

# The Revitalization Concept of “Pramuka Penggalang” in The Digital Game Design

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**Abstract** *The scout activity is a non-formal education in environments such as school and family. Generally, it held in the outdoors as an attractive place, challenging, creative, innovative, and fun. Unfortunately, scout activity is sometimes viewed by half of the millennials as an out-of-date and tedious activity. This kind of thinking created because of a lack of understanding and knowledge. Whereas, many materials introduced in scout activity give a role of forming positive characters. This activity even becomes a tool for developing one's personality. The making of The “Pramuka Penggalang” concept design in the digital game is an attempt to contributing an open mind for the Millennials. The application of Tracy Fullerton's theory to forming structural game marks two essential elements; formal element and dramatic element. This digital game concept design created to help players to gain information about “Pramuka Penggalang” activity and to change the old image of scout activity to become more fun in the eyes of today's generation.*

**Keywords** *Scout, Pramuka Penggalang, Digital game, Tracy Fullerton*

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## 1. Introduction

In The Indonesia language, the word "Pramuka" (scout) is an abbreviation of the word "Praja Muda Karana" which means having a young soul who wants to work. Scout is a non-formal educational activity in the school and family environment usually carried out in the open space with enjoyable, challenging, creative, innovative, and fun activities (PAH Team, 2012). Many of the courses given in scout activities have an impact on character development. In practice, scout activities instill necessary skills materials such as; learn codes, learn a form of rigging, general society knowledge, even an ability to survive that continues to be maintained. Scouts considered as an effective means to instill the spirit of nationalism and learn to practice the values of Pancasila. According to Police Inspector General, Anton Charliyan in Tribun Jabar, scout courses and activities must be developed better, because if this country cares about The Pancasila, then one solution that can do is through the Scout organization. Hopefully, these courses and activities can form a person who is cautious, skilled, and brave, especially for the younger generation. The progress of scouting activities must be maintained so that every young age can continue to participate. As time goes by, scout activities are now lacking the attention of many young generations. Scout activities are often attached to old-fashioned and rigid images. One of the factors that made a youngster's interest decrease is because the course seemed too stressful on academic understanding. Scout activity is no longer a non-formal activity in

the school environment which is fun and entertaining, the laziness and compulsion to participate in scout activities are the main reasons for students for not to take part in the scout activity. The same idea was expressed by Yeremias T. Keban from FISIPOL-UGM, in open discussion about the Opportunities and Challenges of Scout Development in Higher Education, which told in the elementary, junior high, and high school levels, the spirit of running the scout movement was increasingly faded, even seemed to perform the provisions of the education curriculum. Scouts conducted as a formality in schools nowadays, which mean the understanding and value not appropriately conveyed.

Based on the fact, the problem is a challenge faced by scout administrators and those of us who care about scouting activities. Scout activities encounter a decline in interest caused by the image of scouts that are too old and stiff. The worst outcome is the reduction of scout activities interest for upcoming generations. Scouts must be able to plan a revitalization strategy in updating their courses to become more compatible with future needs. By re-branding, an appealing media is expected to form a younger and better image of scout, making scouts more attractive and adaptive to current and next-generation, so that the values needed in this activity can be well conveyed. The plan is contrary to the enthusiasm of Adhyaksa Dault (Chairperson of the Former Scout Division) presented in the news media. He agrees that plan can help scout activities to be accessible to the 2000s generation, which is getting used to cyberspace. It will be a fun activity, enjoyable, carefree, and joyful to be implemented. The feeling of being forced to scouting can be transformed

gradually into pleasure and pride. All essential skills and courses that support scouts such as learning code, rigging, general knowledge, and the ability to survive in the wild, must remain safe and developed more enjoyable by the time. In the corresponding media, Joko Widodo as President of the Republic Indonesia requested that members of the Scout activities are not only just drilled rigging. However, young people who are members of Scouts must have a breakthrough for global change. "The Scout Movement must make a breakthrough, do not think linearly, do not get caught up in the routine, and be monotonous.", "They are a generation that adapts to technological advancements, a generation that is very creative, a generation that is very innovative," he said. Continuing the solution to the problem above, the designer tried to make the design of digital games as part of revitalizing scout activities.

Digital games nowadays have become popular media and can be accessed by various generations and are widely consumed by the millennial generation. Looking at the development of the media, especially digital game media, is a pretty good first step in changing the old-fashioned and rigid image. The digital game is not fully able to solve the problems that exist absolutely, but this design tries to give the first view in rebuilding the fun and entertaining feel that has lost from scout activities at least. Scout activities adopted as a game feature that combined with adventure genre as the primary core of the game. The adventure genre is instilled to provide an adventurous approach and becomes a part which is already familiar to scouting activities in carrying many outdoor activities. The outcome prospect is that the picture of scout activities that created will be fascinating, challenging, and entertaining so that the concept of digital games can contribute to revitalizing scouting, in purpose to increase the interest of today's young generation to re-participate in scouting activities.

## 2. Theoretical Background

### 2.1. Game Structure

Designing a thing is inseparable from using a theoretical reference. This design uses the process of creating by Fullerton's (2008) game design in the book "Game Design Workshop". Fullerton explained that in developing a game, the first thing to do is dividing the game structure into two essentials elements, formal and dramatic. Formal elements help designers understand how a game works to give a particular experience to the player. While dramatic elements used to provide context for gameplay, to attract players emotionally, integrate with formal elements to create a more meaningful experience than just playing and accepting challenges. The following is an explanation of the two elements based on what Fullerton describes in his book.

#### a) Formal Element

Elements that build up the structure of a video game, a video game cannot be called a video game without it. Formal elements consist of players, goals, procedures, rules, resources, conflicts, boundaries, and results.

#### b) Dramatic Element

It is an element that forms a dramatic feature, an aspect that related to the player's emotional side in a video game. Dramatic elements consist of challenges, games, motives, characters, and stories.

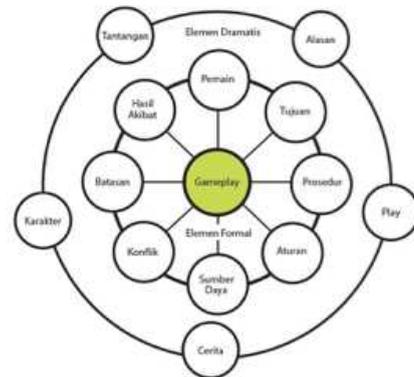


Figure 1. Game Structure

### 2.2. Adventure Genre Game

Ernest Adam explained in his book (2010: 547): Adventure genre game is a type of game that brings interactive stories about the game's character with the player. Stories and exploration are the fundamental core of the game, puzzles in solving problems and conceptual challenges will be found in many games, while challenges such as economic management, battles, and action challenges are not too highlighted, and may even be eliminated.

## 3. THE RESEARCH METHOD

In designing a game, there are several stages of the process that must be done. The design refers to the production workflow based on Ralph Edwards and Tracy Fullerton, which the designer has adjusted to the design requirements.

#### a) Development

Development is a process which ideas from the design expanded. The essential idea can include the concept of game elements, game mechanics, story concepts, levels concept, and further consists of the concept of communication.

#### b) Pre-Production

Pre-production is a process when designers prepare all kinds of their needs to translate concepts that have been set and build into a prototype form. After the prototype was completed, the designer began to build the level (level base) that had been conceptualized with various provisions game elements list.

#### c) Playtest for Level Base

Playtest for Level Base is a step where several game testers will doing a trial with the base level that has been created. The playtest purpose to collect data, essential level

development, and elements of the game itself. The iteration process is done repeatedly to get the necessary framework based on the feedback from the tester. While playtest is done according to specific variables and test subjects.

#### d) Production

Production, this step is the overall game development based on previous processes. The designer will implement the main features and game assets needed, which will then be tested at the next playtest step.

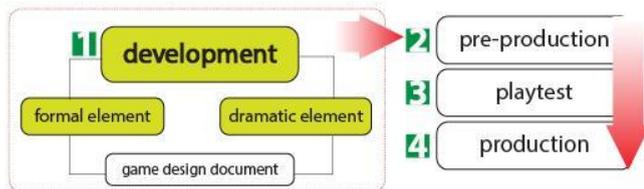


Figure 2. Pipeline development

The design process will stop at the development stage, its because the design itself is still in the process of developing the next stages.

## 4. RESULT AND DISCUSSION

In designing the concept of digital games, the first need is to research several aspects, for the content, scout activities will be incorporated into the game structure then implemented as formal elements and dramatic elements. Penggalang Scout activities are the basis of activities in this game. Penggalang is the next step after Siaga Scout step. Based on age, those who are members of Penggalang Scout are those who have an age range between 11-15 years or in the equivalent of junior high school students. In Penggalang Scout, there are four levels included, namely Penggalang Ramu, Penggalang Rakit, Penggalang Terap, and Penggalang Garuda. There is also an explanation in the complete guidebook, there are several scout courses that can be attended by Penggalang Scout members, such as the Jamboree, Level Competition, Exploration, Joint Training, Campsite, and Jamboree On The Air, and many more. (PAH Team, 2012). Of the many various scouting activities, the designer will focus on four activities that are quite fundamental in the Penggalang scout activities. These activities include; camping, exploration, semaphore, and campfire, these activities will be explained below:

### Camping

The camps that carried out by members of Penggalang Scout is one of entertainment activities and also become a medium to figure an insight into the outside world. For the implementation, the camp activities also intend to evaluate the scout courses that have been obtained from the results of the study by practicing it directly in the camp period. Camp activities begin with planning, followed by choosing a location to build a strategic tent. Provisions that need to be considered for choosing a location are the contour of the land

and the chosen location is not too far from the residential area.

### Exploration

Exploration is one of the scout activities where the activity is intended to apply knowledge about the terrain, maps, compass use, and the ability of survival. Exploring is usually done in groups or teams. Each explorer team has to carry their items. The terrain has many varies traces, ranging from easy terrain to the extreme, which makes the explorer team needs help tools such as wood, ropes, and sticks. However, this exploration activity is safe, because as a rule in their activities, each group or team accompanied by an experienced coach. By doing exploration, scout members will catch the allure of the terrain and the elegance of nature. From that awareness, the exploration activity expecting the scout members can preserve the environment and prepare themselves to be more creative in solving and passing unexpected terrain. One of the scouting knowledge that will be useful during exploration course is the use of a compass and recognition of terrain map. Compass has a function as a determinant by wind, and it is handy for finding directions when reading the instructions contained in the terrain map. The compass that usually used by Scout member is Bidik Compass. Another function of the compass is the use of determining the direction by aiming at a reference object.

### Semaphore

The practice of scouting course that is usually implemented to become one of the evaluations during exploration and camping is the ability to communicate with semaphore. Semaphore is one method to communicate by making code with two flags, the semaphore flag must be a red-yellow colored square, with the red side is sticking by the wood. The semaphore flag is held parallel to the hand. The process of receiving and giving message done by two people, one gives the code, while the other records the codes. The procedure is, if the code sender wants to send a message, address the letters "U" and "R" as the opening, if the recipient of the message is ready, they will show the letter "K", and show the letter "Q" if it's not, if the sender wants to repeat the message then it must show letters "I-M-I". If the sender sends a message incorrectly, the sender must show the letter "E" eight times.

### Campfire

Campfire is a scout activity that is become one of the characteristics of scouting activities when doing camp. Campfire activity is carried out at night. The first thing to do is to make the campfire first. Collecting and arranging wood to burn into a bonfire, use oil to help ignite the fire. A bonfire burn by a torch that a member carries. All group members gather around the bonfire. The campfire is just one, but populous. The activities carried out also varied, from playing activities, singing together, to performing arts. After the campfire activity finished, do not forget to turn off the fire.

## Scouting Environment

Scout activities environments divided into two areas; the school area and the outside school area. The school environment activities will be around the school environment, such as classrooms and school fields. Whereas for activities held outside the school, scouting activities choosing places such as; forests, hills, plantations, and river areas which can carry out camp activities.

## Design Concept

After analyzing the requirement data, the designer starts to formulating formal element and dramatic element in order to create a game structure that will be implemented into the Game Design Document (GDD), here is the design of the game structure by considering formal elements and dramatic elements;

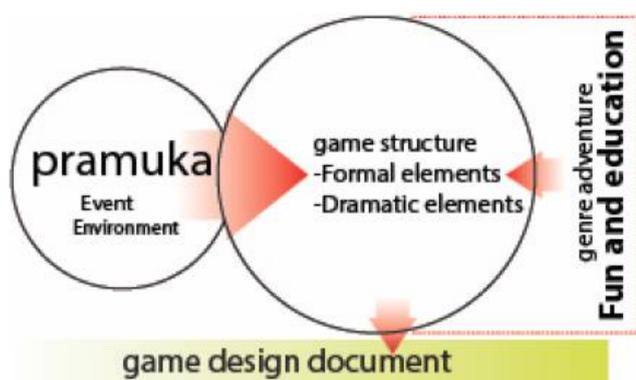


Figure 2. Game concept

## Formal Element Design

Based on the obtained data, the design needs a formal element in making Game Design Documents as fundamental design. These formal elements include players, objectives, procedures, rules, resources, conflicts, obstacles, limitations, and results of the game.

### Player

In this game, there is only one main character will appear with four supporting characters. The main character is a 13-year-old boy who heads the scout group.

### Objective

There are two objectives in this game; the main objective is passing obstacles and completing tasks given at each level with Penggalang Scout's context-related activities divided into four chapters (fishing, gardening, camping, and forest exploration). The fishing chapter has an objective not only to collect fish but also to be able to choose which fish to cultivate and fish that have high content values. The Gardening chapter has an objective to decide the maturity level of the fruit and harvest it. The camping chapter's objective is to set up a campsite. The jungle roaming chapter has a particular purpose. The player must find special items that spread around the forest while the secondary objective of each

chapter is collecting items, achieving perfect grades, achieving certain achievements, and answering quizzes about scout context-related knowledge.

## Procedure

Understand what, where, when, and how the procedure exists is essential. In each feature will have many differences in the provisions of the adjusted process to the content of each feature. In general, the applied procedure in every level, such as; players are required to have enough stamina to go through each level. Players can do various ways to get past multiple obstacles such as running, jumping, and using catapult as a personal protective weapon. Players can use goods from the surrounding environment to become a tool. There are also two systems for improving capability; by transaction and farming.

## Resource

Resources can be identified based on their function and availability in the game. Some resources have the same purpose in each chapter, but some are different. The available resources will be adjusted to the context in each chapter. In the fishing's chapter, the fishing rod resources and various bait levels with hooks will be provided. Chapter gardening provides hoes, sprinklers, pots, seeds to the type of planting media. The camping chapter provided tents and various levels of firewood types. In the exploration chapter, there are twigs, stones, and roots that can be utilized.

## Rules

This section becomes the foundation guide for the game to run properly. Regulations can be through limiting action and determining the effects of several objects in the game that embedded in the character and environment.

## Conflict

The Conflict view divided by type; obstacle, opponents, and dilemmas). Influenced by rules and boundaries creates something that makes players have to do certain things. The design of the conflict will appear more with obstacles from the environment, adapted to various types of scout activities themselves, with an adventure genre approach as the core of this game.

## Boundary

Limits are interrelated with rules and procedures. Furthermore, the boundaries have a range of character movements, the owned items, and also playing space in each of the chapters.

## Result (Outcome)

The results in the game are various and can change, but surely there will still be a form of displaying system-determined results based on what the player has done.

## **Dramatic Element Design**

After finished with formal elements, the designer continues to design dramatic elements which include; challenges, aspects of play, characters, stories (narratives), worlds, and progressions designed.

### **Challenge**

The challenge will be related to the progression between the player's ability and the level of presented difficulty (flow). Challenges are generated by relations in resources, rules, and boundaries, which are contained in the formal element. Hopefully, the relation of challenges can make players continue to enjoy this game by creating the dramatic meaning of this connection.

### **Element of Play (*Play*)**

In the element of play that adapts to the core genre of adventure, players will be presented with an exploration space and complete various missions that have been adjusted to the needs of each chapter.

### **Character**

Characters can be identified based on what the character wants and the character needs, it will be related to some formal elements such as objectives, conflicts, rules, procedures, and boundaries. The main points that become an essential foundation in character design are; the created character is a scout member, always wearing a scout uniform, carrying equipment, and having expertise in a field. The main character is a student scout member who is also the leader of the Penggalang scout group, while the others are the main character associates who are competent in various fields. The visual style that will this game used is combining the style of cartoons with chibi manga. Although each character wears a scout uniform, there will be variations such as accessories used, or facial expressions.

### **Story**

The story can be seen from various perspectives. In this current design, Penggalang Scout activities are the limits of what is presented in the game. Activities and courses that become features in the game are usual activities that carried out by Penggalang Scout. Tells about a group of scout teams named "Team-A" who took part in a 30-day camping competition on a hill in Indonesian territory. To win the competition, the team must collect as many points as possible through the scout activities.

### **World Building**

Each environment has a different asset composition that can create a separate place atmosphere. The composition of tree forests has the structure of laying assets of trees and bushes that are dense, while in the composition of pine forests has a composition of putting different tree assets, the assets of the trees used are assets of pine trees, and many more differences. Besides, the asset environ-

ment also has a feature to change time; there are environments in the morning, afternoon, evening, and night time settings. Each part of the time having a different mood color. For character assets, which used in this game are characters with a chibi art style and posture proportions amount of three heads. Characters are made with the settings of scout members. Therefore clothing and accessories used by characters are scout uniforms along with supporting accessories such as berets and *hasduk*.

Exploration activities are the basis of adventure features in this game. Players can freely explore four forest location choices. Each location has its characteristics. In addition to puzzles in the form of questions or quizzes about scouts, there are also interactive mini-game features such as when playing semaphore mini-games, codes, and rigging. Some examples of mini-games include communicating mini-games, replying to semaphore codes, and also solving puzzles or making objects such as stretchers and stairs using knots and string ties. The use of a compass as direction and object was applied to be the find object feature. Players can search for items or a location using a compass. Other supporting elements such as gardening and fishing features are some of the applications of creativity and variety of activities in open field, as a scout member, of course, protecting the environment, loving nature, being creative, and surviving. Another entertainment feature is the presence of a bonfire, this feature can provide a good-looking atmosphere because when the fire lit, the player can be selected the background song as desired. Every activity that players do will get points. From that point, players also gain experience (Experience / EXP). As much as there is a lot of experience gained, there will be more ability that players can learn. These skills can help players complete puzzles that have not solved before.

The creating of this game is by maintaining the element of entertainment combined with the element of education. Entertainment elements are formed from challenging levels design and unique along with cool features that players can access, such as fishing mini-games, following friends' stories, and forest exploration. Meanwhile, the educational element is displayed by the scouts' courses and knowledge so that players can learn to solve puzzles or problems in their exploration. Players have the freedom to access each feature in the game, but for the material section, players can get new scout courses/new missions if the collected points are sufficient. Points can be earned from all player activities in one day. Later, the obtained points per day will be collected into the player's main points. Each activity has a different point value.

## **5. Conclusion**

The existence of a game structure that is formed from formal elements and dramatic elements, in designing the

concept of digital games, is essential as a development process to be able to translate objects into systematic and structured content. It can be seen how a Penggalang Scout content can be implemented in the form of a digital game. The addition of adventure genres as the main core in placing the elements of play and placing the elements of learning can still do without changing the fundamental concept of the Penggalang scouting activities. From the design concept, it has been able to answer the renewal concept needed from scout activities to re-embrace the next generation and show that scout activities are fun activities. This design is far from perfect, but this refinement process is the core of game development. The next step is developing steps (pre-production, playtest for the level base, and production). This step is needed to realize the game so that this concept is not only a game discourse but also accomplished concept.

## REFERENCES

- Adam, Ernest. 2010. *Fundamentals of Game Design, Second Edition*. Berkeley: New Riders.
- Creswell, John C. 2009. *Research Design: Pendekatan Kualitatif, Kuantitatif, dan Mixed*. Yogyakarta: Pustaka Pelajar.
- Kusrianto, Adi. 2007. *Pengantar Desain Komunikasi Visual*. Yogyakarta: Penerbit ANDI
- Miller, Carolyn Handler. 2004. *Digital Storytelling: A Creator's Guide to Interactive Entertainment*. Burlington: Focal Press.
- Rogers, Scott. 2014. *Level Up! The Guide to Great Video Game Design – 2<sup>nd</sup> Edition*. Chichester: John Wiley & Sons Ltd.
- Tim, PAH. 2012. *Panduan Lengkap Gerakan Pramuka*. Surabaya: CV.Pustaka Agung Harapan.
- Feil, John. Scattergood, Marc. *Beginning Game Level Design*. 2005. Boston: Thomson Course Technology PTR
- Fullerton, Tracy. *Game Design Workshop: A Playcentric Approach to Creating Innovative Game*. 2008. Burlington: Elsevier
- Edwards, Ralph. 2006. "The Game Production Pipeline: Concept to Completion"  
<http://www.ign.com/articles/2006/03/16/the-game-production-pipeline-concept-to-completion>,