



## INTENSITY OF USE MEDIA RELATIONS INTERACTIVE (COMPUTER GAME ONLINE) MOTIVATION AND LEARNING

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### **Abstract**

*Interactive media can cause negative things for teenagers, including affect motivation and aggressive behavior. Subjects were student of SMP-1 range, 11-14 years of age, male gender. The experience of playing computer games online  $\pm$  1 year, high school parent education, parental income  $\leq$  Rp. 1.500.000,- / month, student rank 1-10 in the classroom and the subject of 40 people. Data analysis technique used is the product moment correlation analysis technique. Measuring instruments used in this research is by using questionnaires. Data collection procedures done in three phases: preparation, data collection phase, the normality test to determine whether the normal distribution of data, linearity test to find out the degree of relationship between the independent variables on the dependent variable and statistical analysis using product moment correlation analysis technique. The survey results revealed that the intensity of use computer games online contributes very significantly to the tendency of aggressive behavior by the coefficient  $r_{xy} = 0.725$  where  $p < 0.01$  means that the higher the intensity of use of computer games the higher the aggressive behavior and vice versa. Then the intensity of the use of computer games contributed  $r_{xy} = -0.545$  on motivation to learn and vice versa. The researchers suggest is the need to increase the understanding and knowledge of the benefits from the use of computer games online, the need to give attention the teenager against her social behavior that teenagers are not the wrong way. The need for watchdogs against teenagers in the use of interactive media.*

**Key Words:** *Intensity of use media interaktif, Computer games, motivation to learn, aggressive behavior.*



## **A. Introduction**

Society as a place for adolescents to grow and develop gives a significant influence for their development. The hope is to shape their personality and future. This is because adolescents have become part of a wider community, so it is necessary to understand all forms of problems that affect it. In the current era of globalization, increasingly rapid technological developments cannot be avoided anymore. Teenagers are now developing in a social environment that is experiencing rapid technological change. One of the latest revolutions of technology is the development of computer use introduced in 1980 (Rice, 2002).

The main reason for the increasing use of computers is because of internet facilities. Most internet use is teenagers by 23% (Rice, 2002). According to Rice, the reason they use the internet is to get information, send e-mail, or other things. The development of computers has also increased, namely the availability of games available both online and offline, increasing interest in teenagers towards this technology. According to a national survey by the National Institute on Media the Family (NIMF), 92% of children and adolescents aged 2-17 years play games. More than two decades of video games have been introduced to children and developed quite rapidly (Wartella 2000). With various developments that exist for computers, computers are also referred to as interactive media.

Media is understood as an intermediary or channel in the communication process, everything in the form of a physical or a tool for communicating messages. The form of media can be television, printed materials and computers. Computers as one part of interactive media is a means to process data, a network system to connect one computer to another computer in accordance with the needs and technology of telecommunications used so that it can be spread and accessed globally. Internet and digital games or computer games as part of interactive media are the dominant activities for children and adolescents today. Interactive media has an important role in the field of education and social interaction (Wartella, 2000). This increase in the use of interactive media can affect various aspects of a child's development. As revealed by



Bandura, Vgotsky. Gardner and Kolb (in Vandeventer, 1997) which states that individuals can walk in various ways, which are different for each individual and are tied to social and cultural experience.

The high interest of children and adolescents in the use of computers can be seen based on a survey conducted by the Annenberg Public Policy Center which states that children aged 8-17 years in America, about 60% have computers, 61% can access the internet. This data increased compared to 1996 (Turow, 1999).

Seeing the magnitude of interest and intensity of interactive use among adolescents must be prepared to face new things along with existing developments. Since early adolescence must begin to recognize the benefits of using computers. This is very important considering the development of computers will give birth to the effects of both positive and negative influences on children's development. As it is known that early developments in childhood will determine development in later periods.

According to Hurlock (1986) the beginning of the individual's developmental period becomes very important because: First, learning outcomes and experience increasingly play a dominant role in development with increasing age of the child and directed towards good adjustment. Good guidance from parents is needed to be directed to the right things. Second, the initial basis will develop into a habitual pattern that will affect the personal and social adjustment of the child. Third, children will let go of their unwelcome traits by increasing the age of those who are not liked by increasing their age. Fourth, sometimes changes in what are taught are sometimes desired, the sooner the changes are made, the child will be sensitive to the changes.

Interactive media can act as part of education if it can be directed towards a positive direction. Conversely, interactive media can also cause negative things for teenagers. Among them affect the motivation to learn and aggressive behavior.



## **Oline Computer Games**

### **Characteristics of Interactive Games (Computer Game Online)**

Interactive media has its own characteristics including character identification, active relationships, sensory motor exercises. control of decisions and consequences. Response determines feedback. These characteristics not only facilitate the learning process and sources of information, but also facilitate learning that contains violence (Wartella, 2006).

These characteristics have a strong influence on interactive games with aggressive behavior. First, character identification is more visible in interactive games players. Individuals who play games will not choose characters that suit themselves but will choose certain characters. Second, individuals who play games are active participants and control his actions. Success or failure of individuals in playing, directing behavior according to what is produced. Third, there is reinforcement or reinforcement of the aggressive behavior that results from the games. Reinforcement can be a number of points (values), or increase at a certain level (Dill & Till in Wartella, 2000).

The The Emperor Family organization determined the facts based on reports from Kids & Media @ The Mellenium that children today are very interested in interactive media (Wartella, et al, 2000). Increasing activities include playing video games, browsing the internet and communicating with virtual friends through chat rooms. It is known that children spend time using this interactive media at school, with friends or family, so intensive attention is needed to understand how negative influences affect their development (Wartella et al., 2000).

Estimates of computer use based on recent studies show 65% of boys and 57% of girls play computers including computer games between 1 and 6 hours (Cesarone. 1998). Based on the statistical results of American teenagers aged between 8-13 years spend time playing computer games 7.5 hours a week. This was strengthened through the results of the Pie Cooperative Institutional Research Program (1998, 1999) found in 1998, 13.3 \$ boys spent 6-20 hours per week, then in 1991 increased to 14.8% (Anderseon & Bushman, 2001). The intensity of the use



of interactive media is quite high based on research conducted by Walsh, et al (2004) which states, the young women play games on average 13 hours per week. The results of Funk (1993) 's study identified that more than 90% of boys and 60% of girls spend time playing computers or computer games, which are educational in less than 3%.

Surveys conducted on parents in Annenberg state that their children between the ages of 2-17 years use computers at home for about 1 hour a day, including playing games (Stanger & Gridina, 1999 in Subrahmanyam, 2001). Based on the Home Net Study between 1995-1998, teenagers accessing the internet ranged from 3 hours per week and more than 10% used it around 16 hours per week. Usually the internet is used for school purposes, communicating with friends, looking for information about their interests and hobbies.

## **B. Research Methods**

The truth of the results and conclusions of a study is largely determined by the method used. A study will give the correct results and conclusions if the research uses the right method. This chapter will describe the identification of population and sample research variables. Operational definitions of variables, data collection instruments, data collection procedures, validation tests and reliability of research instruments and data analysis methods.

### **Identification of Research Variables**

#### 1. Free Variables (Independent)

The intensity of the use of interactive media (computer games online).

#### 2. Dependent Variables (Dependent)

- a. Grade VII students
- b. Aggressive behavior

#### 3. Control Variables

- a. Grade VII students
- b. Male gender)
- c. Experience playing computer games online (1 year)
- d. Education of parents (high school)



e. Parent income (middle to lower or p Rp. 1.5 million / month)

### **Samples**

Determination of the sample above is done with theoretical considerations, intended to obtain a maximum degree of statistical accuracy.

The characteristics of the subject of this study were class VII students, ages 11-14 years, male gender, 1 year online gaming experience. Education for high school parents and income for middle-aged parents ( $\leq$  = 1,500 / month). The subjects of this study were class VII students as many as 40 people (based on ranks 1-10, 11 students playing duration 420 minutes, 22 students duration 240 minutes, and 7 students playing 1,260 minutes.

### **Data Collection Instruments**

The measuring instrument used in this study is to use the questionnaire method.

### **C. Research Results and Discussion**

Based on the results of this study, it is known that there is a very significant negative relationship between the intensity of the use of online gaming computers and learning motivation.

The results of this study are in accordance with the previous theory that motivation to learn is usually influenced by the arrival of outside individuals such as family, school, playing environment and society. Likewise according to Shah (2003), factors outside of individuals that influence learning motivation are social environmental factors, including home and community.

From this study, it is known that play and community environmental factors influence student learning motivation.

In addition, from this study, it is also proven that there is a very significant influence between the use of online computer game activities and the tendency of aggressive behavior.



## **D. Conclusion**

Based on the results of data analysis and testing of hypotheses as described in chapter IV that it can be concluded that:

1. If the intensity of online computer game use is low then aggressive behavior will be lower (reduced)
2. Individuals who have high intensity of online computer game usage will result in low learning motivation. Conversely, if the intensity of the use of online computer games is low, the learning motivation is high.

## **Suggestions**

1. For students
  - a. The need to increase understanding and knowledge about the benefits of using interactive media that can be obtained through education in schools, magazines, or other print media.
  - b. The need for developing interest in interactive media so that the future will increase confidence in the ability possessed in operating the computer.

## **For parents**

- a. The need to give attention to children or adolescents to their social environment so that the teenager does not go wrong
- b. The need for supervision of adolescents in the use of interactive media.  
It would be better if children play computers under the supervision of parents, such as playing at home



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