

# EFFECTIVENESS OF THE CASTLING APPLICATION ON SOCIAL INTERACTION AND PREVENTING BULLYING IN CHILDREN USING GADGETS IN THE WORKING AREA OF SIMPANG LIMUN HEALTH CENTER MEDAN, NORTH SUMATRA PROVINCE IN 2023

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## ***Abstract***

*This research aims to measure the effectiveness of the Kastling application on social interactions and preventing bullying among children who use gadgets in the working area of Simpang Limun Community Health Center, Medan City, North Sumatra Province in 2023. The method used in this research is a quantitative method, a quasi-experimental research design with a one group test approach. The findings in this research are that the effectiveness of the kastling application on social interactions and preventing bullying among children who use gadgets in the working area of the Simpang Limun Community Health Center, Medan City, North Sumatra Province in 2023 is very effective. Based on the 5 stages of child development, there are 2 categories that greatly influence bullying prevention measures. The first is at the stage of how to protect yourself from bullying from friends or self-coping. There are 18 children (90%) in the very good category. In this way, this social interaction makes children able to protect themselves from the possibility of bullying in their environment and social life. Then in the second highest stage, namely how to help friends who need help, there were 16 children (80%) in the very good category. This interaction really reflects a very high level of social feeling towards others, thus bullying can be prevented by this mutual help interaction.*

***Keywords :***Kastling, Social, Bullying, Gadgets.

## **I. INTRODUCTION**

Technology is here to make things easier for humans, the communication tools currently commonly used are smartphones or gadgets. This communication tool is an important need for adult users, teenagers and even children. This should be a special concern for parents, teachers and even the surrounding community. Because, using smartphones freely, even without a filter, will cause more negative impacts than positive impacts. The use of information and communication technology (ICT) in gadgets in particular and the internet in general in early childhood has been a controversial topic for decades. Rigorous debate has centered on the impact of new technologies on children at large. The experience of using gadgets by children in the classroom was observed to address aspects including the child's level of agency, participation, competence and involvement in learning activities. (Salis H, Y., & Astuti, R. 2020).

Based on We Are Social's latest report, in 2020, it was stated that there were 175.4 million internet users in Indonesia. Compared to the previous year, there was an increase of

17% or 25 million internet users in this country. Based on Indonesia's total population of 272.1 million people, this means that 64% and half of Indonesia's population have access to cyberspace. In the report on this matter, it is also known that currently 338.2 million Indonesians have cellphones. Likewise, data that is no less interesting is that there are 160 million active social media users. The social media most widely used by Indonesian internet users are YouTube, WhatsApp, Instagram, Twitter, Line, Facebook, LinkedIn, Pinterest, We Chat, Snapchat, Skype, Tik Tok, Tumblr, Reddit, Sina Weibo.

Gadgets in the general sense are considered to be electronic devices that have special functions for each device. For example: computers, cellphones, games and others. In reality, when children are too engrossed in the world of gadgets, they will forget about children's basic needs, namely learning and socializing properly in life. Children really enjoy the fun of using smartphones in children's daily activities. good days at home, school and also children's play areas, so some children tend to enjoy enjoying the gadgets they have. (Syifa, L 2019). The impact of using gedges of course has positive and negative values, one of the negative impacts of excessive use of gedges is the child's lack of development in the social world. (Nopitadewi, KA, 2020)

According to the World Health Organization (WHO) in 2018, it was explained that child development problems were increasing, according to 2018 UNICEF data, there were 165 million children throughout the world who experienced stunted development. North Sumatra Riskesdas data in 2018 saw the number of children who experienced stunted development, especially in development. social was recorded at 73.07%. The Indonesian Child Protection Commission (KPAI) received reports of 37,381 cases of child violence in the period 2011 to September 2019, which occurred at every level of education, around 2,473 cases. Commitment to Recognition and Protection of children's rights is guaranteed in the 1945 Constitution of the Republic of Indonesia Article 28 B paragraph (2) states that every child has the right to survival, growth and development and the right to protection from violence and discrimination. One form of violence that occurs in children is bullying, which is done by strong people against weak people, carried out intentionally by one person or group. (Elmahera, D 2018). Cases of bullying often occur in the world of education, but it does not rule out the possibility that pre-school age children can experience various forms of violence, such as physical and psychological, which will have a negative effect on children's development, especially their social development. Children's social emotional development is the development of behavior in adapting to the rules that apply in the community environment. Children's development is not always stable, many factors influence their emotional stability, one of which is the environment.

The use of technology to obtain information through media and communication tools such as gadgets has changed the behavior of society and human civilization globally, the use of gadgets is not only for adults, currently children under five are using them, which has an impact on hampered thinking power making it difficult to be creative and cause change. The world has become borderless, with significant social, cultural and economic changes and has become an effective means for unlawful acts. Social development is very important to pay

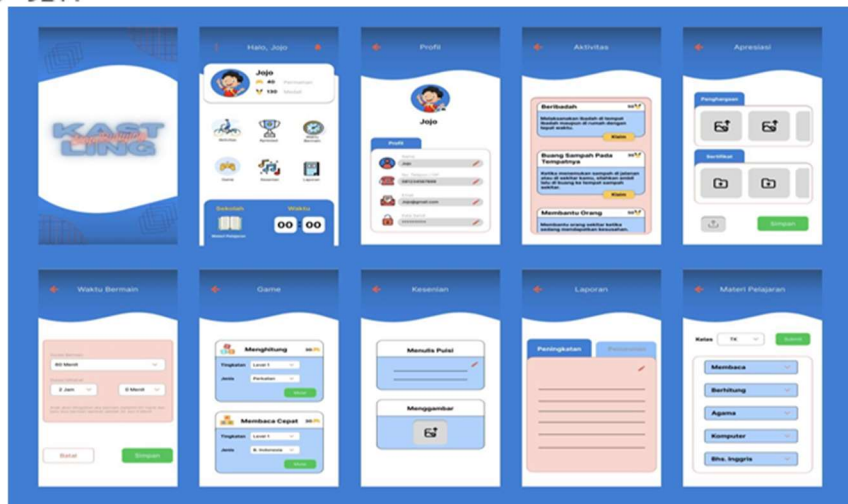
attention to, inappropriate social development causes children not to be ready to socialize properly and can ultimately lead to incidents of bullying against the child. (Rahmani, SU 2021).

Bullying greatly affects the social life of every child, especially the victims. Bullying makes children unable to interact well with the social environment around them. Bullying can also hinder the process of self-development in children. Steve Wharton (2009: 86) bullying behavior causes unhappiness in children so that children cannot reach their full potential. Therefore, good social interaction skills are very necessary for every child so that children are able to socialize and get along well in their environment. The culture of bullying (violence) still continues to occur among children. Bullying is a form of child abuse that is carried out by peers against someone (a child) who is lower or weaker to gain certain benefits or satisfaction. (Tirmidziani. A,

Bullying behavior can be seen when a person or group of people repeatedly tries to hurt someone who is weak, such as hitting, kicking, or by using bad nicknames, mocking, insulting and teasing or with sexual insults, spreading rumors or trying to make other people reject someone. (Adi Santoso, 2018).

Bullying cases in Indonesia increased every year, from 2011 to 2014. The Indonesian Child Protection Commission (KPAI) wrote 1480 reports on the problem of bullying. At least 25% of this number, namely 369 cases, were in the education sector. KPAI noted that throughout 2016 cases of children having legal problems increased 15% from 2015, namely 298 cases. (Mia, N 2021)

Apart from having a negative impact, technology actually has a positive impact. In this case, technology can facilitate everything that humans need, such as the kastling stop bullying application. This application provides features that parents can use to monitor their children's social development through the features available in it. Using this application begins with registration and verification using a parent's account, so that parents can monitor their child's activities when using the gadget. Animated design so that children can easily understand and enjoy seeing the application. The purpose of this application is to measure children's social development, how to communicate with peers, how to help friends who need help, how to protect themselves from interference from friends or self-coping, learn literacy and numeracy according to the child's age, as well as games that can train children's behavior in preventing bullying. The application that has been designed can be seen in Figure 1 below:



*Figure 1. Kastling App*

**Figure 1**

Every individual experiences growth and development. Growth refers to physical aspects, while development refers to non-physical aspects. The word 'development' has a broad meaning, including growth. Every individual experiences growth and development. Growth refers to physical aspects, while development refers to non-physical aspects. The word 'development' has a broad meaning, including growth. Aspects of development experienced by each individual include: (1) physical growth (growth before birth and growth after birth), (2) intellect, (3) emotions, (4) social, (5) language, (6) special talents, (7) attitudes, values and morals. (Dwiyono, Y 202). The formation of a child's character is not just born, there is a process that goes through so that this process becomes an inherent character in a child. Starting from the time the child is born and grows into an adult in the family environment, socializing with friends in play groups, school, and even the community. (Prasanti, D 2018). The growth and development of pre-school children is a very important period as the beginning of further development. It is hoped that parents will learn or pay attention to the child's development process because as parents they definitely have the desire to become better educators for their children. (Santrock in Winarsih, BD, & Hartini, S. 2020).

Based on the background above, the author is interested in conducting research on the effectiveness of the kastling application on social interactions and preventing bullying in children who use gadgets in the working area of Simpang Limun Community Health Center, Medan City, North Sumatra Province in 2023.

## II. REVIEW OF LITERATURE

### 2.1 Technology

Technology comes from the Greek word *technologia*, according to the Webster Dictionary, which means systematic treatment or handling something systematically, while *tecnhe* as the basis of the word technology means skill, science or expertise, skills and knowledge. The word technology literally comes from the Latin word *texere* which means to

arrange or build, so the term technology should not be limited to the use of machines, although in a narrow sense it is often used in everyday life (Rusman et al., 2011).

Technology is basically a result of science which is very useful if used wisely. One form that we usually see and has many uses for technological progress is the presence of the internet. With the internet, information sources that were previously limited and difficult to access are now very easy and can be done anywhere as long as the network has coverage.

## 2.2 Social interaction

According to Yoseph Mac Grath, social interaction is a process that is related to the overall behavior of members of an activity group in relation to others and in relation to aspects of the environmental conditions, while the group is engaged in activities. So, social interaction as proposed by Yoseph Mac Grath is social interaction in terms of all the behavior of group members when carrying out activities.

Furthermore, Hubert Bonner stated that social interaction is a relationship between two or more individuals, where the treatment of one individual influences, changes, or improves the treatment of another individual, or vice versa. Arifin (2015) states that social interaction is a necessity in social life, which can influence the community group in which an individual lives and the surrounding environment.

It can be concluded that social interaction is a social relationship between individuals and individuals, between groups and groups or between individuals and groups that have certain goals.

## 2.3 Bullying

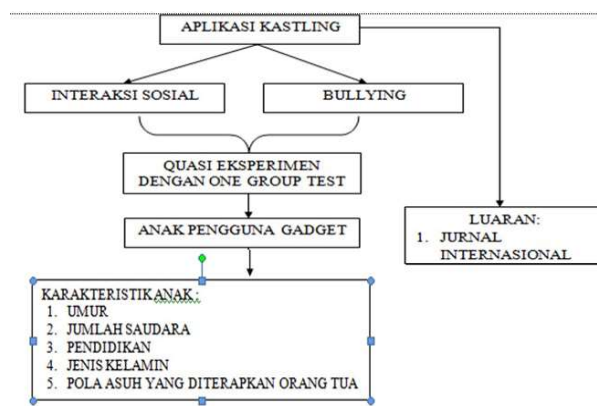
Bullying behavior is an action carried out repeatedly by a stronger child against a child who appears weak both physically and psychologically. Olweus (in Harris & Petrie, 2003) defines bullying as dangerous aggressive behavior that is carried out repeatedly by a group of stronger people and occurs in a relationship where there is an imbalance of power that occurs without provocation from the victim. Olweus states that the behavior of an imbalance of power and bullying that occurs repeatedly bullying behavior with other forms of aggression.

Sejiwa (2008) states that the term bullying comes from the English word "bull" which means "bull" who likes to butt heads. Bullying is a situation where there is abuse of power or power carried out by a person or group. In this case the victim of bullying is unable to defend or defending himself because he is physically or mentally weak. Bullying is a situation where someone who is strong presses, corners, abuses, hurts someone who is weak intentionally and repeatedly.

## III. RESEARCH METHOD

The method used in this research is a quantitative method, a quasi-experimental research design with a one group test approach so that differences in development can be seen before and after treatment. The population in this study were 72 months old toddlers and pre-school children in the Simpang Limun Medan Community Health Center Work Area in 2023 who

actively used gadgets as many as 20 people. The variables studied are the characteristics of respondents such as age, number of siblings, education and gender of children who use gadgets, identifying parenting patterns applied by parents, measuring children's social development before and after using the application. The implementation of the research can be seen in the following flow diagram.



**Figure 2.** Implementation of research

This research is Phase I (January-December 2023) which is the stage where the application that has been designed and has been entered into the Playstore can be tested on preschool children to see whether it is effective in preventing bullying and can measure the social development of children in the working area of the Simpang Limun Public Health Center, Medan City in 2023.

**Table 1.** Research Stage

No	Name of activity	Month											
		1	2	3	4	5	6	7	8	9	10	11	12
1	Letter processing, study/data collection	v	v										
2	Implementation of research phase 1			v	v	v	v	v	v				
3	Data processing								v	v			
4	Preparation of initial research report										v	v	

**IV. RESULTS AND DISCUSSION**

In this research, the author focuses on analyzing the effectiveness of the kastling application on social interaction and preventing bullying in children who use gadgets in the working area of Simpang Limun Health Center, Medan City, North Sumatra Province in 2023. This research is stage 1 research which is divided into 1 cycle, namely the cycle. 1 (January-June) then cycle 2 (July-December). The results of the analysis were carried out using the castling application by parents to see: a) children's social development, b) how to communicate with peers, c) how to help friends who need help, d) how to protect themselves

from interference from friends or self-coping, e) learn literacy and numeracy according to the child's age. Next, the data is analyzed based on the results obtained from respondents or parents.

In this research, parents play an active role in observing children's social development through the castling application. Children's ability to carry out social activities can be seen from children's understanding of interacting in their daily environment in the January-June period. The following is a table of observation results in cycle I.

**Table 2.**Observations in Cycle I

Child's abilities	Implementation of Social Interaction				Number of children
	Not enough (60-70)	Enough (71-80)	Good (81-90)	Very good (91-100)	
Child social development	0	5	13	2	20
How to communicate with peers	7	8	2	3	20
How to help a friend who needs help	1	4	6	9	20
How to protect yourself from friends' harassment or self-coping	0	3	7	10	20
Learn literacy and numeracy according to the child's age	5	6	8	1	20

Based on the data obtained in table 2 Observations in Cycle I, in the social development of children in the poor category there were 0 children or 0%, in the sufficient category there were 5 children or 25%, in the good category there were 13 children or 65%, in the very category either there are 2 children or 10%. Next, at the stage of how to communicate with peers, in the poor category there were 7 children or 35%, in the sufficient category there were 8 children or 40%, in the good category there were 2 children or 10%, in the very good category there were 3 children or 15%. Next, at the stage of how to help friends who need help, in the poor category there is 1 child or 5%, in the sufficient category there are 4 children or 20%, in the good category there are 6 children or 30%, in the very good category there are 9 children or 45%. Next, at the stage of how to protect yourself from interference from friends or self-coping, in the poor category there are 0 children or 0%, in the sufficient category there are 3 children or 15%, in the good category there are 7 children or 35%, in the very good category there are 10 children or 50 %. Finally, at the literacy and numeracy learning stage according to the child's age, in the less category there are 5 children or 25%, in the sufficient category there are 6 children or 30%, in the good category there are 8 children or 40%, in the very good category there are 1 child or 5 %.

Based on the data above, it can be seen that observations in cycle I at the child's social

development stage there were 10% of children who experienced very good development, in the way of communicating with peers there were 15% of children who experienced very good development, in the stage of how to help friends who needed help there are 45% of children who experience very good development, at the stage of how to protect themselves from interference from friends or self-coping there are 50% of children who experience very good development, at the stage of learning literacy and numeracy according to the child's age there are 5% of children who experience very good development .

Furthermore, in cycle II observations, parents played an active role in observing children's social development through the castling application. Children's ability to carry out social activities can be seen from children's understanding of interacting in their daily environment in the July-December period. The following is a table of observation results in cycle II.

**Table 3.**Observations in Cycle II

Child's abilities	Implementation of Social Interaction				Number of children
	Not enough (60-70)	Enough (71-80)	Good (81-90)	Very good (91-100)	
Child social development	0	1	4	15	20
How to communicate with peers	0	2	3	14	20
How to help a friend who needs help	0	1	3	16	20
How to protect yourself from friends' harassment or self-coping	0	0	2	18	20
Learn literacy and numeracy according to the child's age	0	1	6	13	20

In table 3 Observations in Cycle II, in the social development of children in the poor category there are 0 children or 0%, in the adequate category there are 1 child or 5%, in the good category there are 4 children or 20%, in the very good category there are 15 children or 75%. Next, at the stage of how to communicate with peers, in the poor category there were 0 children or 0%, in the sufficient category there were 2 children or 10%, in the good category there were 3 children or 15%, in the very good category there were 14 children or 70%. Next, at the stage of how to help friends who need help, in the poor category there are 0 children or 0%, in the sufficient category there is 1 child or 5%, in the good category there are 3 children or 15%, in the very good category there are 16 children or 80%. Next, at the stage of how to protect yourself from interference from friends or self-coping, in the poor category there are 0 children or 0%, in the sufficient category there are 0 children or 0%, in the good category there are 2 children or 10%, in the very good category there are 18 children or 90 %. Finally,



at the literacy and numeracy learning stage according to the child's age, in the poor category there are 0 children or 0%, in the sufficient category there is 1 child or 5%, in the good category there are 6 children or 30%, in the very good category there are 13 children or 65 %.

Based on data from cycle I and cycle II, in the social development stage of children, in cycle I, 10% in cycle II became 75% of children who experienced very good development, in how to communicate with peers in cycle I, 15% in cycle II became 70 children who experienced very good development, at the stage of how to help friends who need help in cycle I 45% in cycle II became 80% of children who experienced very good development, at the stage of how to protect themselves from interference from friends or self-coping in cycle I 50% in cycle II became 90% of children who experienced very good development, at the literacy and numeracy learning stage according to the child's age in cycle I, 5% in cycle II became 65%. children who are developing very well.

## Discussion

Walgito (2003) states that social interaction is a relationship between one individual and another individual, one individual can influence another individual or vice versa. This relationship can be between individual and individual, individual and group or group and group. In social interaction there is a possibility that individuals can adapt to others, or vice versa. This interaction process aims to continue a person's life as an individual who is capable of socializing.

The level of social interaction abilities of toddlers and pre-school children in the Simpang Limun Medan health center work area is at a very good average score from the 5 ability categories in table 1 and table 2. Especially at the stage of how to protect yourself from interference from friends or self-coping, there are 18 children (90%) were in the very good category. In this way, this social interaction makes children able to protect themselves from the possibility of bullying in their environment and social life. Then in the second highest stage, namely how to help friends who need help, there were 16 children (80%) in the very good category. This interaction really reflects a very high level of social feeling towards others, thus bullying can be prevented by this mutual help interaction. Furthermore, the social development of 15 children (75%) is in the very good category, this is clearly seen by having very good social interaction which will certainly reduce the possibility of bullying. This is in line with research conducted by Rahmawati (2014) which suggests that social interaction can be interpreted as dynamic social relationships. The social relationship in question can be a relationship between one individual and another individual, between one group and another group, or between a group and an individual.

## V. CONCLUSION

Based on the research results above, it can be concluded that the effectiveness of the Kastling application on social interaction and preventing bullying among children who use gadgets in the working area of Simpang Limun Community Health Center, Medan City, North Sumatra Province in 2023 is very effective. Based on the results of observations in cycles I

and cycle II in the social development stage of children, in cycle I 10% in cycle II became 75% of children who experienced very good development, in the way of communicating with peers in cycle I 15% in cycle II became 70 children who experienced very good development, at the stage of how to help friends who needed help in cycle I 45% in cycle II became 80% of children who experienced very good development, at the stage of how to protect oneself from interference from friends or self-coping in cycle I 50% in cycle II became 90% of children who experienced very good development, at the stage of learning literacy and numeracy according to the child's age in cycle I 5% in cycle II became 65% children who are developing very well.

Based on the 5 stages of child development, there are 2 categories that greatly influence bullying prevention measures. The first is at the stage of how to protect yourself from bullying from friends or self-coping. There are 18 children (90%) in the very good category. In this way, this social interaction makes children able to protect themselves from the possibility of bullying in their environment and social life. Then in the second highest stage, namely how to help friends who need help, there were 16 children (80%) in the very good category. This interaction really reflects a very high level of social feeling towards others, thus bullying can be prevented by this mutual help interaction.

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