to the current exchange purpose. The logo that the researchers put together states what participants should do to talk. One of the most effective, most reasonable, and most cooperative methods. Children must speak with sincerity, importance and clarity with adequate information. Therefore, older children are better at using these principles than younger children.

In every academic task that requires collaborative group learning and non-academic social activities, proper practice communication skills are critical. Children who can develop these skills are more successful social interaction with their peers, families and teachers. Children who invite others to play and spin in dynamic interactions are considered attractive friends. Successful callers can exchange information about themselves, their feelings and opinions, and ask questions for information of other people. Therefore, these children can make and maintain effective friendships.<sup>xxix</sup>

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# 3.3 Assessment of Pragmatic Skills

Assessing practice or conversational skills can be challenging because conversations are dynamic rather than static. Researchers have suggested to must consider whether a person has knowledge of situations such as managing a session, or whether it is a performance issue.<sup>xxx</sup> Selective social process skills are often assessed as an assessment of greater social skills or language/communication skills. Pragmatic skills depend to a large extent on the skills of understanding each person's basic language and skills.<sup>xxxi</sup> Language skills involve the ability to think/talk about language use in language. When assessing pragmatism, it is also important to consider the order of the individual in terms of semantics, grammar, and discretion/expression skills.

# 3.4 Effect of Electronic Entertainment on Pragmatics

The researchers documented many children's contributions in the areas of social emotions, cognition and physical development, including mood regulation, peer-to-family relationships, attention, problem solving, creativity, fine motor skills, and overall physical health. Increase supervision and supervision of free games for children, move toys in the home, replace games and stop classes in a more organized form of activity, with a focus on more academic goals.

These changes may hinder the basic functions of freer, less organized games to support children's emotional, social, cognitive and linguistic development. Electronic toys may have the ability to restore some of the key factors in children's games that have been affected by increased supervision and control by children's leisure and imagination. Computers and video games provide unique opportunities for children to run rules in a virtual environment

In addition to allowing children to negotiate rules and social roles, video games can also promote children's self-regulatory development. Computer adventures and video games expose children to dangers and attendant fears, anxieties, mastery, failure, power and a sense of helplessness, all in a world that causes fear but ultimately security. Such kind of games, this is the aspect of security, from the fact that the danger is just pretending or believing, which allows children to self-regulate the fear and anxiety associated with this danger.

Many computer applications, especially computer games, have design features that change the balance of information processing required, from verbal to visual. Very famous sports games that are spatial, creative and dynamic and can be played in different places. Children can provide computer-literate training wheels by developing the skills they develop in this game and can help them prepare for science and technology. More and more activities rely on manipulating images on the screen. While "cognitive skills" includes a wide range of skills, most studies focus on visual intelligence components, such as spatial skills and performance. These skills are essential for most video and computer games, as well as for many computer applications.

Despite advances in interactive technology and current computer gaming capabilities, the fundamental nature of computer games has not changed. Current generation games continue to include features that emphasize spatial and dynamic images, symbol representations and the need to divide attention in different locations on the screen. Thus, the nature of the effects of computer games resulting from the structural characteristics of the media may remain the same - although the effects of visual intelligence may change as graphics become more complex.

Pragmatic skills can be enhanced through electronic entertainment. Spatial representation is seen as an area of skill more than one ability, including mental rotation, spatial perception, and the ability to manipulate two-dimensional or three-dimensional images of two-dimensional space. The technologies that use 2D visualization of virtual space are at the core of various computer applications, including programming, computer games, and video games. Because these skills can be important to be able to "read" and utilize the information on a computer screen, repeated exercises on these applications (especially computers and video games) can enhance specific spatial skills.

In general, studies have shown that in 10-1 / 2 to 11-1 / 2 years of research, the spatial skills associated with playing video games show that computer game practices reliably improve spatial performance. The inference of the space path (called guessing) compared to the practice in the

game. Not every video or game computer helps develop any or all the skills of space. If the game uses this skill, the computer games will only promote specific spatial skills. In principle, skills can be improved only through games when these skills reach a certain level of maturity. However, to our knowledge, only one study compared the cognitive impact of games on children of different ages, and found that the impact of fifth, seventh and ninth graders did not change. Since playing two computer games, all three age groups have shown myself better rotation, spatial skill.

Another skill is embodied in computer games, namely icons or representative representations, or the ability to read images, such as images and graphics. In fact, in many computer games, images are more important than words. In a multicultural study conducted in past, it was found that computer games have transformed performance patterns from verbal to icons. In this study, students can play games on a computer or on board. Those who play games on the computer use more charts in their animated computer simulation descriptions, while those who play the game display a more transparent description on the panel. Symbolic and spatial representations are very important for scientific and technological thinking; these representational models are used in a variety of computer applications.

Another skill in computer games and video games is divided into visual attention, skill and tracking many different things at the same time. The influence of video game experience on college students' visual attention distraction strategy has been explored. Distributed attention is divided by measuring the response time of participants to two events with different possibilities at two locations on the computer screen. As computer professionals, participants have faster response times than beginners. Traffic games also improve the strategy for tracking events across multiple locations. In general, the study shows that skilled video players are more able to develop attention skills than unskilled players. Although the study is aimed at college students, playing computer games and video games can have similar effects on children and help develop skills that require specialized knowledge (e.g., instrument flight, military activities, air traffic control). However, there is no research on the actual recording of video game operations, conscious skills, and academic achievement or success in a profession. In addition, most research on the effect of computer games on cognitive skills only measures the effect of playing the game immediately after practice and does not solve the cumulative effect problem of the interactive game on cognition.<sup>xxxii</sup>

#### 4. MATERIAL AND METHODOLOGY

This study was a cross-sectional survey. This study was carried out in Rawalpindi and Islamabad. The duration of the current study was 6 months. Purposive sampling technique was used in this study. Sample size comprised of 400 children enrolled in private schools of category A and category B were targeted in this study

### Sample Selection:

#### Inclusion Criteria:

The participants included in this study were comprised of the following characteristics:

- 1. School age children of both gender
- 2. 6-12years of age
- 3. Enrolled in Private schools
- 4. Typically developing children

### **Exclusion Criteria:**

The exclusion criteria were comprised upon:

- 1. Children with special needs, learning disability and psychological disorder
- 2. Single parent and non-availability of one of the parents due to long working hours or evening jobs.

#### Data Collection Tool:

- i. Demographic datasheet with Questionnaire on electronic entertainment (content & duration)
- ii. Pragmatic Skills Checklist

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#### Data Collection Procedure and Analysis:

In this study, the pragmatic skills of 6-12 years old school aged children were assessed and documented on the checklist by the class teacher, parents and the speech therapist for inter-rater reliability. Class teachers and parents were directly involved in the study as they have a close and keen observation on their students and children respectively. The information on electronic entertainment was collected from both parents; mother and father. Written permission was sought from school administration for data collection prior to the start of research. Data collected was analyzed using statistical package for social sciences (SPSS) version 20.

# 5. **RESULTS**

Data collected was analyzed using statistical package for social sciences (SPSS) version 20. Results computed comprise of descriptive analysis and the inferential analysis of the variables. Descriptive statistics constituted of frequencies, percentages and cross-tabulations of the study variables. The inferential statistics included paired sample t-test with the level of significance (p-value) set at 0.05 level.

Results in table 1 showed the frequency and percentage of age of school going children who used a variety of electronic entertainment. The table indicated that out of 400 participants, 18 (4.5%) were 6 years old, 83 (20.8%) were 7 years old, 73 (18.3%) were 8 years old, 56 (14%) were 9 years old, 57 (14.3%) were 10 years of age, 88 (22%) were 11 years old and 25 (6.3%) were 25 years of age. This revealed that majority (22%) of participants were 11 years old and fewer (4.5%) were of 6 years old. Table number 2 showed that out of 400 participants, 222 (55.5%) were male and 178 (44.5%) were female. This indicated that majority (55.5%) of the school aged children who participated in this study were male.

Table 3 indicated the frequency and percentage of grade of the children. Results of table 3 showed that 17 (4.3%) participants were in grade 1, 92 (23%) were in grade 2, 58 (14.5%) were in grade 3, 81 (20.3%) were in grade 4, 124 (31%) were in grade 5, and 28 (7%) were in grade 6. This showed that the majority (31%) of the participants were in grade 5 and fewer (4.3%) were in grade 1. Results in table 4 showed that out of 400 participants, 202 (50.5%) participants were enrolled in A Grade School and 198 (49.5%) were in B Grade School.

Results in table 5 showed the frequency and percentage of qualification of the mothers of the participants of this study. Out of 400 mothers of the participants, 14 (3.5%) were Below Matric, 53 (13.3%) were Matric pass, 88 (22%) had cleared their Higher Secondary School (Intermediate), 101 (25.3%) had done their Bachelors/Graduation, 90 (22.5%) were Masters, and 54 (13.5%) were illiterate. The results showed that majority (25.3%) of the mothers of the school aged children of this study had done their Graduation and fewer (3.5%) mothers were Below Matric, whereas 13.5% mothers were illiterate. However, the results in table 6 also indicated that majority (31.5%) of the fathers of the participants of this study had the qualification of Bachelors/Graduation, fewer (4%) fathers were Below Matric and 4.8% were illiterate.

Table number 7 indicated the results of the profession of the mothers of the participants. Results showed that out of 400 mothers of the participants, 362 (90.5%) mothers were House Wives, 27 (6.8%) were Teachers, 5 (1.3%) were Doctors, 4 (1%) were nurses and only 2 (0.5%) were Engineers. This showed that the majority (90.5%) of the mothers of school aged children who participated in this study were House wives. However, the results of table 8 revealed that the majority (135;33.8%) of the fathers of the participants were doing Business.

Results of table number 9 showed the frequency and percentage of the Names of Electronic Entertainment used by the participants. Out of 400 school age children, 150 (37.5%) participants watched TV, 66 (16.5%) used Tab, 57 (14.3%) used Mobile, 43 (10.8%) used Computer, 18 (4.5%) used Laptop, 17 (4.3%) children used Virtual Reality, 15 (3.8%) participants used PVP, 3 (0.8%) participants each used iPad and xBox, and 28 (7%) used multiple electronic entertainment.

However, the results in table 10 indicated the frequency and percentage of TV Entertainment Material watched by the participants of the current study. Out of 400 participants, 13 (3.3%) didn't mention any TV Entertainment Material, 22 (5.5%) reported Drama watching, 179 (44.8%) watched

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Cartoons, 11 (2.8%) watched News, 53 (13.3%) watched Sports, 37 (9.3%) watched National Geographic, 77 (19.3%) watched Movies, and 8 (2%) watched Songs. The results revealed that the majority (44.8%) of the school age children watched Cartoons on TV. However, table number 11 revealed the results of the Nature of TV Material watched by the participants. The results indicated that majority (195; 48.8%) of the children watched Educational Material on TV, 90 (22.5%) participants watch Aggressive material on TV and 102 (25.5%) of the children watched entertainment material on TV. Moreover, the results of the data reported by the parents of the participants of this study showed in table 12 indicated that majority (387; 96.8%) of the participants Actively watch TV whereas that of table 13 revealed that 287 (71.8%) of the participants did not Passively watch TV.

Table number 14 showed that 140 (35%) of the participants watched TV for 5-59 minutes, 194 (48.5%) watched TV for 1-1:59 hours, 50 (12.5%) watched 2-2:59 hours, and only 3 (0.8%) participants watched TV for 3-3:59 hours.

Results in table 15 showed the frequency and percentage of the Video Games Gadgets used by the participants. The results indicated that 31 (7.8%) participants used Play Station, 25 (6.3%) used x-Box, 60 (15%) used PVP, 102 (25.5%) participants played Games on Tablet and only 22 (5.5%) played on various other video games gadgets. The majority (102; 25.5%) of the school age children played games on tablet. However, the result in table 16 showed the duration of video games gadgets used. 129 (32.3%) participants used video games gadgets for 5-30 minutes, 98 (24.3%) used video games gadgets for 1-1:30 hours and only 13 (3.3%) used video games gadgets for 2-2:30 hours.

Table number 17 showed the frequency and percentage of the types of computers used by the participants. Majority (149;37.3%) of the participants used laptops and 52 (13%) school age children used Desktop computers. As per the results in table 18, 113 (28.3%) of the children use computer for Educational purpose and 88 (22%) of the participants use computer for Entertainment. The duration of the computer usage mentioned in table 19 revealed that 100 (25%) participants use computer for 5-30 minutes, 94 (23.5%) use computer for 1-1:30 hours, 4 (1%) participants use computer for 2-2:30 hours, 2 participants use computer for 3-3:30 hours and only 1 participant used computer for 1:31-1:59 hours. The results indicated that most of the participants use computer for 5-30 minutes and a smaller number of school age children use computer for 3-3:30 hours. Similarly, the results in table 20 indicated that majority (103;25.8%) of the participants use tablet for 5-30 minutes, 86 (21.5%) of the children used tablet for 1-1:30 hours, a few of the participants (7;1.8%) used tablet for 2-2:30 hours and only 3 participants used tablet for 31-59 minutes.

Table number 21 showed the frequency and percentage of mobile phone usage of school age children. Results indicated that majority of the participants (67;16.8%) used mobile phone for calls, 61 (15.3%) used for games, 19 (4.8%) participants used mobile phone for cartoon watching, 12 (3%) used for social networking, 44 (11%) used mobile phone for educational and only 2 (0.5%) participants used mobile phone for movies. Results in table 22 showed that majority of the participants (116;29%) used mobile phone for 5-30 minutes, 71 (17.8%) children used mobile phone for 1-1:30 hours, 14 (3.5%) participants used mobile for 2-2:30 hours, 2 participants used mobile phone for 31-59 minutes and only 1 participant used mobile phone for 3-3:30 hours.

Results in table 23 showed the frequency and percentage of virtual reality usage. 12 (3%) participants used virtual reality for games, 39 (9.8%) used it for movies, and 51 (12.8%) used virtual reality for cartoons watching. Table number 24 showed the duration of virtual reality usage. Majority of the participants (55; 13.8%) used virtual reality for 5-30 minutes, 37 (9.3%) used it for 1-1:30 hours and only 5 (1.3%) used virtual reality for each 2-2:30 hours and 3-3:30 hours respectively.

Table number 25 showed the frequency and percentage of overall usage duration of electronic entertainment. The results revealed that the overall usage of electronic entertainment of most of the participants (142;35.5%) was of 2-2:59 hours, 106 (26.5%) of the participants overall used electronic entertainment for 3-3:59 hours, overall usage of 33 (8.3%) was 4-4:59 hours, overall usage of 15 (3.8%) participants was 5-5:59 hours and 11 (2.8%) participants had overall electronic

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entertainment duration of 6-6:59 hours and only 1 participant had the overall usage of electronic entertainment of 7-7:59 hours.

The results of table 26 revealed the frequency and percentage of the pragmatics rating of school age children by their parents, teacher and speech therapist. Majority of the participants who used electronic entertainment for various duration usually showed appropriate pragmatics rated by their parents (209; 52.3%), teacher (201; 50.3%) and speech therapist (198; 49.5%). However, few of the participants never showed appropriate pragmatics which was rated by teacher (5; 1.3%) and speech therapist (4;1%).

Similar results of the cross tabulations between different ages of school going children and electronic entertainment durations of TV watching, Video games gadgets, computer usage, laptop usage, mobile usage, virtual reality usage, overall usage of electronic entertainment and pragmatics by parents, teacher and speech therapist are shown below from table number 27 to table number 36.

Table number 37 shows the association of age of participants with TV watching duration, video games gadgets duration, computer usage duration, tab usage duration, mobile phone usage duration, virtual reality usage duration, overall duration of electronic entertainment and the pragmatics of school aged children. The results revealed that there was a significant positive relationship of age of the school going children with TV watching duration (0.03) and mobile usage duration (0.03). However, there was no significant positive relationship ( $p \ge 0.05$ ) of age of school going children with overall duration of electronic entertainment (0.73) and pragmatics (0.75). Furthermore, there was a positive relationship of age of school going children with TV watching duration, video games gadgets duration, computer usage duration, mobile phone usage duration, virtual reality duration, overall duration of electronic entertainment and pragmatics. However, there was a negative relationship of age of children with tablet usage duration.

Results in table 38 revealed a significant positive association ( $p \le 0.05$ ) of overall duration of electronic entertainment of school age children with their pragmatics (0.000).

#### 6. DISCUSSION

This study was conducted to determine the association between electronic entertainment and pragmatic skills of school age children having varied hours and content of electronic entertainment. According to the results of this study, out of 400 participants, 18 (4.5%) were 6 years old, 83 (20.8%) were 7 years old, 73 (18.3%) were 8 years old, 56 (14%) were 9 years old, 57 (14.3%) were 10 years of age, 88 (22%) were 11 years old and 25 (6.3%) were 25 years of age. This revealed that majority (22%) of participants were 11 years old and fewer (4.5%) were of 6 years old. The results also showed that majority (55.5%) of the school aged children who participated in this study were male.

A survey conducted on 2,000 children in Korea which consisted of 991 males and 1,009 females with an average age of 12 years old to investigate the social impact of children with smartphone. Results showed that children's lack of social networks inhibit comfortable social interactions and feelings of support in their environment, which can heighten their desire to escape to smartphones. These children do not take advantage of the media to enrich their social lives and increase their level of social engagement.<sup>xxxiii</sup>

A survey study was conducted on students of all ages, from 5<sup>th</sup> graders to undergraduate students. They found that the motivation for the game varies according to age or stage of development. Competition stimulates 8<sup>th</sup> and 11<sup>th</sup> grade students more than 5<sup>th</sup> grade students.<sup>xxxiv</sup> For boys, video games may be a way to compete for social status or mastering the appropriate developmental role played by popular games.<sup>xxxv</sup>

The results of this study revealed that the majority (37.3%) of the school age children watched Cartoons on TV. The nature of the material watched on TV by majority (149;37.3%) of the children was Educational and 83 (20.8%) participants watch Aggressive material on TV.

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Results of this current study indicated that majority (149; 37.3%) of the participants used laptops and 52 (13%) school age children used Desktop computers. 113 (28.3%) of the children use computer for Educational purpose and 88 (22%) of the participants use computer for Entertainment.

According to reports, 60% of children between the ages of 8 and 17 have home computers, and 61% of families with computers can use Internet services; in other words, 36.6% of all households have Internet services for children.<sup>xxxvi</sup> Although they are increasingly concerned about the impact of the Internet on their children and expressing their disappointment with children by using computers to play games and browsing the Internet to download songs and famous pictures of rock stars, they often think of wasting time.<sup>xxxvii</sup> Watching TV on your favorite computer, even watching a child without a computer at a disadvantage.<sup>xxxviii</sup>, xxxix

Results of the current study indicated that majority of the participants (63;15.8%) used mobile phone for calls, 52 (13%) used for games, 19 (4.8%) participants used mobile phone for cartoon watching, 12 (3%) used for social networking and only 2 participants used mobile phone for movies.

The results of this study revealed that the overall usage of electronic entertainment of most of the participants (142;35.5%) was of 2-2:59 hours, 106 (26.5%) of the participants overall used electronic entertainment for 3-3:59 hours, overall usage of 33 (8.3%) was 4-4:59 hours, overall usage of 15 (3.8%) participants was 6-6:59 hours and the overall usage of electronic entertainment of only 1 participant was of 7-7:59 hours.

The results of this study revealed that there was a significant positive relationship of age of the school going children with TV watching duration (0.03) and mobile usage duration (0.03).

Furthermore, the results of this study revealed that there was a positive relationship of age of school going children with TV watching duration, video games gadgets duration, computer usage duration, mobile phone usage duration, virtual reality duration, overall duration of electronic entertainment and pragmatics. However, there was a negative relationship of age of children with tablet usage duration.

Literature revealed that the video games with violent content have become very famous among children of different ages which has caused a great concern in parents and teachers. The results of this past study summed up the empirical data on the effect of violent video games which indicates that there has been a small effect of violent games on aggress as compared to television violence. The effect was found to be positively associated with type of games and negatively associated with the time spent plying those violent games.<sup>xl</sup>

Moreover, the result of the current study revealed that there was no significant positive relationship ( $p \ge 0.05$ ) of age with overall duration of electronic entertainment (0.73) and pragmatics (0.76). However, the results of this study also showed a significant positive association ( $p \le 0.05$ ) of overall duration of electronic entertainment of school age children with their pragmatics (0.000).

There is also growing research showing that excessive use of television and video games can have harmful effects on children and adolescents. The time spent watching TV and playing video games has a negative impact on school performance. These results are largely consistent with previous research on the relationship between academic performance and watching TV time. Other studies have found that the time and cost of using screen-based media is negatively correlated with the time spent interacting with others.<sup>xli</sup>

# 7. CONCLUSION

It was concluded that the school age children with an overall duration of more than 5 hours of various electronic entertainment usage sometimes show appropriate pragmatics instead of usually and always.

# Limitation

- Data extraction was a major hurdle, as most of the institutes refused to give data even after signing the consent forms and failed to document the information required.
- Schools were hesitant to involve parents.

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### Recommendation

- It is further needed to explore the association of electronic entertainment (content, duration) and pragmatic skills of school age children from different *socioeconomic status*.
- Data to be collected from different major cities for generalizability of the results.
- Inclusion of children of single/separated parents in the study.
- Comparative analysis of the results of children with both parents versus children with single/separated parents.

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