



Knowledge sharing dynamics among Dota 2 online gamers at Indonesian internet cafes

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ABSTRACT

This study aimed to underpin the flow of gaming knowledge amongst online gamers in Indonesia. The findings were derived from the observations of 152 Dota 2 players in the cafes of Jakarta, Bogor, Depok, Tangerang and Bekasi (Jabodetabek), Indonesia. Specifically, this study intended to explore the motivation for players to share knowledge with fellow gamers, the knowledge sharing patterns used and the process involved in developing a skilled and cohesive team to play Dota 2. This study adopted an interpretive approach whereby research participants were observed and interviewed in their natural location. The results revealed that gamers share their gaming knowledge based on their closeness, trust and cooperation that were acquired through online and offline friendships to win games. Cultural differences were not obstacles to the process of knowledge sharing. The key factor is mutual respect between players where language becomes a bridge of communication among cross-cultural players. Since this is an interpretive study, that deployed purposive sampling in its data collection, the results of the study cannot be generalized for the gamer population in Indonesia.

Keywords: ***Dota 2, ethnography, Indonesia, knowledge sharing, online game***

INTRODUCTION

With the advent of high-speed internet, online games have rapidly grown. In contrast to internet-based games which are enjoyed alone, online games are able to bring together parents, young people and children. Reports from Newzoo confirmed that online gamers in Indonesia are estimated to reach nearly 43.7 million people (“The Indonesian gamer”, 2017). This has led to the birth of the virtual community that allows individuals to learn and share knowledge (Chen, Chang & Liu, 2012). Rheingold (1993) defined virtual communities as a place where people gather and form a relationship in a cyberspace.

Currently, one of the most popular online games is Dota 2 (Defense of the Ancients). It allows players to connect, interact, create teams virtually and accommodates many players at any one time. This game consists of two teams with five fighters each who defend their team arena. While interactions take place in the virtual world, the behaviour of online players of Dota 2 became interesting to study because of its borderlessness in the space of virtual conversation. In addition, Dota 2 is one of the most popular games in Indonesia (Jap, Triatri, Jaya & Suteja, 2013). The phenomenon of online games cannot be separated from the concept of virtual communities, namely internet users who repeatedly connect and interact with others online. This collection of virtual communities enables individuals to build and nurture relationships in the same coveted, shared world of values and goals.

Many join competitive online game communities to search and obtain knowledge that can help solve their gaming problems. They can easily interact with each other without the constraints of space and time. Eventually, community members move on to deeper relationships to gain knowledge and share it with each other. The key to successful interactions is knowledge sharing. Community members not only seek and retrieve knowledge to improve their skills, but also to strengthen their understanding of each other (Alajmi, 2011; Alsharo, 2013; Angela, 2013).

This study aims to explore the flow of knowledge among 152 Dota 2 players in the cafes of Jakarta, Bogor, Depok, Tangerang and Bekasi (Jabodetabek) Indonesia, over a study period of three years (2014 – 2017). As this study is confined to Dota 2 gamers, the findings can not reflect the dynamics of other gamers.

This study aims to answer three main research questions, namely; what is the motivation for virtual Dota 2 community members to share knowledge with fellow players, what are the patterns involved and how does the knowledge sharing process take place to form skilled and cohesive teams?

LITERATURE REVIEW

Knowledge sharing

King (2008) explained that knowledge sharing is critical for organisations that believe knowledge is an asset to achieve competitive advantage. The focus of knowledge sharing is the individual who explains, encodes, and communicates knowledge to other individuals, communities or organisations. This sharing behaviour can be distinguished into the sharing of explicit knowledge (written or coded) and tacit knowledge (which is in the mind of the individual). Individuals may have different tendencies when it comes to sharing explicit and tacit knowledge. They may consider explicit knowledge such as reports and memos as properties of organisations that pay

them to produce documents. In contrast, they may believe that the knowledge they have in their heads is their own, making it difficult to share.

Knowledge sharing in the online world is a communication process between two or more parties that are involved in the preparation and acquisition of knowledge. However, knowledge sharing can be a serious challenge for any community or organisation. A sense of community refers to the feeling of relationship and togetherness among community members who belong to a collective entity. This concept, according to Koh and Kim (2003), shows the perception of homogeneity to other members and the dependence of other members to be acknowledged. In this regard, a sense of virtual community is defined as the feelings of individual members within a virtual community.

One of the factors affecting the knowledge sharing process is trust (Chen, Fan & Tsai, 2014). Trust is known as a factor of effectiveness in the practice of sharing knowledge. Trust in others' ability, goodness, and integrity is related to the tendency to give and receive information and to improve performance in a dispersed community.

Another condition is kinship (familism) that refers to the individual who knows and helps one another through interactions. In a virtual community, individuals become familiar with each other, often by participating in interactions with others. Joining a community allows individuals to gain a sense of belonging through interactions and learning values from each other.

Dota 2 online game

Gao (2005) defined online gaming as an internet-based game which is played virtually against others. In this virtual game, players interact with other players virtually from different places around the world. Usually these players believe that the role they play in the game can attract new players and keep players long enough to continue these online games.

Dota 2 is produced by Valve Corporation and was first introduced to the public in July 2013. Dota 2 involves two teams of five players who attack ancient large buildings that are found at the heart of the opposite team's defence. Each player can independently control his character and can choose from 113 characters called "heroes", each with its own designs, advantages and disadvantages. Heroes are divided into two main roles, that is, carry and support. The carry role usually starts the game but can later become more powerful at the end of the game and lead the team to victory. In contrast, the support role is in shortage and sustains high damage but can still help the team win the game.

Dota 2 is a very popular but complex online game. It is deemed a laboratory of contestation between humans and computers (artificial intelligence). With millions of users worldwide, Dota 2 also provides active competition for professional players through various leagues and tournaments. The biggest competitions organised by Valve offer prizes of up to millions of US dollars. Each of these big games is usually broadcast on the internet as well as television networks and seen by millions of people. Online games such as Dota 2 can easily reach teenagers, adults, men and women in Indonesia who are entranced by the charm of online games. Since its introduction 15 years ago, Dota 2 has reinvented itself to meet the needs of gamers all over the world.

METHODOLOGY

This study adopted an interpretive approach with an ethnographic method; more specifically what Robert LeVine termed as “person-centered ethnography”, that is, an anthropological endeavor to develop ways of describing and analysing human behaviour, subjective experiences, and psychological processes which resemble the actual experiences (Hollan, 2001).

Ethnography is an empirical mode of study conducted by observing a phenomenon in its natural setting. It relies on participatory observation to obtain primary data from humans involved in the phenomenon being studied. As this type of study concerns humans, the researcher(s) become the key factor to its success. The three researchers in the present study had slightly different roles: while the first author was the main researcher (primary person who conducted interviews), all the results were discussed and analysed by all three. Without the use of any software, the respondents’ gaming knowledge and experiences were analysed and interpreted before being manually categorised into a set of themes. The themes were based on associations, similarities, and differences across sets of data (Gibson & Brown, 2009).

In-depth interviews with 152 Dota 2 gamers were conducted over three years (2014–2017) in internet cafes in Jabodetabek Area. The interviews were conducted in five cafes with consent from the café owners. The vast majority of the gamers were male adolescents; there were only two female gamers. More specifically, 15 respondents were from elementary schools (SD), 42 from junior high schools (SMP), 47 from senior high schools (SMA), 30 from colleges, and 18 players were employees. A majority (116) of the respondents were from the middle income class while the rest were from the upper and lower income classes. As the sampling employed was purposive, the selection of respondents is not representative of the entire online gaming community in Indonesia. In this regard, this study does not seek to make any generalisation that applies to the Indonesian online gaming community.

Data collection involved observations of individual behaviours and activities in the selected locations. Besides that, researchers conducted face-to-face interviews with respondents based on unstructured and open-ended questions so as to elicit their views and opinions. Interviews were conducted only after researchers themselves played at the cafes several times on different days to get to know the players. The observations and interviews were usually done in the afternoon and in the evening, after school activities. Both research techniques were flexible, partly depending on the mood of the respondents. In many cases, observations were conducted first followed by interviews. In some other cases, interviews were conducted first followed by observations. On average, visits to research locations were conducted 2–3 times a week, each visit lasting 2–5 hours. Researchers recorded all the information from the respondents using audio, notes and video. All the data were transcribed before being analysed.

RESULTS AND DISCUSSION

The drivers of knowledge sharing

Based on the data analysis, trust and familiarisation are the driving factors of knowledge sharing among Dota 2 players. The results of this study corroborate with similar studies (Aliakbar, 2013; Chen et al., 2014) that trust is a significant factor in the sharing of gaming knowledge. Concerning trust, the divine factor (which refers to the higher-level playing skills of Dota 2) is dominantly discussed. *Dewa* (“god”), who is considered the greatest gamer, teaches higher-level skills such as

how to design strategy, dodge the enemy and choose heroes to win a game. The way knowledge is transferred from “god” to “copo” (or “cupu” — a title for Dota 2 players whose game-playing skills are still limited) varies. Some teach directly by giving instructions while others quietly give directions on how to play well. Others give tips on winning games through the chat room provided by this game. A respondent shares the following regarding “gods”:

“Some are arrogant, want to be loved. There is the supportive type who helps persistently for the team to win. The gods usually want to teach. If there is a snobbish copo, he/she will be insulted and cursed. There are various gods in Dota 2, the whiz who never show off or is not chatty. There is the god who teaches, there is also the god who speaks harshly and likes to insult. Those are three kinds of gods” (Respondent 12).

Many participants mentioned that in addition to learning from players at the god level, knowledge is also obtained directly when “copo” players learn about game strategy on YouTube. Youtube is usually the preferred choice because it contains instructions using visual tools that can be easily implemented when they play:

“I often play Dota 2, I like to read people’s blogs. I like brainstorming in forums and I can comment. On Youtube, it also exists. For newbies, there are also tutorials, but sometimes newbies finally know from friends” (Respondent 33).

As a team-based game, cohesiveness is not only built during game play. Various efforts are made to build solidarity so that the game can be played better due stronger bonds built through mutual understanding. The trick is usually to hang out together in the cafe or outside the cafe. Hangouts at café refer to playing Dota 2 together whereby players can shout instructions to each other in determining a strategy to win the game. Additionally, gamers build each other’s confidence outside the game by doing something together such as eating out.

As another driver of knowledge sharing, cooperation is crucial in winning the game. When a player is selfish, the effects to the game can be detrimental. Sharing knowledge will work well if there is closer cooperation. This was explained by one of the respondents:

“In e-Sport like Dota 2, cooperation is important, selfishness is unreliable. The five-man brain is contrived for one person. Certainly do not show your selfishness. To win, cooperation is needed, the two are encouraging each other. You can make the team to cooperate or not, based on the match played, whether you are the god player or the ordinary player. Even based on the hero that is played close cooperation is also needed.” (Respondent 13).

The respondents’ narratives discussed earlier imply that trust and cooperation are significant factors in the sharing of gaming knowledge. Trust, in particular, is important for communication. Without trust, there is no effective communication.

Sharing knowledge in the online and offline world

The flow of knowledge also occurs online and offline, usually online when the god-level players join a team with a “copo” or newbie. Sometimes the strategy for a game is sent through chat, but it depends also on the “gods”, whether they will be helpful or insult the “copo” players. Clearly, the flow of knowledge will depend heavily on the will of the “gods”. For the “copo” players, the willingness to acquire knowledge is also an important factor because if not, the newbie may play carelessly and could even harm the team. In addition to the virtual world, knowledge-sharing environments also exist offline where gamers can learn from each other, for example, why a game was lost. In subsequent games, they will play again and discuss new strategies that can be tested. As one of the respondents explained:

“Started by my friend. Initially I was introduced to first offline game, then I was introduced to the internet cafe. In playing Dota 2, I was taught by seniors who have God-level because he often plays in internet cafe. In 2013, I just really learned Dota 2. When we meet offline, more at the mall, we talk about better strategy of play. The solidity is important.” (Respondent 56).

It is clear that online and offline spaces are “artificial.” In reality, the two spaces cannot be separated by those who intend to share in-depth gaming knowledge and experiences as in the case of Indonesian Dota 2 players. They cannot escape the use of non-verbal messages in face-to-face communication. In social communication, non-verbal messages such as hand gestures, facial expression, and intonation are often considered more important (and carry actual meaning) than verbal communication.

High-context communication

Barker (2015) highlighted that knowledge consists of two aspects: explicit and implicit. In this study, the online gamers in the cafe share knowledge that are both explicit and implicit. Explicit knowledge includes techniques on using the keyboard for maximum results and setting steps in a game which are communicated explicitly through voice mail and text. In contrast, the sharing of implicit knowledge takes place in various situations.

When non-Indonesian players join a team, some Indonesian players share knowledge in writing instead of verbally. As an illustration, NM, one of the respondents said that in a heated game, other players from the Philippines are involved in the communication including directing and blaming. In such situations, NM will usually not react. The silent communication done by NM is read well by other Indonesian players within the same team who choose not to communicate. This is what Behnke (2010) refers to as horizontal information exchange. The ability to send and receive messages through this implicit communication is an instance of the high-context communication found in the Indonesian society.

According to the cultural taxonomy of Hall (An, 2003), the Indonesian society belongs to the category of high-context culture. In a high-context culture society, the message conveyed is implied. It takes an understanding of the beliefs, values, social norms and practices of the particular community to be able to interpret the meaning behind communicated messages. In other words, messages often carry double meaning. However, although team members may not have previous ties, this does not become an obstacle in the transmission of knowledge as witnessed in other virtual communities (Chen, Chen & Kinshuk, 2009). According to NM, after being silent in a

situation that is heating up, fellow Indonesian players will communicate with each other through private conversations in the application (private chat) to freely set the game strategy.

The mutual experience and feeling among Indonesian players lead them to stick together and keep a distance with team members from other countries, such as the Philippines. This situation is of course a social dilemma (Chen et al., 2014), considering the cohesiveness of a team is the key to winning games. Even the usage of comprehensive technology infrastructure such as headsets and chatrooms does not guarantee open communication between team players from different countries (Gaines, 2017). Instead, psychological comfort and cultural closeness are the key factors for openness and comfortable communication between players.

Cultural Understanding

Communities characterised by informal communication spaces are capable of encouraging wider exchange and dissemination of knowledge (Hew, 2006) which however was not fully reflected in the context of this study. Communication among game players takes place through informal nuances, but in practice, cultural proximity becomes the determinant in informal communication that leads to knowledge sharing. This study found that players are not only increasingly dependent on computer technology to be able to connect to each other as suggested by Usoro, Sharratt, Tsui & Shekhar (2007) but efforts to continue communicating outside the online world determines the strength of a team.

According to some respondents, a professional Dota 2 team is homogeneous when the players come from the same cultural background with a high degree of closeness. In this team of professionals, knowledge sharing proceeds optimally when players understand each other's characters, behaviour and attitude. Thus the intensity of meet-ups outside the online world becomes crucial.

Li (2010) highlighted that research on intercultural knowledge in virtual communities is still relatively low. In the present study, researchers found that Dota 2 virtual gaming communities have enabled players to learn about the culture of fellow players. The team's routine or referred to as community practice by Ho and Kuo (2013), which consists of players from different corners of the city and even continents, enables team members to learn about cultures from different countries. This tacit understanding helps players develop their own perceptiveness when it comes to interacting with team members from different cultures. This perceptiveness helps players develop a personal and communal control mechanism when dealing with intercultural players as shared by a respondent below:

“When playing with the Pinoys, we are already aware of how noisy they are. Although sometimes we get angry when we see them like cursing in the language that is not clear. We laugh at the way they behave” (Respondent 88).

In the offline realm, there is no stereotype of Pinoys amongst Indonesians in general. The most popular negative stereotype found is for the Malaysian society, which began with Indonesia's confrontation with Malaysia in 1966 (Reinhardt, 1967). Since the confrontation was first echoed by the first President of the Republic of Indonesia, Soekarno, the people of Indonesia have harboured feelings of hostility towards Malaysians. In a soccer game for example, Indonesia's victory would be meaningless if it had not been against Malaysia. Surprisingly, in online games, Indonesian players feel entirely much more comfortable and positive when it comes to dealing with players from Malaysia. The respondents claim to know and understand the nuances of

“discomfort” when they hear the word “Malaysia” in reality. However, this outlook is not “contagious” in the online world. This can be attributed to the experience and knowledge in the online world which shows different nuances. In comparison, the gamer community of the Philippines is considered much more annoying than the players from Malaysia. This new cultural knowledge is found only amongst Dota 2 online gamers. As one respondent related:

“Yeah, we always know that Malaysia is annoying because of the ball, badminton, etc. However, in the game, it is very different. Malaysians are calmer, not talkative. They still use English. Unlike Pinoy, who talked on and used their language” (Respondent 9).

In any virtual community, similar purposes, references and passion become the adhesive that accelerates the exchange of knowledge (Hsu, 2015; Wang & Wei, 2011). This is confirmed in the present study which found that these are the three main objectives of the respondents.

The first objective is learning about a game. As Dota 2 requires playing in teams, a first-timer will intentionally look out for friends who can interact directly with them. According to respondents, when learning to play Dota 2, gamers will deliberately play in the cafe to find a partner in a team whom they can interact with on a face to face basis:

“This is confusing when studying alone. Dota 2 is hard if not taught. So I went to the cafe. There, there must be players as well. I’ll approach, see, and keep asking them. If it were so, I’d be quicker to understand it” (Respondent 101).

As explicated by Iskoujina and Roberts (2015), knowledge dissemination does not just happen in one go, but involves various stages such as transformation, articulation, interpretation and absorption. For new players, linear knowledge sharing is less efficient in accelerating the absorption of knowledge. Outside the game, players can determine the duration, pace and rhythm in learning about Dota 2 techniques and tactics. In contrast, when a new player is plunged into a Dota 2 game as part of a team known only in the virtual world, players find it very difficult to catch up due to time constraints, fast pace of the game and knowledge that is not necessarily beneficial to a beginner.

The second objective to why gamers are involved in virtual communities is because they seek closeness and camaraderie in the gaming community. Players claim proper knowledge sharing makes their life more meaningful; they feel like a new person, having acquired new knowledge. Jubran and Sumiyana (2015) contended that one’s desire for knowledge is driven by the need to influence others in a positive way.

The presence of other players in the virtual online gaming community, who share knowledge, helps to develop the dignity and self-esteem of each player. This personal satisfaction encourages them then to share their own knowledge with other fellow players. In addition, players feel they have acquired “friends for life”. Subsequently, sharing knowledge creates familial bonds amongst players. The desire to play together then becomes the driving force behind the transfer of knowledge among players in a team.

Finally, players want to make sure that they have multiple networks that can support them when they play in a Dota 2 game. A respondent shares the following:

“I was looking for backup troops. If at any time my gang is not available, I already have a lot of backups, that is, people who are indebted to me because I ever taught them to play games. This is more comfortable to play in a team with people we know” (Respondent 127).

Effectiveness and efficiency in a game is key to victory. To achieve this, players need team members or partners who are also friends. Thus, players always strive to share their knowledge with new players in the hope that they can rely on them, when the need arises, to win in a game.

The proximity of culture and knowledge-sharing activities

Wei (2009) explained that cultural differences is one of the barriers for knowledge exchange. In contrast, the present study found that cultural differences is not an obstacle to the process of disseminating knowledge. The underlying key that enables this is the mutual respect found amongst players. Additionally, language becomes a bridge of communication among cross-cultural players. The willingness and the ability to use a mutual language that is understood by everyone such as English enable players to share knowledge with strangers whom they have just met in cyberspace. The use of a mutual language (English) enables cross-cultural players to rapidly build a common vision and bond as a team, even after short meetings. While knowledge sharing is not solely attributed to the same factors as Wang and Wei (2011), cultural sensitivity among players was found to be the driving force for the exchange of game strategy knowledge amongst cross-cultural players.

According to Topchyan (2013), the anonymity of the internet allows individuals in the virtual world to acquire equal status with one another. It is able to pare down the stereotypical behavior as well as all the negative effects of cultural differences. The present research however, reveals that the anonymity accorded through the special identity of gamers, does not suffice to completely mask each gamer’s culture. The mode of communication and expressions displayed during a game provides the realisation that leads to the stereotyping of each gamer and his/her particular cultural community. In this regard, the utilisation of technology is not entirely capable of eliminating the negative social impacts of interactions between players in a virtual gaming team. In addition to promoting positive values (Zakaria, Sulaiman, Ibrahim, Abdullah & Zabidi, 2013), the present study also found that knowledge sharing can also affect the formation and dissemination of negative values to fellow gamers within a team.

Social interactions between individuals in virtual communities are driven by consideration of profit or loss (Liao, To & Hsu, 2013). However, profit or loss is not necessarily a major aspect. Players always play even if the situation they find themselves may not be ideal. No circumstance is ever adverse enough to force a player to altogether abandon a Dota 2 game and his team.

A player may share with his fellow player his/her uncomfortable feeling in dealing with a stranger but that does not stop them from continuing with the game. The player will instead continue playing without communicating with the stranger and focus on the game. This strategy is still a successful one considering a team of players who really do not know each other are still able to win a game without communicating and sharing knowledge with each other.

In the context of this research, the players of Dota 2 prefer to have teammates they knew. Closeness and camaraderie built outside the online world enables the knowledge transfer process to take place more efficiently. As one respondent puts it:

“It’s like this, even though the player can enter the local server, Asia or the world, we can make an appointment with friends to play with. So we are happier if there are friends that we know. We are more confident to play, because we can communicate more smoothly” (Respondent 72).

The respondents agreed that a team whose members are very familiar with each other’s personality traits forms a strong team. As characters influence a game strategy, players with aggressive characters are placed in certain positions. Likewise with players who have a sensitive nature. Each team matches the personality traits of the members to the roles found in the online game they play.

Age is a factor in accepting someone into the team. Adolescent and adult (junior high, high school and college) players refrain from joining or accepting younger players who are in elementary school and are labelled as kids. A respondent in sharing his/her personal experience had this to say:

“Playing with the boy kids makes me dizzy. They are very unstable. They continue to move the game. They are not committed. And although only one person plays, he is accompanied by people from one village” (Respondent 11).

As revealed by Kumi (2013), participation is a vital activity in the online community. This condition requires players to have a committed team. In contrast, the presence of players who are not committed to being a part of an online community and sharing knowledge can impede the establishment of a formidable online community.

CONCLUSION

The study concludes that firstly, Dota 2 online player community not only live in the online world but often manage and share knowledge in both online and offline worlds. This finding differs from that of Chen et al. (2009) who argued that close relationship in the online world is a condition to overcome the barrier of knowledge transfer. The findings reveal that the key to a team’s success comes from relationships built in the real world. This applies to both players who play for casual and those who play professionally in a championship. The online world at our fingertips (Iskoujina, 2010) does not always allow to stay in touch. The players instead choose to play together in the same physical space such as a cafe which allows them to continuously gather and share knowledge in real life.

Second, cultural characteristics encourage the process of sharing knowledge dominated by interactions in the offline world. In the context of communal culture, players promote togetherness as a modality for building a team that successfully achieves its goals. Cultural differences is not an obstacle to sharing knowledge. Instead in the presence of mutual respect between players, language becomes a bridge of communication among cross-cultural players.

Third, trust and kinship developed online and offline are important factors to share knowledge. To strengthen their bond, players hang out together either in the cafe or outside the cafe to build trust. Knowledge sharing becomes more natural when it forms an integral part of team togetherness. Trust can also be built when those with better Dota 2 mastery skills share their knowledge with “copo or cupu” players through various means such as chatrooms or direct advice.

“Copo” players can also learn through Youtube or blogs of “god” players about good match strategies. Although this is not a direct method, there is still a flow of knowledge from the better player to the “cupu” or newbie.

Fourth, the patterns of knowledge sharing in general reveals the best flow of knowledge to the newbie or “copo” player. Knowledge sharing can be done via online through the chatroom or directly when they play in a team. In addition, video uploads on Youtube or blogs also enables the sharing of Dota 2 knowledge to many players.

Fifth, playing skills will naturally continue to improve as players continue to practice. In this context, knowledge can be channeled to team members who can learn from those who have higher-level skills. This knowledge includes various tricks on avoiding the enemy, dodging attacks, or rising again after almost being destroyed and winning the game. When there is a skill gap, players with better knowledge (“gods”) will transfer their knowledge to newbie players in a team. Knowledge sharing will be smooth when there is a willingness from the knowledge owner (god) in sharing his knowledge while the recipient (“copo”/newbie) is also open to receiving new knowledge. In the process, both parties should be careful in using proper language and not insulting or cursing each other.

Sixth, the flow of shared knowledge becomes meaningful when they (“god” and” copo”) are in the same team. The coherent cooperation between them will make the flow of knowledge move naturally. They will finally understand the strategy of using heroes to the maximum and dodging the enemy to win the game.

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