



DEVELOPING A TECHNO-FAMILY THROUGH VIRTUAL-REALITY BENTHIX GAME

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Abstract. The development of information technology cannot be separated from the family. It produces three classifications of family: social & family; media & family and technology & family. The problems that exist in techno-family include the pattern of parent education to the child, how parents oversee the use of social media owned by children, and how gaming can use as an educational pattern in improving family relationships. This study aimed to improve family's understanding of information technology through the use of virtual reality game. This study involved 70 respondents and the data gathered was analyzed using Johari window. A formula for the techno-family was created ($F = L.K2$) and developed into seven stages and seven essential elements that can be applied to the family, to find out how mature the family is in educating especially in the field of technology information-social media-game, and they are called the seven stages of techno-family (the maturity level of family-technology). Knowing the weaknesses and strengths of a family is at the core of building and producing high-quality human resources that have the power of character that can provide positive benefits and contributions to the family life itself, society, and the world. Techno-family is one of the solutions to change the culture and future inside the family. As a result, the virtual game Benthix game can be used to develop families in terms of culture and ability development.

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A. INTRODUCTION

The family is a significant aspect of life. It is the core of the current life processes in the world as well as the strengths and weaknesses of every family. On the other hand, the rapidly evolving development of information technology, social media, the internet, games and so on, changes the character of the family and transforms the individual in it; this change can be positive or nega-

tive, depending on the family itself (Edmundo et al., 2018; Gonçalves et al., 2018; Feridun O. et al., 2015). Therefore, families must understand technology, not only children but also parents, so that families will be able to face the globalization and change the future. Furthermore, we define a family influenced by information technology to be a techno-family; the family who influenced by social factors to be a social media- fami-

ly. Social media-family means a family formed from the influence of the social environment and it is an influence on the mindset, habits; character, and attitude (I Gamayanto et al., 2018; Indra Gamayan-to et al., 2019). Moreover, a family also got influence from information that develops in social media, coming from the internet, and the influence of advances in information technology such as games and others. Moreover, this research is a project that we do on campus and have been successfully applied. Therefore, in this research, we developed this further research to apply this project to the family level. This research is a development of the Benthix Game project, which is a traditional game in Indonesia, which is a cultural heritage. Moreover, the project already published in a journal *ComTech: Computer, Mathematics, and Engineering Applications*; the title is *Benthix VR: A Virtual Reality Simulation Application to Preserve Traditional Benthik Game*. An important emphasis in previous journals is that traditional game is a cultural heritage that should preserve. Today, we cannot separate between family and technology, so it must be implemented into a family” (Setiawan et al., 2017); (Setiawan et al., 2018); (Kade, 2015), moreover computer games are becoming more realistic in a game, the actor is re-

sponsible for bringing the game character to life and providing realistic and believable motions (Akram et al., 2019; Feridun O. et al., 2015). Another important thing is, this journal is a final project that we made to be able to make a positive contribution to society, especially to families.

It does not necessarily mean that any moral or ethical issues might occur. It shows in-game content. Games and animation can perceive as very violent or disturbing and sometimes even immoral. It is then questionable who should be responsible for immoral scenes and which norms or ethical codes should be applied. Changes are the most important thing we must do to face the way of life (Murati, Ardita Ceka, 2016), the family as a cell acts only with love and respect and dominates the understanding, affection, sacrifice, and childcare (Rauch-Anderegg et al., 2019). The problem discussed in this research is the pattern of parent education to the child; how parents oversee the use of social media owned by children; and how gaming can be used as an educational pattern in improving family relationships. These three factors are at the core of today's problems, where the rapid development of information technology, should "force" parents to change the pattern of

education. The family and parents should flexibly follow these developments. Furthermore, this research uses the Johari window model which will then produce a formula $F = L.K^2$, and the final result is the seven stages of techno-family (the maturity level of family-technology). Each family will be able to assess whether the family has applied the educational patterns and how a virtual game like Benthix game, as a case study, can be used in improving communication and identification of each other in the family.

B. METHODS

This qualitative research used Johari window to analyze the data. Johari window model, introduced by Joseph Luth and Harrington Ingham, as “The ability of a person to understand himself either the behavior of his feelings and thoughts.” (Emeraldien et al., 2019). The first process in collecting data and problem analysis is: perform a survey to the family to find out how the pattern of education and how the family controls their children in social media. The next survey- the implementation of games into the family to improve communication and good relationships. The analysis also conducted through social media (such as Facebook, Twitter, Instagram, and YouTube) to observe a fami-

ly's social activity. Here we give the limit only to families we know on Facebook, Twitter, Instagram, and video activity via YouTube. The second process uses the Johari window model to classify the family into four categories: open techno-family, blind techno-family, hidden techno-family, and unknown techno-family. Therefore, it produces the formula $F=L.K^2$ (as shown in Figure 1), where F is family, L is leadership, and K is knowledge. Johari window has four parts:

Open	Blind
Hidden	Unknown

Figure 2.1 Johari Window model
Johari Window Model
(Brijendra Singh Yadav, 2017)

According to figure 1, (1) open: All aspects of the self, like the behavior of feelings and thoughts other than known by the self, is also known to others. If this area is widening, in the sense of being able to understand other people and others can understand ourselves there is good communication (someone knows himself and is known to others.) Meaning, we know very well about ourselves, know exactly what we feel ourselves, even self-control because we can control ourselves, besides, others know us, it is

because we are open people so can be known to others); (2) Blind: All aspects of behavior, feelings, and thoughts are known to others but not self-aware/unconscious. If the territory widened and urged other areas to experience communication difficulties. This region exists in every human being and is difficult to erase, except to reduce it by reflecting on norms and laws (we do not know ourselves but are known to others.) Because we are open, so known to others, but on the other hand we do not know ourselves. just because it confused itself and hard to adjust to ourselves so as not to know or we cannot master ourselves because not yet familiar with the changing circumstances and tend to make yourself feel tired so much more complaining on others and cause others to know us but we do not know ourselves); (3) Hidden: The ability that we have hidden is not known to others (we know ourselves but are not known to others) We may be too closed and tend to hide so that others do not know us But we can master ourselves and deeply understand because we can control ourselves, we feel that we do not need other people to help us, we may be keeping ourselves close to others), there

are two concepts: (a) Over Disclosed (too much-revealing something to be hidden as well); (b) Under Disclosed (to hide something to say); (4) Unknown: The most critical area in the communication of the inner aspect is neither self-knowledgeable nor the person (we do not know ourselves and others do not know us). From the four personalities above, the most dangerous is the number four personality because it is not known to anyone. This will cause a person difficult to interact with. The process of completing this research can be described as follows:

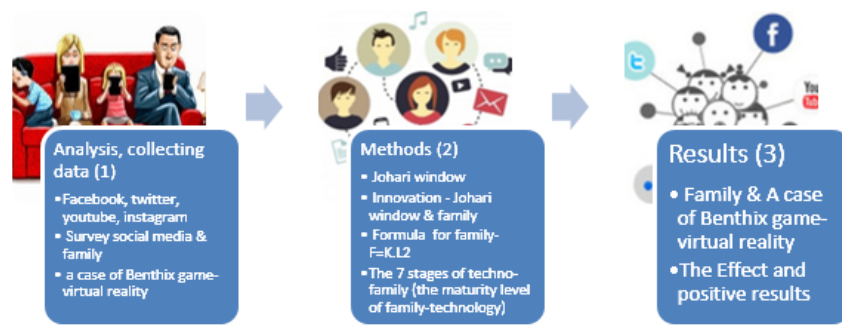


Figure 2.2 Johari A Process of $F=L.K^2$ & The Seven Stages of Techno-Family (The Maturity Level of Family Technology)

In the survey section, conducted with two separate surveys, the survey discusses the relationship between family and social media. This survey is conducted to find out the problems that occur and give a solution to solve the problems. The first survey, social media, and family, has several important questions, among others: (1) As a parent, do you have social media?; (2) Do you keep an eye on your child while using social media?; (3) Do you join your child's social media and keep an eye on your child's activities?; (4) Do you give definite knowledge about social media to your child? these questions are the core questions that must be answered so that the family can grow to the level of maturity that they should.

In the final process, an innovative concept is generated to measure the maturity level of the family and social media. It will be beneficial for familiarizing

the family, improve the family's weaknesses, and the strength of the family. This will be called the 7 stages of techno-family, which consists of 7 essential elements, namely: (1) Father; (2) Mother; (3) Children; (4) Culture; (5) Technology; (6) Communications; (7) Family Goals. Seven stages: Stages 1– Unknown Family; Stages 2– Hidden Family; Stages 3– Blind Family; Stages 4– Open Family; Stages 5– Good Family; Stages 6– Great Family; Stages 7– Techno-Family (Family & Technology).

C. RESULT AND DISCUSSION

In this section, the result will elaborate in 3 stages: (1) Survey & Results; (2) Johari Window Model; The 7 Stages of Techno Family (The Maturity Level) & Formula; (3) A Family-a case of Benthix Game-Virtual Reality. The framework of Johari window & innovation and new formula consists of the seven stages of techno-family. In the 7 stages section,

each family will be able to judge its own family, on which element the family still needs improvement and in which part of the family already has the power and is very good. In the stages section, the family will know at what level the family has reached the level of maturity. Moreover, a simulation table will be presented for the application of the seven stages, so that the seven stages can be understood

and applied to every family. The results of the survey data are as follows:

Survey Analysis

Survey - 70 participants

Question 1: As a parent, do you have social media?

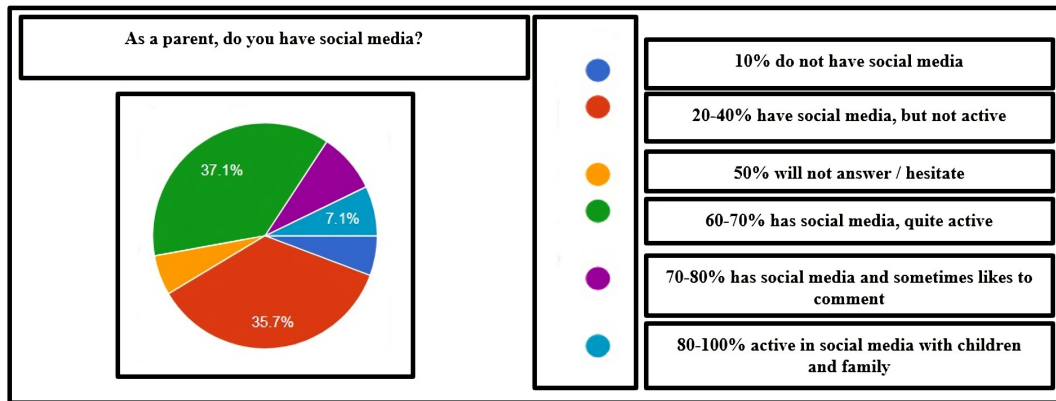


Figure 3.1 Question no 1-Surveys

In figure 3.1, we found that 37.1% of parents have social media and frequently using the social media; 35.7% of parents have social media and not frequently use the social media; 8.6% (purple)- 70-80% has social media and sometimes likes to comment; 10% (dark blue)- do not have social media; 5.7% (orange)- 50% will not answer/hesitate; 7.1% (blue)- 80-

100% active in social media with children and family. The researchers conclude that the parents are quite active in social media, few of them are inactive (Hiniker et al., 2016; Mullan, 2019; Carl, 2013)

Question-2: Do you keep an eye on your child while using social media?

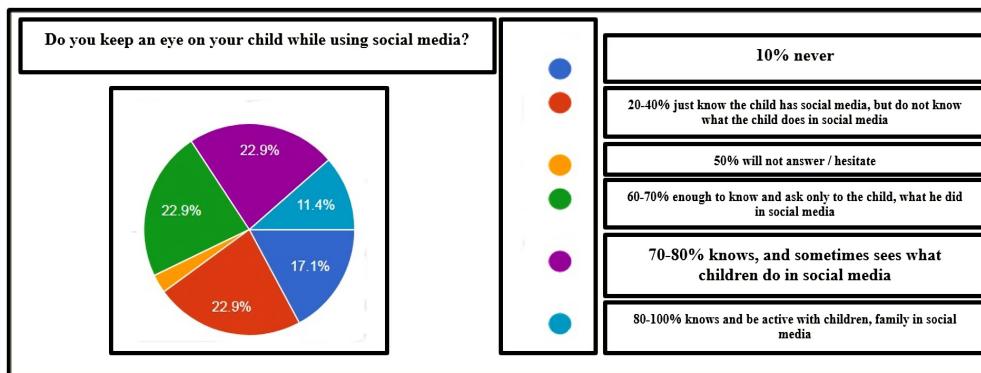


Figure 3.2 Question no 2-Surveys

In figure 3.2, we can see that there is a balance between red points-parents know their children use social media, but do not know what their children do in social media; green points-parents know enough what their child does in social media; purple points, parents sometimes see what their children do in social me-

dia; these three are at 22.9%, from which we can conclude that "parents still do not fully supervise and know what their children do in social media."

Question-3: Do you join your child's social media and keep an eye on your child's activities?

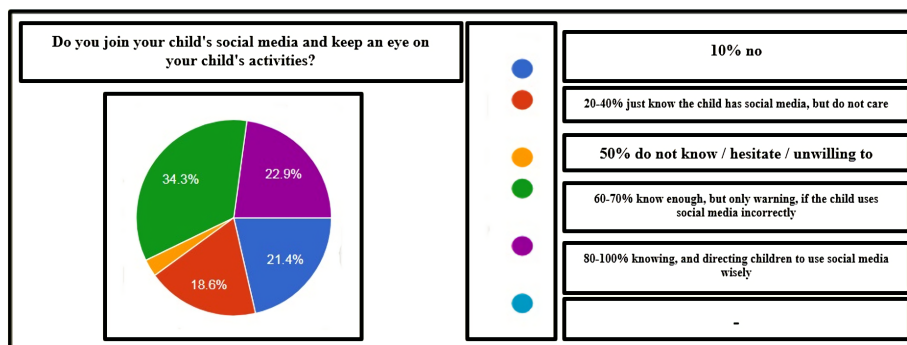


Figure 3.3 Question no 3-Surveys

Analysis of question 3, according to figure 3.3, there are three highest points, green points-parents only remind when children do bad things in social media-34.3%; purple points, parents direct their children to use social media well-22.9%; blue points-parents have absolutely no idea and fools with their children in the

use of social media-21.4%. This result can be concluded that "the parent is still not maximum in supervising counseling-teaching and guiding the child in using social media appropriately."

Question-4: Do you give positive knowledge about social media to your child?

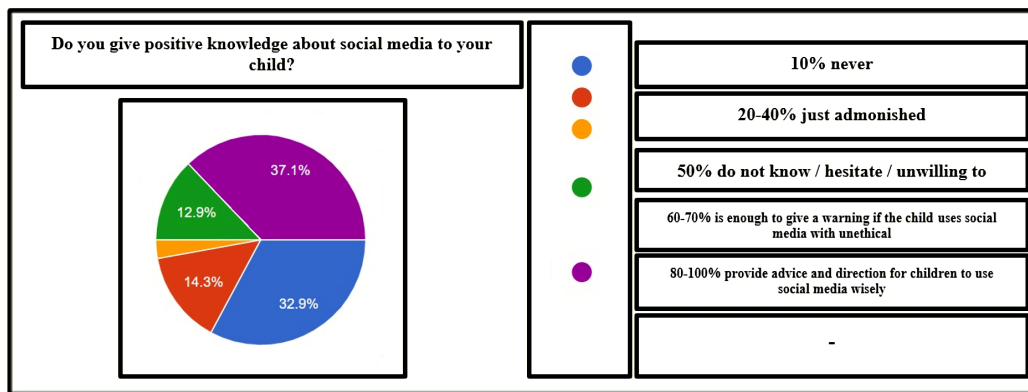


Figure 3.4 Question no 4-Surveys

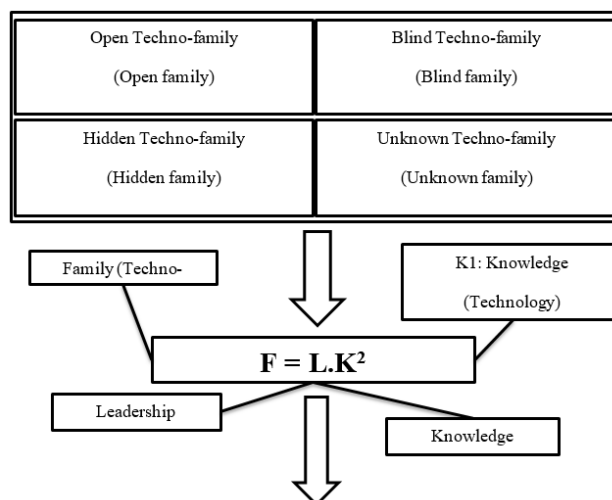
According to figure 4, there are two highest points, purple points parents directing children in using social media-37.1%; blue points, parents do not direct children in using social media-32.9%, from this result, we can conclude that "parents still have not fully led children in using social media positively."

The next discussion is about how we determine the level of each family so that the family can determine the level of maturity and improve better relationships to create compelling and efficient commu-

nication.

Johari window & techno-family

In this section we will create a framework and formula to be able to classify families in the context and content of new definitions, meaning that each family can be classified by the Johari window model into four family types and then the formula will be generated to incorporate the four types into an innovative formula:



Stages Indicator of techno family	Stages 1 (Unknown)	Stages 2 (Hidden)	Stages 3 (Blind)	Stages 4 (Open)	Stages 5 (Good)	Stages 6 (Great)	Stages 7 (Techno-family)
Father	Authoritarian	Emotional	Critical	Advisor	Consultant	Entrepreneurial	Techno-father
Mother	Depression	Stress	Mental pressure	Understanding	Advisor	Consultant	Techno-mother
Children	No control	Depression	Conflict	Understand what the parents want	Respecting parents	Example from parents	Techno-children
Culture	Crime - not open minded	Less-social	High level of selfishness	Comfort and protection	Positive and comfortable	Very respectful of parents	Wise
Technology	Technology misuse	Narcissistic	Narcissistic	Polite and ethical in using technology	Ethics and morals are upheld when using technology	Ethics and very polite in using technology	Carefully using technology
Communication	Rude and disrespectful, look polite but have the evil motivation	One way communications	Everything is about "me"	Looking for a solution to solve the problem	Provide opinions that have general knowledge	Speak politely	Be able to control yourself well
Family goals	There is no purpose in life	Survive for life	I get what or what we get	Children have a purpose in life	Purpose of life and contribution to the family	Purpose of life and contribution to family and society	Contribution & innovation to family and society

Figure 3.5 A Framework of Techno-Families

According to figure 7, in the first process, we will understand the big picture of the four types of techno-family, which will then produce a family formula, and the result is an explanation of 7 stages techno-family and simulation levels 1-3 and level 4 -7.

Phase 1 - 4 techno-family type (4 family types)

Open techno-family: (1) Can explain, choose and understand what is wanted clearly, honestly and directly (Strand et al., 2020); (2) Be responsible for what they think and feel and be able to express it adequately (Sorkkila & Aunola, 2020; Sorkkila & Aunola, 2020); (3) Respect each other, understand each other's weaknesses and strengths, then be able to communicate well to find solutions together in solving problems; (4) Have empathy and sympathy (Gross et al., 2020);

(5) Able to explain the solution and provide examples of problem-solving; (6) Families united with excellent relationships; (7) Has high ethics in words and deeds; (8) Using social media-technology wisely (Williams, 2015).

Blind techno-family: (1) Often feel anxious and painful to accept criticism; (2) Expect a reply from what he has done; (3) Has a reasonably excessive critical nature; (4) In solving problems, always have a principle into him, not trying to understand what is in the mind and heart; (5) A relationship is defined when giving something must get something.

Hidden techno-family: (1) Feel quickly stressed, disappointed and unable to resist temptation; (2) Does not value opinion, but always feels righteous; (3) Complaining, criticizing and being dissatisfied with what is owned now; (4)

Cannot solve the problem well, can engage in family violence and/or against others

Unknown techno-family: (1) Is not open-minded; (2) Violence, bitterness, dissatisfaction in life and feeling most knowing; (3) Utilizing others to gain profit; (4) Impolite and incapable of communicating well-like understanding what others mean and understanding sentences, communication always focus on how to criticize and vilify others, but there is never any positive solution and advice to get others can improve themselves.

Phase 2 - formula $F = L.K^2$ & a

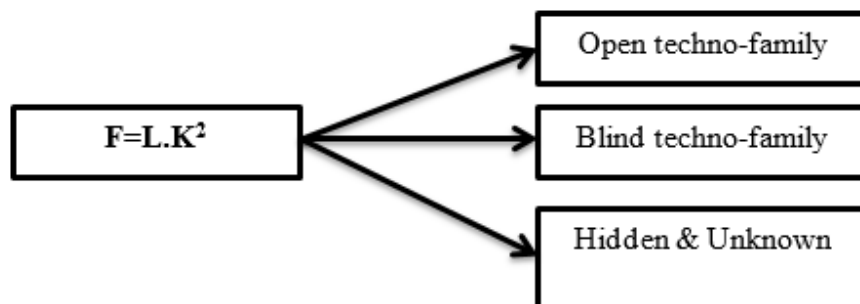


Figure 3.6 The Relationship Between The Formula $F=L.K^2$ and Four Techno-Family Types

According to figure 3.6: (1) Open techno-family: this family has excellent leadership and excellent knowledge and ability to use technology and social media well and true, furthermore, this family also have excellent communication; (2) Blind techno-family: This family must build good relationships between

Framework of Techno-families

After we have understood the big picture of the four techno-family types, the four types can be formulated into a special formula to unify the four types and what things are needed to change the family positively. The relationship of this formula and the four family types can be described as follows:

individuals within it by trying to listen well, what is meant, and how it can happen, not directly criticizing-using social media-technology more cautiously - because it prefers to display excessively, the knowledge of social media technology is quite good, but it is unfortunate to use it only to over-display; (3) Hidden &

unknown techno-family: (1) In desperate need of good leadership, within the family, leadership is regarded as strictly controlled, so there is no freedom at all in the family; (2) The use of technology-social media is highly abused, where there is no education and knowledge about ethical use of social-media technology, so this family always has problems; (3) There is no empathy, mutual understanding and just focusing on how to drop each other and no good communication. Innovations in digital media continue to change the way we think, act, and live. New media has taken communication to a higher interconnected and complex level (Wooley, 2013).

Phase 3- the seven stages of techno-family (the maturity level of techno-family)

The above formula explains that every family should have three important things: good leadership; high knowledge of technology and communication to get to know each other, called relationship and understanding. And when the formula is applied, it is seen, where the family is good and which families still have many shortcomings, therefore, this formula is expanded, not only in the open position of techno-family but must increase its stages, that is by adding 3 levels as a process to make a family can pro-

vide the right education. Moreover, the seven elements also need to be heeded, and this will be simulated. The table above which explains the elements and stages that are useful for assessing the family can be explained as follows:

Stages 1: (1) Father-authoritarian; (2) Mother-depression; (3) Children-no control; (4) Culture-Crime-not open-minded; (5) Technology-abuse; (6) Communication-rude and impolite-evil motivation; (7) Family goals - no purpose in life. In stages 1, we can see a family that has a minimal degree of freedom, where the authoritarian system applies to this family. It all governed by principles that may look very good-but bind freedom and have tough rules. It was causing the family to be depressed and out of control, not having an open mind and living only on his world, having a very rough motivation and communication-may look good, but basically rude and very disrespectful in speaking, behavior, and no purpose anything other than to himself.

Stages 2: (1) Father-emotional; (2) Mother-stress; (3) Children-depression; (4) One-way communication culture; (5) Technology-narcissists and crime; (6) One-way communication; (7) Family goals-that are important to survive. At this stage, high levels of anger and emotion are present in this family, stress, and

depression are experienced with a sufficiently massive level, communication lasts only one person and this is slightly different in stages 1, if the stages of one family have no freedom of expression at all, in stages 2 it can still communicate but keep returning to what is wanted selfishly and emotionally, because of this inconvenience, many of these families are narcissistic in social media, but this does not solve this family problem but adds another problem that may become more severe this family.

Stages 3: (1) Father-critical; (2) Mother-inner pressure; (3) Children-conflict; (4) High-level culture-egotism; (5) Technology-narcissistic and keen to be noticed; (6) Communication-everything is about "me"; (7) Family goals-this family gets what benefits. At this stage, this family is very critical, where there are criticism and words that insinuate and cornering and even demand excessive perfection, what is always wrong and cause emotions increased, stress, depression, and even a dead-end in communication. This type of family always focuses on the benefits and what can be gained if giving something, on the other hand, negative criticism is thrown in to intimidate and manipulate.

Stages 4: (1) Father-advisor; (2) Mother-understanding; (3) Children-

understand what the parents want; (4) Culture-comfort and protection; (5) Technology-polite and ethical in the use of technology; (6) Communication-finding solutions to solve problems; (7) Family goals-children have a purpose in life. At this stage, the family has a level of patience and seeks to understand each other, learns to understand the strengths and weaknesses that exist within each other, sit together to solve problems and find the best solution, have a purpose in life so that children get the best in education and get a good job in the future.

Stages 5: (1) Father-consultant; (2) Mother-advisors; (3) Children-respect for parents; (4) Culture-positive and comfortable; (5) Technology-ethics and morals are upheld in the use of technology; (6) Communication-providing a knowledgeable opinion; (7) Family goals-the purpose of life and contribution to the family. At this stage, parents play an essential role as a consultant, meaning that parents have enough knowledge in providing solutions and real examples that occur to their children. Her children respect the parents for their knowledge, the moral-ethical level is taught very well in this family, they try to keep their proper name, argue elegantly and professionally, the purpose

of this family is to give the best for family and society by taking good actions-such as donating to orphanages, nursing homes and so on.

Stages 6: (1) Father-entrepreneurial; (2) Mother-consultants; (3) Parental role models; (4) Culture-deeply respect for parents; (5) Technology-ethical-moral and very polite in using technology; (6) Communication-speaking politely; (7) Family goals-the purpose of life and contribution to family and society. At this stage, families act as entrepreneurs, in the sense of not entrepreneurs who have significant capital, where the family has a high resistance to the problem, the problems contained in the family can always be solved with excellent communication, mutual respect for opinions and judgments respectively, possessing high levels of courtesy, ethics and moral well-being with their weaknesses and strengths, this family has a goal that can change the environment around it that contributes to the family and helps the community. For example, organize activities that can add to each other's relationships, exchange ideas and hobbies so that this may create new opportunities for the family in the future (Eynde et al., 2020; Bernardi & Comolli, 2019; Suter, 2016).

Stages 7: (1) Father-techno-father;

(2) Mother-techno-mother; (3) Children-techno-children; (4) Culture-wise; (5) Technology-be careful in using technology; (6) Communication-able to control themselves well; (7) Family goals -contribution and innovation to family and society. At this stage the family has a general and specialized knowledge in educating, where it is wise in solving problems making decisions and giving and producing solutions, this family has a massive contribution to the family by creating and producing innovations in specific areas so that people can benefit positively.

Simulation 1- family level 1-3 & 4-7

Case study & analysis part 1

A family has a father who has a tough rule in it, and a mother who understands the needs of her children. Fathers never care about their children's most important needs: the need to be listened to and communication, the children, communicate more with the mother more often. Fathers never pay attention to what their children do when using social media and mothers do not have sufficient knowledge of technology, children have a poor attitude and narcissistic environment in social media causing problems in the family, no family management which is good and contains only negative criticism and sayings but there are positive

things that come from a mother. This case can be illustrated in the following table:

Table 3.1 The 7S of Techno-Family “The Maturity Level” Case Study 1

Table Header	Stages 1	Stages 2	Stages 3	Stages 4	Stages 5	Stages 6	Stages 7
Father	1	2	3				
Mother			3	4			
Children		2	3				
Culture			3				
Technology			3				
Communications	1	2	3				
Family Goals			3	4			

According to table 3.1, here we can see that the position of the father is at level 1-3, mother level 3-4, children level 2 - 3, culture level 3, level 3 technology; communication level 1-3, family goals level 3-4.

Case study & analysis part 2

A father in this family has a good job and education, which although the sentence is somewhat critical but on the other hand able to lead the family and have the knowledge and advice that can be heard. In the mother's position, the moth-

er plays a leader as well for her children, has a deep understanding of the needs of the family, especially the children, the ability to advise. Children in this family have a good environment and use social media carefully and wisely. The purpose of this family is to contribute to his family and make some innovations in the activities to enhance a good relationship with other families. This case can be illustrated in the following table:

Table 3.2 The 7S of Techno-Family “The Maturity Level” Case Study 2

Table Header	Stages 1	Stages 2	Stages 3	Stages 4	Stages 5	Stages 6	Stages 7
Father			3	4	5	6	7
Mother			3	4	5		
Children			3	4	5	6	
Culture				4	5	6	7
Technology				4	5	6	7
Communications			3	4	5	6	7
Family Goals					5	6	7

According to table 3.2, the father is at level 3-7, mother level 3-5, children level 3-6, culture level 4-7, technology level 4-7, communications level 3-7, family goals level 6-7.

From this simulation, we can understand that the family must have a closer relationship regarding communication and personal development, therefore, we found a solution to solve this problem. The solution is to apply the cultural heritage contained in their respective areas by applying traditional games to the family, for families in levels 1-3 can be applied manually to improve the first communication, and for families at level 4-7 can be applied traditional games with virtual reality. Examples of traditional games that are applied are the Benthix game, which is a game that can be played with family (Setiawan et al., 2018). Once we determine the maturity level of a family, here we apply Benthix games to improve communication levels and relationships

within the family.

Family-A case of Benthix game-virtual reality

In this section, virtual reality and/or Benthix games manually can be used as a way to foster communication between families. At the end of the results, it will be explained, first of all, virtual reality game benefits in general and will then explain the benefits of Benthix games, manually and vitality reality to be able to make a family increase its level and maturity level. We need to understand that Virtual reality consists of two words namely virtual and reality which means virtual and reality. Virtual reality is a technology that can interact with an environment that is simulated by a computer. In reality, virtual reality is used to describe the three-dimensional environment generated by a computer and can interact with a person (Lin et al., 2016). Furthermore, virtual reality has several positive things, among others: (1) Stimulation of

learning and stimulation are two important things in generating experience (Pantelidis, 2010); (2) Participants who choose to use VR can be more focused because with this application we are not bothered by things around us; (3) Games can help in a more cooperative and enthusiastic nature (Parisod et al., 2014); (4) Gameplay may also influence psychological, cognitive, social and health behavior-related outcomes; (5) This situation can produce a change in life, where the way we communicate will increase

(Sanabria, Ana Cepeda, 2015); (6) Some studies show that different family lives and cycles within the family are very important to be considered (Carvalho & Fonseca, 2016); (7) Educational development is influenced by families (Plowman, 2014; Medved, 2016).

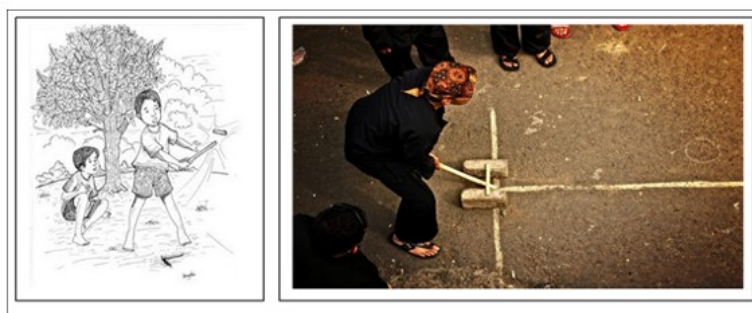


Figure 3.7 Benthix Games-Traditional

In the past, the game is known as Patil catfish, gatrik or Benthix is a lot of children played during a school break or after school. Very popular in villages in Yogyakarta and Central Java in general because this game is fun besides being played by some people who are divided into two groups

Is also very cheap. Then why is called Benthix? It is not known who created the name. It is said that the word

'Benthix' implies a collision. The sound of 'think' is produced by the impact of game equipment in the form of parent stems and saplings made of wood or bamboo. Until then the bamboo game is popular with the title Benthix.

How to Make Benthix

For the rod not to be easily broken when used, only reliable and robust structured wood may be used, such as guava wood, mango wood, "Klengkeng"

wood, “Kemuning” wood, or the like. The branch of the tree is then cut into two halves with a length of 30 cm and 10 cm respectively. The bark is carefully exfoliated using a knife to make both surfaces stick finer.

How to Play Benthix

First, make “Luwokan” which is a kind of hole along the stem 10 cm, width 3 cm, 5 cm deep. Benthik game begins with “hongpimpa”. Inevitably who wins, then he will get his first turn. Meanwhile, the losers will inevitably have to guard. The player attaches a short stick over the slipper (“Luwokan”) transversely. Then, this stick should be pushed hard with the help of long sticks to soar as far as possible. In Javanese, this is called “nyuthat”. If the opponent managed to catch the short stick that soar, then he will get points. The opposing party will usually try desperately to catch a short stick to steal points before getting a turn to play. The magnitude of the points is determined by the way the opponent catches the short stick; 10 points to catch with two hands, 25 points to catch with the

right hand, and 50 points when successfully caught with the left hand. Then, the player is asked to put a long stick over the hole with a cross position. Meanwhile, the opponent is in charge of throwing the short stick that has been thrown earlier towards the long stick. When a short stick is about or touches a long stick, then the turn of play will switch to the opposing party.

The second stage of the Benthik game is “Namplek”. At this stage, full concentration is required. The player must throw a short stick in the air first, then hit as hard as possible with a long stick as far as possible. The opponent of the guard must throw a short stick at the player. Here, the player's dexterity is tested whether it can hit back a short stick or not. The calculation of points for the player is done from where the short stick fell into the hole using a long stick.

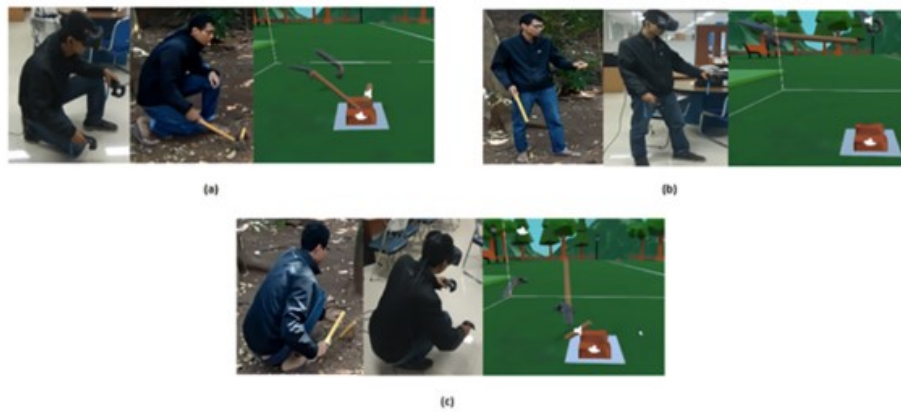


Figure 3.8 Comparasions of traditional Game play and Virtual Reality-Game Play at (a) First Round, (b) Second Round, and (c) Third Round

The benefits of application of virtual reality-game Benthix into the family: (1) Benthix game can train physical movement so that the family from the health side; (2) The game requires cooperation

to win and can increase the level of understanding with each other; (3) Increase empathy in the family. Of these three things, game and Techno-family Benthix relationships can be illustrated below:

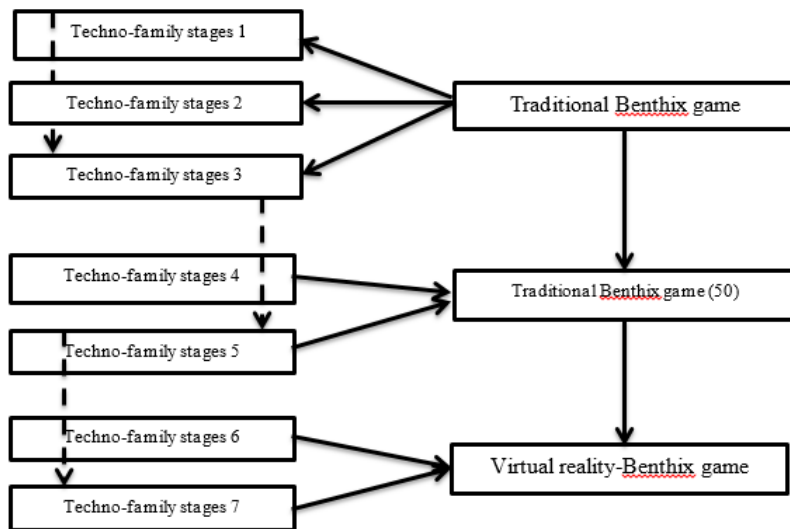


Figure 3.9 The implementation of Benthix game-virtual reality & techno-family stages 1-7

According to figure 3.9, techno-family stages, 1-3 can start first by playing Benthix games manually. Why

should this be applied first manually? There are some essential reasons here. First, at the level 1 family position, we

know that no communication is not very good, by playing Benthix games; it will be built the habit to cooperate and early communication that may be able to open the door early in communication. Second, in the 2nd level family, this game Benthix can be used in self-control, where Benthix game also requires patience in play, so this game is very suitable to train emotional control and improve the level of patience. Third, in a level 3 family, Benthix games will be able to help this type of family not to easily criticize imperfections, in this game every individual in the family will find that imperfections are healthy, so this game Benthix will significantly help this type of family in limiting excessive criticism. From figure 7, we can also see that one of the most critical reasons here is why this Benthix game should be done manually first, especially for the 1-3 level families. The justification is this type of family requires first direct interaction to create communication early as bridges improve mutual understanding. The other justification is the communication, and emotional control can be done, and the opening of the conversation from the heart to heart, the level 1 family, can go to level 3, which means a leap is quite confident, although there are still imperfections, this can still be tolerated within

limits, to some extent. Furthermore, families who are already in level 3, can go to level 5, this is because the critical level owned by the family has been reduced, and this family has started to learn in mutual respect to each other through the Benthix game that is done. Visual tools and motion detection sensors can improve an excellent response (Nwaneri, 2017).

In family levels 4 and 5, Benthix games can be done in two ways, namely manually and virtual. Benthix can be explained as follows: families at level 4 needs to strengthen each other's cohesion with the family further and improve communication more effectively so that families can become more understanding and develop shared goals in the future. Next, VR-Benthix games can also be applied at levels 4 and 5, to further improve knowledge of information technology, meaning that each family must know how to use technology and also apply it in life, VR-Benthix game one of the game areas that can improve that so that parents and children will be kept in balance. Level 5 families can go straight to level 7, with an important note that every member of the family understands what positive things will be gained when understanding the technology and has happened an excellent communication and

know each other's strengths and weaknesses are in that family. The final stage of application of VR-Benthix game is at levels 6 and 7, families at this level have understood and can apply the sophistication of VR technology into their family and able to build a family relationship based on information technology and use it to be able to improve the positive things as well as a very decisive future goal.

After playing VR Benthik, there was an increase in levels in the family regarding communication and empathy for others. This also affects the level of communication on social media which can then have a positive impact on others.

Relationship Between Family-Game-Social media

Point A is the survey data, point B is the relationship between family and social media, and classifies it, and point C is the relationship between family and virtual game. From these three points, can be generated a relationship between family and social media, which can be described as follows:



Figure 3.10 Family-Game-Social Media

According to figure 3.10, there are three processes, the first-the relationship between family and technology, this section has been described in point B; Second-relationship between family and

games, this section has been explained in point C. in part 3, that is family, and social media can be explained as follows:

First, we must classify the family, what is the type and what level. This process

should not be skipped as this will have an impact on the family in many ways, as in the seven stages table (the maturity level). Parents can help their children in providing easy access to information, but here needs parental supervision (Lamberton et al., 2016).

Secondly, once we know the family, what level and type, then the family to increase its level can do the game activity, which is applied to the family. Parents can check the use of social media by their children. Furthermore, parents can explain how to use social media positively at dinner, watch television with family, and at certain activities (Villegas, 2012; De & Machado, 2020; Farman, 2015). Moreover, Social media can improve a better standard of living for children (brandt & feehan, 2015).

Third, after an increase in levels, two important things can be generated: (1) Communication; (2) Social media. Communication represents the family already has good internal communication so that it can create a definite character and increase empathy among families (Bernal-Martínez-de-Soria et al., 2011; Maunah, 2019; Scharp & Thomas, 2016). Social media in a family that already has a definite character and good empathy will be able to impact the way they communicate in social media (Noland, 2017).

They will have more restrictions on what should be done in social media. According to Chin-Hsi Lin (2016): It is related to family education, and this will also be able to create the impact of cultural change, not only in the social media environment but within the community in general (Lin et al., 2016).

D. CONCLUSION

Techno-family is a family that is influenced by two important things: socio and media, where these two factors form a family in which, character-mindset and decisions is influenced by social media.

Benthix game is a traditional local game in Indonesia that can be applied to various types of families and can develop a more empathetic form of social level and build long-term goals for the family.

VR Benthix game can be applied to techno-family so that families have knowledge of information technology and can form good communication between families. In subsequent research, VR can also be applied to other traditional games.

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