

# The Effect of Communication Technology Development on the Intelligence of Children through Educational Value System Management

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## Abstract

The development of IT in the digital era 4.0 currently provides a considerable and different influence on each user, including children. In general, the problems in the world of education include the quality and quantity of education related to quality and equality in obtaining access to education without any gaps and exceptions. The solution that can be developed is the optimization of the role of Information and Communication Technology (ICT) in the world of education. One of the roles of ICT in education is realized by the development of online learning (e-learning) or the direct use of ICTs for children. Many changes - changes in different new values can have a positive impact on children's growth, especially on intellectual intelligence, intelligence emotional, spiritual, and social intelligence. ICTs have a good influence on children's intellectual, emotional, spiritual and social intelligence; IT brings a bad influence on children's intellectual intelligence; IT has a pretty good influence on children's emotional intelligence; IT has a pretty good influence on children's spiritual intelligence, IT has a good influence on children's social intelligence. Importance of Parents has a role to be able to know the changes that occur during child development.

## Keywords

Management of Value Systems; Education ICT; Children's Intelligence



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## INTRODUCTION

There are several studies that discuss the positive and negative effects of IT development. Susena et al. (2013) and Gilang et al. (2017) explain that the development of technology in the form of the internet is having a beneficial impact to help the teaching and learning process and affect the level of children's intellectual intelligence (Nikmah, 2013; D'Amico,

2018). Explain that the development of IT in the form of mobile phones has both positive and negative effects depending on the user. Further negative impacts can be obtained if students use mobile phones for unnecessary purposes and use that does not know the time limit or excessive (Nikmah, 2013; Machado & Tao, 2007). Therefore to reduce the negative impact, the child must be able to minimize the time

to use and use mobile phones for learning purposes and other positive things (Nikmah, 2013; Setyowati, 2005).

The success in living their lives is not only supported by intellectual intelligence (Intellectual Quotient). Many life problems cannot be solved using a rational approach. The meaning is that other intelligence is needed that is related to attitudes and emotions, namely emotional intelligence developing human knowledge that can provide changes to the patterns of human life. IT provides several conveniences that can be used to solve several human problems in terms of work, communication, school assignments, and so on to encourage people to use IT (Susena et al., 2013). With various kinds of conveniences offered, it does not mean that information technology has no shortcomings. The development of IT can be two blades for human development, can have a positive impact on daily life or can be a negative impact if it is not suitable for portions (Nikmah, 2013).

This study discusses the influence of the development of information technology on intellectual intelligence emotional intelligence of spiritual and social intelligence in children. To find out how much influence information

technology has on children's intelligence and know the percentage results in the field of intelligence where information technology can have an influence positive and negative.

The data were obtained from questionnaires, whose results were calculated using descriptive quantitative methods. The obtained data gained from the population sample of the study were analyzed using predetermined calculation methods. The descriptive research generated in this study were intended to gain an overview and information about the response of parents or the public regarding the influence of information technology on intellectual, emotional, spiritual, and social for children that are integrated with the management of the value system of education.

Thinking Framework in the Effect of Children's Intelligence on Education and Knowledge including: (a) Education can be used as a serious thought and discussed by all elements. It can also begin and is based on the teachings of each of the people they adhere to. Therefore, the child learns/takes during his education and can contribute theoretically and practically to personal development, career, and psychology development to improve the quality of

education in accordance with national education goals; (b) Designing learning systems and teaching systems can construct the psychology pragmatic and mathematic systemic in their thinking patterns automatically and continuity in students; (c) Reflecting, appreciating the role and strong lenses of students in developing an intellectual tool characteristic of mathematics can build their culture during the educational process; (d) Systematics that reflected in the aspects of the knowledge they obtain, can also be reflected in attitudes or traits that are embedded in students' personalities include thinking patterns that can construct reasoning power for their lives; (e) Educators in the teaching and learning process are able to stimulate, motivate, provide experience in diagnosing and overcoming the difficulties of students and evaluating them to foster understanding that is in line with the logic of thinking that will become a ray of life; (f) A student who has emotional intelligence height has an awareness of weakness and strength and oriented towards self-improvement. Such a child is able to manage his emotions, which means being able to restrain himself when his emotions are turbulent, and conversely able to

hasten to eliminate negative emotions into positive feelings for his progress. Motivate himself to learn well, leave, or stay away from things that are detrimental in learning.

### **THEORETICAL PERSPECTIVES**

Howard Gardner (2006) in his multiple intelligences, states that there are eight intelligences in humans, namely: linguistic / verbal / language intelligence, logical-mathematical intelligence, visual / space / spatial intelligence, musical/rhythmic intelligence, physical kinesthetic intelligence, interpersonal intelligence, intrapersonal intelligence and naturalist intelligence. The duty of parents and educators to maintain the traits that are the basis of children's intelligence to survive until they grow up, by providing good environmental factors and stimulation to stimulate and optimize brain function and children's intelligence. The problem is how parents and teachers can increase interest children to educate their brain functions through innovations that exist in the way children think (Poulou, 2018).

**Linkages to the Intelligence of Children with the Development of Communication Technology and Value Systems**

Beginning with intelligence (intelligence) is generally understood at two levels, namely: (a) intelligence as an ability to understand the information that forms knowledge and awareness; (b) intelligence as the ability to process information so that the problems faced can be solved with thus knowledge increases. Meanwhile logical intelligence is the ability of scientific reasoning, mathematical calculations, logical thinking, inductive/deductive reasoning, and the sharpness of abstract patterns and relationships, namely the ability to solve problems related to mindset needs as a solution. Children with the ability to form abstract patterns can increase in analytical and conceptual activities.

The management system of the level of intellectual intelligence is an interpretation of the results of intelligence tests into numbers that can be a clue about the position of a person's level of intelligence (Poulou, 2018; Ogden & Sorlie, 2018). Intellectual intelligence can work measuring speed, measuring new things, storing and recalling objective information, and playing an active role in calculating

numbers and others. The use of intellectual intelligence that accentuates the ability of logical thinking to find objective, accurate, predict risk, see the consequences of each decision that exists. Genetic factors that play a role in the formation of intellectual intelligence will not change much from time to time without the presence of a catalyst from the environment (Martin, 2003). Environmental factors encourage an increase in human thinking activities, which then leads to increased intellectual intelligence. Increased intellectual intelligence is indeed needed to survive (survival) and answer the challenges of the times. In essence, intellectual intelligence helps plan strategies and tactics. Intellectual intelligence (IQ) can be defined as follows: (a) The ability to work in an abstract, both using ideas, symbols, logical relationships, and theoretical concepts; (b) The ability to recognize and learn and use the abstraction; and (c) The ability to solve problems includes new problems (Lonn & Teasley, 2009; Scaini & Caputi, 2018). Thus intellectual intelligence is the intelligence of thinking and brilliant reason that manages the right brain and left the brain in a balanced manner, Lonn & Teasley (2009) as cognitive abilities globally that

are owned by individuals to act in an orderly manner and think logically.

Moreover, intellectual intelligence, according to Lately (2010) is as follows: (a) Related to the skills of using a coordinated limb, someone's interests, such as: having (b) a wide range of interests, keen observation, being able to remember quickly, imagine, have various hobbies, and mechanical skills; (c) Related to an impulse to create, find new (innovation); (d) Related to intellectual function.

This study will show how much change occurs in children after they use information technology and whether the influence of information technology has a positive or negative impact on the level of intelligence of children consisting of intellectual, emotional, spiritual, and social intelligence in terms of parents. This study uses quantitative descriptive methods with data collection using questionnaires, data processing, data analysis, and data interpretation.

### **Management of educational value systems in children's (emotional, spiritual and social) intelligence**

Management in children's emotional intelligence is a more ability of the sociological value system possessed by

individuals in motivating themselves, resilience in facing failure, controlling emotions and delaying satisfaction, and regulating mental states (Goleman, 2002; Cabral et al., 2018). With emotional intelligence with psychological values, individuals can put their emotions in the right portion, sort out satisfaction, and set their moods. Individuals who have high emotional intelligence can handle their own emotions psychologically well and pay attention to their emotional state, and respond correctly to their emotions to others. Meanwhile, Martin (2003) and Maryani & Ludigdo (2001) conducted a content analysis of seven authors on emotional intelligence issues. They found seven main elements: (a) Self-awareness; (b) Emotional management; (c) Self motivation; (d) Empathy; (e) Managing relationships; (f) Interpersonal communication; and (g) Personal style. Management of the value system in spiritual intelligence is the intelligence of the soul. they are being in a deep part of the self, related to wisdom outside the ego or conscious mind. Not only recognizing existing values but also creatively finding management of values that enable one to unite things that are intrapersonal and interpersonal, as well as bridging the gap

between self and others (Zohar & Marshall, 2000).

This form of spiritual intelligence is a moral attitude that is deemed noble by the perpetrator. The death of old ethics and the whole underlying frame of mind, provide valuable opportunities to create new ethical teachings based on spiritual intelligence (Zohar & Marshall, 2000). Spiritual intelligence can influence one's ethical attitudes spiritual intelligence; it is possible for someone to know better to do good and do the right actions based on conscience. Therefore, spiritual intelligence serves as the basis for considering an ethical move or not because of the spiritual intelligence deemed to be noble by the perpetrator, including management of the value system in social intelligence, which is a set of skills that enable us to interact more (Goleman, 2002; Gilang et al., 2017). People who have good social intelligence will be able to communicate with other people using their brains and bodies (Cowie, 2018). They have the ability to read other people's body language and listen to be able to succeed in broad life. Social intelligence will make someone comfortable anywhere with other people who have different backgrounds, ages, cultures, and social backgrounds and can

make them feel comfortable. So, based on the definition of the experts above, social intelligence means a person's ability to interact, associate, understand and cooperate with other people in different situations using social skills possessed (Buzan, 2002; Rosenberg, 2001).

### **Effect of management system on the values of attitudes, ethics, and aesthetics on children's intelligence**

Learning is a process of mental activity. Furthermore, it is said that to know better or understand more about learning, we need to understand more about brain function as an information processor (Buzan, 2002). The brain receives information, provides interpretations of information received, stores it, interprets (transforms), combines with other information to create new information, and includes information that was presented. The data collected by the brain is an object of learning, in general, is knowledge. Several researchers, Gilang et al. (2017) classifies knowledge into four categories, namely: (a) facts, (b) procedures, (c) concepts, and principles.

They states that changes in behavior or new abilities acquired by a person in the learning process are referred to as learning

outcomes, these opinions also support opinions:

“Through, Lonn & Teasley (2009) it is informed that attitudes are expressions of one's feelings that are deep, reflecting agree or disagree, which predisposes to specific objects. Attitude is an internal state of a person who can influence his behavior towards an object or event around him. They, Machado & Tao (2007) states that attitudes: (a) can be learned, (b) more than past experiences. (c) indirectly is a relationship between subject and object relating to groups, problems, specific individuals. (d) can be revealed through a few or many items. (e) Have affective motives. They D'Amico (2018) also states that attitude has three components, namely: (a) cognitive, is a component of consistent attitudes obtained through trust or individual belief in objects, (b) Feeling, is a component of attitudes related to emotional connection individual to object, and (c) action tendency which gives impetus for someone to act from the Internet, Holmes & Gardner (2006) obtained by the attitude component information abbreviated as ABC which is a description of Affective, Behavioral, and Cognitive. In general, the components of effective and cognitive tend to be more consistent or fixed while the conative part tends to be inconsistent or not fixed”.

Attitudes are defined as conative reactions caused by a stimulus that requires a response (establishment). Ethical attitudes and behavior are attitudes and behaviors that are generally accepted

by social norms related with beneficial and harmful actions (Maryani & Ludigdo, 2001).

Thus ethical attitudes and behavior are attitudes and responses that are considered suitable by professional ethics. As we already know, ethics is a discipline that deals with what is good and evil, right and wrong, or with Mondy's moral obligations and responsibilities (Wayne, 2008; Gilang et al., 2017). According to Bertens (Lonn & Teasley, 2009) the words “ethics” and “ethical” are not always used in the same sense; therefore “business ethics” can differ in meaning. Ethics are divided into two types, namely ethics as praxis and ethics as a reflection. Ethics as a praxis means moral values and norms as far as they are practiced or not practiced. Even though they should be practiced, it can also be said that ethics as a praxis is what is done to the extent of appropriateness or not in accordance with moral values and norms. Ethics as a reflection is moral thinking. In ethics as a reflection, it tries to give reasoning to think about what to do or not do. Ethics as a reflection, highlights, and assesses the bad behavior of people. Ethics in this sense, can be run at the popular level as well as (Holmes & Gardner, 2006; Lonn & Teasley, 2009). IQ is the mental age possessed by

humans based on a comparison of chronological ages.

“There are several factors that influence intelligence, namely: (a) Congenital or Biological Factors, where these factors are determined by the nature of being born. The limits of one's ability or ability to solve problems, among others, are determined by innate factors; (b) Typical Interests and Attributes where interest directs actions to a purpose and is an impetus for that action; Formation or Environmental Factors where formation is all conditions outside one's self that influence the development of intelligence; (c) Maturity Factors Where each organ in the human body experiences growth and development; (d) Freedom factor means that humans can choose certain methods in solving problems faced. In addition to the freedom to choose a method, it is also free to choose the problem that suits their needs”.

### **Measurement of Intelligence Levels and the Factors that influence it**

One widely accepted intelligence test is based on psychometric testing or IQ. Measurement of intelligence is done by using a written test or display test (performance test) or currently developing measurements with computer aids. Intelligence test equipment commonly used is a. Stanford-Binet intelligence scale; b. Wechsler scales which are divided into

several derivative test equipment such as WB (for adults) WAIS (for newer adults). WISC (for school-age children); WPPSI (for pre-school children); IST; TIKI (Indonesian Typical Intelligence Test Tool); FRT; PM-60, PM Advance.

### *Factors That Affect Achievement and learning*

Scaini & Caputi (2018) describe Internal factors are factors that come from within ourselves (students) which encourage a student to do something including: (a) Intelligence Factors. This intelligence plays an important role in student learning achievement. Because of the huge part of intelligence in achieving learning achievements, the teacher must give very high attention to the field of study that many need to reason; (b) Factors of Interest, Interest is a steady tendency in the subject to feel interested in a particular field. Students who lack interest in certain issues will hinder learning; (c) growth, physical health, state of the sensory devices and others. Psychic state shows the state of stability / mental stability of students because healthy physical and psychological are a very positive influence on teaching and learning activities and vice versa.



From the results of the analysis of the opinions above, it can be concluded that emotional intelligence in social interactions that affect learning achievement in the classroom is the ability of children/students to recognize and understand emotions. They, then, will use them and apply emotional strength and sharpness as a source of power, information and influence manifested in forms of behavior fostering relationships with classmates.

*External Factors*, External factors are factors that come from outside the student's self that affects student learning achievement. These external factors can be obstacles that come from outside or motivated from outside the students, including Teacher Factors, Family Environment Factors and Factors of Learning Resources.

At this time, learning resources can be obtained from cyberspace. The development of the internet, mobile phones, and other media have a significant influence on student learning achievement. The internet is a technology that provides various information and data needed. Internet is an international network that can connect computers in the world. This Internet network is connected by

telephone networks (electromagnetic networks) (Trihandini & Meirnayanti, 2005; Cabral, et al., 2018).

## RESEARCH METHODS

Outline planned research designs can be explained as follows: Activities carried out by assigning assignments to students to be completed by utilizing internet technology and without using internet technology so that these results will be evaluated to obtain new data as a basis for concluding the results of the study (Machado & Tao, 2007; Rosenberg, 2001). During the study, discussions were always held with senior researchers to maintain the quality of the research results.

Data collection methods used in this study include: Questionnaire (questionnaire). Questionnaires are some written questions that are used to obtain information from respondents (Machado & Tao, 2007; Holmes & Gardner, 2006). Questionnaires are distributed to 60 parents to give statements about the effect of information technology on children's intelligence (intellectual, spiritual, emotional and social). The type of questionnaire used in this study is a closed questionnaire which is a type of questionnaire in which the answers to each

question are provided so that the respondent needs to choose one of the answers [in 16]. The answers provided from each question use the answers to the Likert Scale value developed by Rensis Likert. Likert scale is a measurement scale used to measure attitudes, opinions, and one's perceptions of social phenomena (Lately, 2010). In this scale, the answers to each instrument item have gradations from very positive to very negative (Holmes & Gardner, 2006). The scale in this study uses a Likert scale with five intervals. The population in this study were parents who had children aged 5-15 years. Then the research results are processed using the mean calculation formula. The mean is the average, or more clearly, the mean is the average value that we can get from information. The single data means has the following formula:

$$\bar{x} = \frac{x_1 + x_2 + \dots + x_n}{n}$$

$x_i$  = first sample value

$n$  = number of samples

$x_i$  = count average

### **Effect of Information Technology on Intelligence**

$x_i$  = first sample value

$n$  = number of samples

### **The sequence of Question Intellectual Aspects**

- X1 How is your child's achievement in school after being introduced to Technology Information?
- X2 What is your child's learning interest at home after using a gadget?
- X3 What is the impact of using information technology on children's learning processes?
- X4 What is the level of understanding of your child in receiving subject matter at school after using gadgets and social media?
- X5 How does information technology affect the development of your child's intelligence?

### **Emotional Aspects**

- X6 How is your child responding when ordered by parents while playing gadget?
- X7 How often do you know your child is telling lies after using information technology (gadgets, laptops, etc.)?
- X8 How often does your child carry out optional activities (playing games) watching movies on laptops, etc.)

after getting to know information technology?

rude to parents?

**Social Aspects**

- X9 How to associate your child with their peers after being introduced to information technology or gadget?
- X10 How your child treats his peers after being introduced to information technology or gadget?
- X11 How about your child's social activities after being introduced to information technology or gadget?
- X12 How is your communication relationship with your child after he was given a gadget?
- X13 What is your child's attitude after using social media applications like Facebook, Instagram, Twitter, playing gadget?
- X14 What is the change in your child's emotions after using a gadget?
- X15 What is your child's reaction when his friend has a more sophisticated gadget?
- X16 What is your child's ability to solve every problem after introduced to information technology?
- X17 After getting to know the gadget, does your child often argue or say

**Spiritual Aspects**

- X18 Is your child on time in carrying out his worship obligations after introduced to technology?
- X19 Whether when attending security activities, your child can concentrate or instead, focus on the gadget?
- X20 How often does your child use religious applications in carrying our religious activities?

**POPULATION AND SAMPLE**

The population in this study were parents who had children aged 5-15 years. Respondents were given a questionnaire containing 20 questions consisting of 5 questions about intellectual aspects, emotional aspects, spiritual aspects, and social aspects. Then the research results are processed using the mean calculation formula.

**RESULTS AND DISCUSSION**

Based on the results that have been distributed, the following results are obtained:

**Intellectual Aspects**

**Table 1. Questionnaire Results**

No	Rating Weight
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	1	2	3	4	5
X1	16	2	19	21	2
X2	11	25	30	3	1
X3	22	26	3	8	1
X4	28	11	4	15	2
X5	3	19	22	13	3

**Emotional Aspects**

**Table 2. results of the questionnaire**

No	Rating Weight				
X6	3	31	16	73	
X7	2	22	25	11	0
X8	4	14	21	17	4
X9	0	7	39	12	2
X10	2	12	17	18	11

Based on the quiz that has been distributed, (X), the results are as follows:

- X1 A total of 19 parents stated that IT had a good influence on children.
- X2 A total of 29 parents stated that IT had less influence on children's interest in learning at home.
- X3 A total of 24 parents stated that the impact of the use of information technology had an adverse effect.
- X4 A total of 30 parents stated that the level of understanding of your child in accepting subject matter after using a gadget has an adverse effect.
- X5 A total of 24 parents stated that the influence of information technology on the development of intelligence

- has a pretty good influence.
- X6 IT has a bad influence on a child's Response when ordered by parents while playing gadgets.
- X7 A total of 28 parents stated that IT has a pretty good influence in changing children's emotions.
- X8, That IT has a considerable influence
- X9 on having more sophisticated gadgets. A total of 41 As many as 24 reactions of parents' children stated that IT has a pretty good influence on children's ability to solve problems.
- X10 A total of 16 parents stated that their children often said rudely after getting to know the gadget.

Quizisoner calculations for the influence of IT on intellectuals yielded a value of 49. These results indicate that information technology has an unfavorable influence on children's intellectual intelligence. The development of IT can make a child's level of interest in learning decline and can have a negative influence on the level of children's achievement.

Emotional intelligence is influenced by various factors, one of which is the condition of the environment and habits. After being analyzed from the data obtained, it produced a value of 69.1, so

that it can be said that the influence of IT on emotional intelligence is quite good. Child development accompanied by the use of technology, in fact, does not harm emotional level, because parents are still 64.5.

the influence of information technology on children's attitudes have a pretty good influence.
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### Spiritual Aspects

**Table 3. Questionnaire Results**

No	Rating Weight				
	1	2	3	4	5
X11	2	22	25	11	0
X12	0	00	21	26	2
X13	13	30	19	9	1
X14	7	3	10	26	14
X15	9	15	18	10	8
X16	0	5	21	27	7
X17	0	4	25	25	6
X18	0	6	28	20	6
X19	0	5	30	15	10
X20	1	5	35	19	0

Data from the table above (Table 3) shows that:

### Social Aspects

**Table 4. Results of the questionnaire**

No	Rating Weight
X16	A total of 21 parents stated that IT had a good influence on child interaction with their peers.
X17	A total of 25 parents believe that their child treats friends his age well.
X18	A total of 28 parents stated that IT has a pretty good influence on children's social activities
X19	A total of 30 parents stated that IT had a pretty good influence on the relationship between parent and child communication.
X20	A total of 35 parents stated that

The development of IT has a significant influence on changes in social relations. The number of existing social media applications gives a change in the way social interaction occurs, so there are some people who can have many friends and some who feel isolated. For this problem, the calculation carried out resulted in a value of 69.1 so that it indicates that the influence of IT on social intelligence in children is having a good impact. Children are easier to make new friends and relationships with friends around the environment are still well established. Children can still spend playing with friends of their age. This cannot be separated from the role of parents in supervising children.

Emotional intelligence is influenced by various factors, one of which is the condition of the environment and habits. After being analyzed from the data obtained, it produced a value of 63.2 so that it can be said that the influence of IT on emotional intelligence is quite good. Child development accompanied by the use of technology, in fact, does not harm the emotional level, because parents can still control the use of IT in their children's

activities. IT can help individuals to carry out their worship activities, depending on how they can maximize them. From the data obtained and after being analyzed, the researchers got the results of the value 61.1, which means that the influence of IT on spiritual intelligence is quite good. The development of IT does not have a negative impact that can change the habits of a child; parents are also still able to control the time and limits of IT usage by its portion.

No	Results Recapitulation
X1	A total of 21 parents stated that IT had a good influence on children.
X2	A total of 25 parents stated that IT had less influence on study children at home.
X3	A total of 26 parents stated that the impact of using information technology had an adverse effect.
X4	As many as 28 parents stated that the level of understanding of your child in receiving the subject matter after using the gadget had a bad influence.
X5	As many as 22 parents stated that the influence of information technology towards the development of intelligence has a pretty good influence.
X6	A total of 31 parents stated that IT had a bad influence on the child's response when ordered.
X7	A total of 25 parents stated that IT has a pretty good influence on changing children's emotions.
X8	A total of 21 parents stated that

	Ti had a good influence on the child's reaction when his friend had a more sophisticated gadget.
X9	As many as 39 parents stated that IT has a pretty good influence on children's ability to solve problems.
X10	As many as 18 parents stated that their children often said rudely after getting to know the gadget.

## CONCLUSION

The development of IT has a significant influence on changes in social relations. The number of existing social media applications gives a change in the way social interaction occurs, so some people can have many friends and some who feel isolated. For this problem, the calculation carried out resulted in a value of 69.1 so that it indicates that the influence of IT on social intelligence in children is having a good impact. Children are easier to make new friends and relationships with friends around the environment are still well established. Children can again spend playing with friends of their age. This cannot be separated from the role of parents in supervising children.

From the four variables measured in the study, an average value of 64.5 was produced. This shows that the influence of IT on children's intellectual, emotional, spiritual, and social intelligence is quite

good. The role of parents is constructive in the development of the level of intelligence of children. Information technology is just a tool and advice that can have different effects for each user depending on how the user uses it. For children themselves, of course, for a wise use of IT, supervision from parents is needed so that the development of good IT can also be balanced with proper child development.

Based on the results of hypothesis testing in this study, the following conclusions are obtained: (a) IT has a sufficiently good influence on children's intellectual, emotional, spiritual, and social intelligence; (b) IT has a bad influence on children's intellectual intelligence; (c) IT has a fairly good influence on children's emotional intelligence; (d) IT has a pretty good influence on children's spiritual intelligence; (e) IT has a good influence on children's social intelligence”.

Thus, parents are expected to pay more attention to their children when using information technology media so that they can still provide excellent benefits. For further research, it is expected to be able to analyze data using methods other than the purposes in this study.

Research has not shown about the reasons why information technology can have positive or negative impacts on children, so it is expected that further research can show results regarding reasons and methods of mitigation to be able to utilize information technology properly.

## REFERENCES

- Buzan, T. (2002). *Use Your Perfect Memory: Memory Optimization Techniques, Recent Findings Of the Human Brain*. Translator Basuki Herwono. Yogyakarta: Teralita Icon.
- Cabral, H., Denham, S. A., Housman, D. K. (2018). *Building young children emotional competence and self-regulation from birth: they begin to ECSEL approach*. University of Malta. Center for Resilience and Socio-Emotional Health.
- Cowie, H. (2018). *Coping with the emotional impact of bullying and cyberbullying: how research Can inform*. University of Malta. Center for Resilience and Socio-Emotional Health.
- D'Amico, A. (2018). *The Use of Technology in the Promotion of Children's Emotional Intelligence: The Multimedia Program “Developing*

- Emotional Intelligence". *International Journal of Emotional Education*, 10(1), 47-67.
- Gilang, W. S., Rivai, M. A., Su'udah, M., Wulandari, S. L. G., Dewi, T. R., Fitroh. (2017) Effect of information technology on intelligence (intellectual, spiritual, emotional social) case studies: children.
- Goleman, Daniel. (2002). *Emotional Intelligence*. Jakarta: PT. Gramedia Main Library Cooper, R.K and Sawaf, A. 1998. *Executive EQ Emotional Intelligence in Leadership and Organization* (translation by Widodo). Jakarta: Gramedia Library. Agustian, Ary Ginanjar. 2003. *ESQ POWER An Inner Journey through Al-Ihsan*. Jakarta: Arga.
- Holmes, B., Gardner. (2006). *E-Learning: Concepts and Practice*. London: Sage Publications.
- Lately, Nur. (2010). *Effect of IQ, EQ, and SQ on the level of understanding of taxation courses*. Essay. University of Trunojoyo.
- Lonn, S., Teasley, S. (2009). Saving time or innovating practice: Investigation perceptions and uses of Learning Management Systems. *Computers & Education*, 53 (3), 686-6.
- Machado, M., Tao, E. (2007). Blackboard vs. Moodle: Comparing user experience of learning management systems. In *Frontiers of the In Education Conference - Global Engineering: Knowledge Without Borders, Opportunities Without Passports, FIE'7*. 37th Annual (pp. S4J-7). IEEE.
- Martin, Anthony Dio. (2003). *Emotional Quality Management: Reflection, Revision, and Revitalization of Life Through Emotional Strength*. Jakarta: Arga Publisher.
- Maryani, T., Ludigdo. (2001). *Survey of the Factors Affecting the Attitudes and Ethical Behavior of Accountants*. THEME. Volume II Number 1. March. p. 49-62.
- Nikmah, A. (2013). Impact of mobile phone use on student achievement. *Ejurnal Surabaya Education Agency: Volume 5*.
- Ogden, T., Sorlie, M. A. (2018). Implementing and evaluating empirically based family and school programs for children with conduct problems in Norway. The University of Malta. Center for Resilience and Socio-Emotional Health.
- Poulou, Maria Helen. (2018). *Students 'emotional and behavioral difficulties:*



- the role of teachers' social and emotional learning and teacher-student relationships*. The University of Malta. Center for Resilience and Socio-Emotional Health.
- Rosenberg, M. J. (2001). *E-learning: Strategies for delivering knowledge in the digital age*. Volume 3. New York: McGraw-Hill.
- Scaini, S., Caputi, M. (2018). *The interaction between psychopathological symptoms and conflictual parent-child relationship in predicting social skills and coping strategies* (University of Malta. Centre for Resilience and Socio-Emotional Health.
- Setyowati, Y. (2005). *Family communication patterns and children's emotional development Case studies of the application of family communication patterns and their effects on children's emotional development in Javanese families*. *Journal of Communication Sciences*, 2 (1), p. 67–78
- Susena, et al. (2013). *The Impact of Internet Use on High School (SMA) Student Intelligence in Rural Areas in Order to Improve the Quality of Education in Rural Areas*. Sainstech Journals Surakarta Polytechnic: Volume 1.
- Trihandini, R. A., Meirnayanti, F. (2005). *Analysis of the Effect of Intellectual Intelligence, Emotional Intelligence and Spiritual Intelligence on Employee Performance (Case Study at Horizon Hotel Semarang)*. Thesis. Semarang: Diponegoro University
- Wayne, M. R., (2008). *Human Resource Management*. Jakarta: Bandung publisher.
- Zohar, D., Marshall, I. (2000). *Spiritual Intelligence, The Ultimate Intelligence*. London: Bloomsbury Publishing.