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Empathy Microblog

An Online Tool for Training and Experiencing Empathy

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Abstract: Empathy Online Tool is a tool in the form of online media that is dedicated to being able to understand a person's emotions before and after accessing games and storytelling objects. This study aims to analyse user experience, especially empathy experience in determining the type of media or tool that can stimulate someone's empathy more after accessing an object. The research method used is a quantitative method using the IRI (Interpersonal Reactivity Index) instrument and a qualitative method using an assessment of microblogs written by users. This research produces additional features to the empathy online tool. The assessment in this study consisted of five indicators, namely Affective Reflection, Emotion Wheel, Microblog (Assessor 1 and 2), and IRI Increase. Features have been added in the form of Slider Range and Geneva Emotion Wheel by adding source code to the previously designed program code. Based on the results of the conclusions in this study, men are more stimulated by games, while women are more stimulated by storytelling. The percentage results of the study show that 60% of participants have the same level of empathy experience through playing the game 'Path Out' and accessing storytelling 'Brothers Across Borders'.

Keywords: microblog, online tool, empathy experiencing.

1 INTRODUCTION

Emotional intelligence is something that cannot be inherited, but can be trained and developed in a person through education (Shapiro, 1997). One of the elements of emotional intelligence is empathy. Empathy which means being able to feel the feelings of other people, especially when other people are in an emotional state, feeling sympathetic, and trying to solve a problem from someone else's perspective. Empathy appears at the age of two or three years and this empath does not have unique facial expressions like other emotions. Empathic behaviour itself can be influenced by the perspective of each individual, gender, intelligence, experience, attitude, discipline, and the existence of bonds. To develop children's empathy, the learning methods used vary widely, including social media, video games, and even interactive storytelling (Pratiwi E., 2019). Ossy, et al. (2020), state that video games in general can potentially generate empathy. They conducted a preliminary study on the effects of playing prosocial video games. In particular, the level of empathy and its correlation with perceived present aspects have been examined based on several intervention scenarios. Involvement in prosocial video games can positively support increased levels of empathy. The recognized positive correlation between perceived levels of empathy provides room for further research to investigate how story, type, and game elements can support feelings of empathy. Apart from video games, interactive storytelling can also develop children's empathic abilities as stated (Anggraini, 2020) that there are several methods of learning in education, one of which is the method of learning through storytelling which is often called storytelling.

This research explores user experience analysis of the impact between video games and interactive storytelling to stimulate someone's empathy using an empathy online tool as a tool in the form of online media that is dedicated to be able to understand the emotions (a feeling and thought) of a user from before to after accessing video games media objects and interactive storytelling. The aim of this research is to provide tools that can be used for learning and stimulate empathic experiences, as well as explore better media and information technology. Thus, the results can be a reference for the development of appropriate media and information technology to increase empathy.

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2 MATERIALS AND METHODS

This section can also entitle Models or Experiments. It is also possible for a manuscript to have both Theory and Experiment sections at the same time if necessary.

This section can also contain quotes from literature that are considered important to be compared or used in the results and discussion sections, if they cannot be expressed in other forms (e.g., equations, figures, tables).

A manuscript may consist of an Introduction, Theory (and/or Experiment, and/or Model, and/or method), Results and discussion sections, and Conclusions. This is followed by the Acknowledgments (if any) and Reference sections. Each subsection should have different contents.

2.1. Material

In this study, the objects to be used are the video games Path Out and interactive storytelling Brother Across Border. Both of these objects are based on the true story of a person who tells the situation of his country that was affected by the occupation of his country Syria. For Path Out video games, the game display used is 2D (two dimensions), while storytelling uses a real appearance in the form of a video with real people in it. Both of these objects are used in this study because the plot is in the form of a person's true story so that it can become a medium that can change a person's feelings and thoughts in the situations that occur there. Participants who access video games or storytelling objects will have their data analysed using several assessment instruments, such as Interpersonal Reactivity Index (IRI) Questioner.

1. IRI (Interpersonal Reactivity Index)

According to Mark H. Davis (1980), the Interpersonal Reactivity Index is a measure of dispositional empathy (internal factors that influence a person's behaviour) which takes the starting point of the idea that empathy consists of a set of separate but related constructs. The IRI contains four different subscales for each question, each addressing a separate aspect of empathy, including:

a. Perspective Taking (PT) Scale

Measures the reported tendency to take a person's psychological viewpoint in their daily life. The Perspective Taking Scale (PT) is someone who can understand other people's feelings and thoughts from another person's point of view.

b. Empathic Concern Scale (EC)

Assess the tendency to experience feelings of sympathy and compassion for others who are not as fortunate. The Empathy Concern Scale (EC) is someone who has an attitude of feeling sympathy, pity, and cares for someone who is experiencing distress.

c. Personal Distress (PD) Scale

Touching the tendency to experience pressure and discomfort in response to extreme pressure on others. The Personal Distress Scale (PD) is a person's attitude towards himself with feelings of anxiety and anxiety in interpersonal situations. This anxiety can make him want to get away from the situation in order to reduce the tension he feels. If someone has high Personal Distress, then that person can have low empathy.

d. Fantasy Scale (FS)

Measures the tendency to imaginatively shift oneself into fictional situations. The Fantasy Scale (FS) is someone who can try to change himself imaginatively into someone who experiences feelings of discomfort with the event of the object situation that occurs, this can lead to behaviour wanting to help.

Table 1. Interpersonal Reactivity Index (IRI) Questionnaire

No	Item
1.	*I daydream and fantasize, with some regularity, about things that might happen to me.* (FS)
2.	*I often have tender, concerned feelings for people less fortunate than me.* (EC)
3.	*I sometimes find it difficult to see things from the "other guy's" point of view.* (-PT)
4.	*Sometimes I don't feel very sorry for other people when they are having problems.* (-EC)
5.	*I really get involved with the feelings of the characters in a novel.* (FS)
6.	*In emergency situations, I feel apprehensive and ill-at-ease.* (PD)
7.	*I am usually objective when I watch a movie or play, and I don't often get completely caught up in it.* (-FS)
8.	*I try to look at everybody's side of a disagreement before I make a decision.* (PT)
9.	*When I see someone being taken advantage of, I feel kind of protective towards them.* (EC)
10.	*I sometimes feel helpless when I am in the middle of a very emotional situation.* (PD)

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11.	*I sometimes try to understand my friends better by imagining how things look from their perspective.* (PT)
12.	*Becoming extremely involved in a good book or movie is somewhat rare for me.* (-FS)
13.	*When I see someone get hurt, I tend to remain calm.* (-PD)
14.	*Other people's misfortunes do not usually disturb me a great deal.* (-EC)
15.	*If I'm sure I'm right about something, I don't waste much time listening to other people's arguments.* (-PT)
16.	*After seeing a play or movie, I have felt as though I were one of the characters.* (FS)
17.	*Being in a tense emotional situation scares me.* (PD)
18.	*When I see someone being treated unfairly, I sometimes don't feel very much pity for them.* (-EC)
19.	*I am usually pretty effective in dealing with emergencies.* (-PD)
20.	*I am often quite touched by things that I see happen.* (EC)
21.	*I believe that there are two sides to every question and try to look at them both.* (PT)
22.	*I would describe myself as a pretty soft-hearted person.* (EC)
23.	*When I watch a good movie, I can very easily put myself in the place of a leading character.* (FS)
24.	*I tend to lose control during emergencies.* (PD)
25.	*When I'm upset at someone, I usually try to "put myself in his shoes" for a while.* (PT)
26.	*When I am reading an interesting story or novel, I imagine how I would feel if the events in the story were happening to me.* (FS)
27.	*When I see someone who badly needs help in an emergency, I go to pieces.* (PD)
28.	*Before criticising somebody, I try to imagine how I would feel if I were in their place.* (PT)

2. Method

2.1 Procedure

Here's the experimental procedure: 1) Participants are given a briefing about the technical implementation of the experiment to be carried out; 2) Participants access the link: www.empathyonline.site.; 3) Participants choose the Questioners navbar to fill in the IRI; 4) After completing the pretest, participants shift 3 ranges of slides on Affective Reflection according to what the user feels before accessing Games or Storytelling; 5) Participants are asked to choose one of the emotional levels on the Emotion Wheel that describes the user's feelings before accessing Games and Storytelling; 6) In filling out the Microblog, participants are expected to write down their feelings, emotions and thoughts before accessing Games and Storytelling; 7) Participants are welcome to start playing Path Out video games or access interactive storytelling Brother Across Borders until it's finished; 8) After completing the game, the participants fill in the time, NPM, Affective Reflection (slider range), Emotion Wheel, and write a Microblog according to what participants feel and think after accessing Games and Storytelling. Then click Submit; 9) After doing all the previous series, participants filled out the IRI posttest.

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3 RESULTS

3.1. EMPATHY ONLINE TOOL

The Empathy Online Tool contains data in the form of Affective Reflection (3 slider ranges), Emotion Wheel, and Field Microblog.
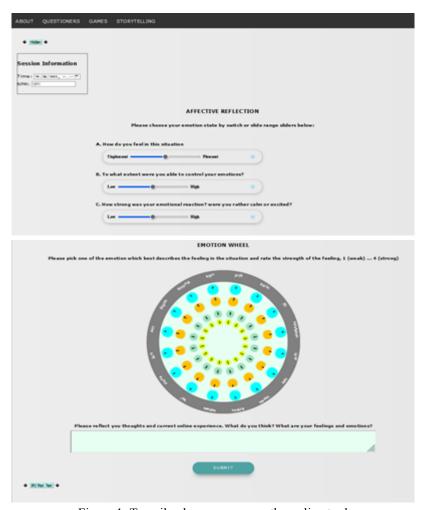
Figure 1. Tampilan homepage empathy online tool

a. Affective Reflection (slider range)
Affective Reflection has 3 slider ranges about how the user feels, how far the user can control his emotions, and how strong the user's emotional reaction is. Affective Reflection is filled according to the user's emotions by shifting the range of slides, where each has a range of 0.1 with a minimum of -1 to a maximum of 1.

b. Emotion Wheel
On the Emotion Wheel, the user chooses which one best describes the user's feelings. There are 16 emotions (feelings) where each feeling group has 4 scale values starting from the smallest button, namely 1 (one), which means weak or low, to the largest button, namely 4 (four), which means strong or high.

c. Field Microblogging
On a microblog, users write down their feelings and thoughts according to what they feel. Writing microblog is expected to use English.

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4 DISCUSSIONS

In the process of development, testing, and experiments carried out, suggestions or recommendations for future research are needed, including the following:

1. In order to obtain good results, it is hoped that future studies will have a larger number of participants, especially to compare the impact of video games versus storytelling on empathy.

2. Adding additional features such as a language translator button on the empathy online tool, in order to make it easier for other users to adjust the language they want to use according to the language used by each user.

5 CONCLUSIONS

This research has final results that can be concluded, including:

User experience related to empathy can be analysed using the empathy online tool, where the features developed in the empathy online tool obtain data related to empathic experience, namely in the form of features: Affective Reflection (Range Slider) and Geneva Emotion Wheel. These additional features are useful for evaluating the empathy experience level of participants who play the game 'Path Out' and Storytelling 'Brother Across Border'. In the first experiment, participants had the most empathy experience at levels 4 and 5 with the percentage of games: 58% and storytelling: 74%. While in the second experiment, participants had the most empathy experience at levels 4 and 5 with the percentage of games: 70% and storytelling: 80%. Men are more stimulated by games, while women are more stimulated by storytelling. The impact of Games and Storytelling on empathy tends to be the same, with a percentage of 60% of participants having the same level of empathy experience, both through the games 'Path Out' and storytelling 'Brothers Across Borders'.

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