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Nobaew, Banphot

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# The Role of Visual Grammar in Online Three-dimension Games

**Banphot NOBAEW<sup>a\*</sup>**

<sup>a</sup>*Department of Communication and psychology, Aalborg University, Denmark*

\*banphot@hum.aau.dk

**Abstract:** This research focuses on the role of visual grammar in online three-dimension games (MMORPGs). The three-dimension games are a new convergent media form, and it has strongly influenced the real and virtual world among the young generation. The research aims to investigate and develop a new theoretical framework of visual language and therefore analyzes the elements of visual design in online three-dimension games. Of course, there are some theoretical frameworks which have been applied to existing media, such as media studies. These have been used to analyze printed media, images, arts, television, film, advertisements, etc., but they still study a common media which concerns a communication process. Multimodal analysis is seemingly to go further than other theories, but it is a broad extensive tools and not sufficient to deeply analyze the designed elements and other effects in online three-dimension games. Online games are a newly emerging media which constitute a new cultural form, game culture; and it needs more specifically developed analytical tools. Therefore, we need to extend the existing frameworks to understand, make sense of interpret three-dimension online games.

**Keywords:** Visual grammar, online three-dimension games, digital literacy

## Introduction

At the present time, “Games” not only has the meaning of “for Fun or Entertainment”, as the traditional meaning, but also it has varied greatly in meanings: for learning in education, medical training, training simulation, arts creating, industrial designing, film industry, etc. Gameplay is often accompanied by a lot of activities where users produce new storylines, new material or objects for the game. However, we might face a lot of problems from game. For example, some games are criticized for enforcing gender stereotypes or suspected of creating more violence in children, addiction, etc., some games are mistrusted for persuading people to gamble such as Farmville, a real-time farm simulation game, which always rule the players to trading with other players during gaming. On the other hand games are argued to be good for learning; they can teach people to valuable skills and literacy. Some games can educate and teach young people facing with the real problem and solving it; for instance, Hans, the Moose-Taunter, the 12-years-old boy who utilized knowledge from a World of Warcraft game to fend off moose [1], etc. We need more knowledge about how games operate, how players make sense of them and how they are produced and co-consumed? As all issues, it leads to the research questions; how visual elements of game design transform the visual meaning to players, how game players perceive and conceive elements of design and interpret the meaning of references, and what is the visual grammar of online games. The research will apply cross-disciplinary methods such as multimodal analysis, visual grammar, media discourse analysis and semiotics to analyze the objects of study which includes game

players and co-producers, game designers and others. The research will collect and analyze systems of signs from games in term of designed elements and meaning-making message. In this empirical study, it will be done as a “cycle step”, starting from the first field work research by interviewing the game designers and game players, next arranging the games workshop, then setting the second interview and data collecting. At the same time, an online research is also investigated during the research cycle by joining and analyzing the online games. When we know the visual grammar, people can use it for design games, for learning indifferent meaning. That is what we call digital literacy and this research also contributes to our understanding of what digital literacy is and how it unfolds in relation to online three-dimension games.

## **1. Theoretical and empirical approach**

A theoretical approach of visual media analysis has been developed since 1916 by Ferdinand de Saussure in linguistic sign and the sign relation by C.S. Peirce (1860) as he devised his system of three categories. He based his semiotic theory always on the conception of a triadic sign relation. He defined semiosis as "action, or influence, which is, or involves, a cooperation of three subjects, such as a sign, its object, and its interpretant, this tri-relative influence not being in any way resolvable into actions between pairs" and Barthes in mythologies, proposed that the aim of semiological research is to reconstitute the functioning of the systems of significant other than language in accordance with the process typical of any structuralist activity, which is to build a simulacrum of the objects under observation [2]. Therefore, making comprehension of visual digital game which is a hybrid form of multi-disciplinary study, which needs to employ a variety of disciplines and methodologies such as compositional interpretation, content analysis, semiotics, psychoanalysis, media discourse analysis and audience studies for analyzing the visual image e.g. as Rose proposed the sites modalities and methods for interpretation visual materials [3]. In addition Cubitt also argues the step from still images to moving images concerns especially the temporal dimension of human communication, a focus too often missing from poststructural analyses by the uses of visual cultural analysis in the emergence of new visual practices [4]. Moreover, this research is also applied to other disciplines which include both grounded theory and existing theory, such as film analysis, crash theory, and custom theory; consequently, social semiotic context is strongly considerate analysis in differ research area both physical world and virtual world.

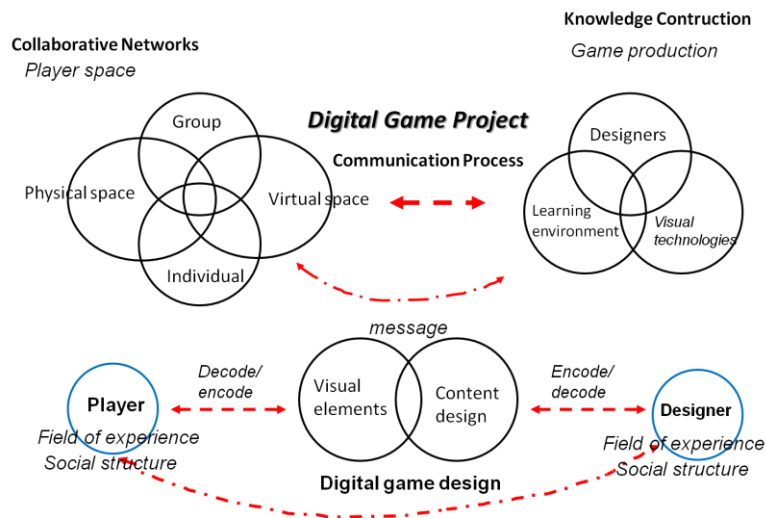
The digital media, as video games, is a compound of the complex form, or a system of signs as stated by Barthes. Moreover, it is also a structure of elements of design: point, line, color, texture, space, shape, form, direction and value. It is encapsulated a collective meaning by the elements of semiotic or ‘visual language’. Visual language is not simply producing the ‘set of reality’; on the other hand, it reproduces images of reality which are associated with the interest of social institutions. This reality is reproduced and circulated in different media. “They are ideological. Visual structures are not merely formal: they have a deeply important semantic dimension” [5]. Theoretical studies within arts history, media study and visual culture, have been applied to analyze and interpret the meaning of media such as art works, films, television and others. However, there are still has the question with theoretical framework for analyze the new convergence media which produced by new media technology as ‘visual grammar’ propose by Buckingham [6].

## **2. Research Question**

What is the visual digital grammar of three-dimension online massively multiplayer role playing games affordance players as the sense of learning?

### 3. Research Landscape

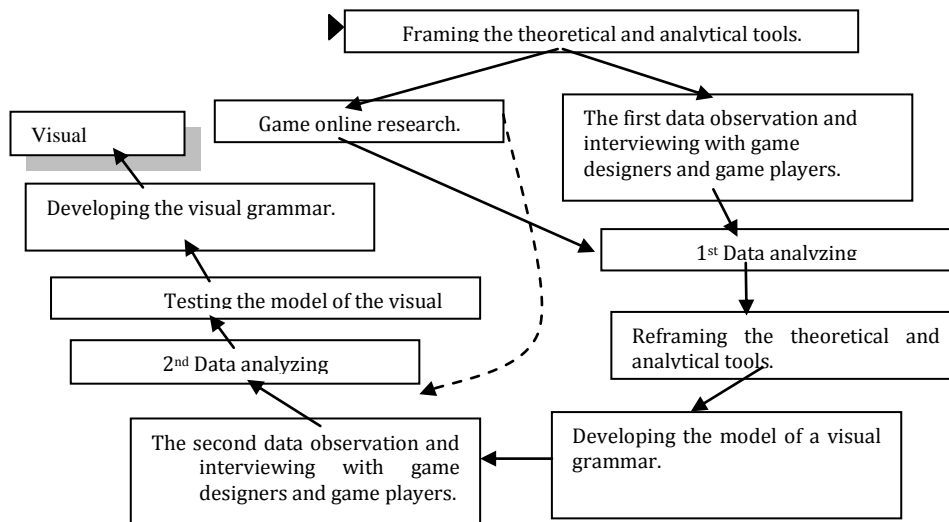
Analyzing the visual grammar structure is necessary to conduct research within the visual language in media arena. An online game is the best sample of a visual digital production (Figure 1) to be selected for the research's unit of analysis. Because it mixes all techniques of media production from a variety of media such as film, painting, sound design, etc. This research focuses on the visual-media discourse analysis of digital games landscape in side of both designers and players who participants with elements of the design in game space. Moreover, the player is a crucial person who involves with a game interaction by using their field of experience and social structures to encapsulate and decapsulate [7] the designed elements of games and meaning. Also this research project will analyze the role of game designers who create the complex systems and encode the meaning of message in object elements. Digital game production will be collected and analyzed from different game genres in term of designed elements and meaning-making message.



**Figure 1** Visual digital production landscape

### 4. Research Methodology

This study is emphatically analysis of the meaning of design elements from game landscape which is designed by game designers. In addition, it also analyzes the visual grammar of game objectives via discursive practice of game creators. Therefore, the research will apply more attention to a range of methodologies and empirical studies including: selecting game genre for focusing, online research by joining with gameplay and collecting data, define the design elements and visual elements of game genre for analysis, determine game players and focus groups for research field and data collecting, in deep interview and video ethnography recording game designers and players' behavior, and game workshop arrangement and testing the visual elements by cooperating with game designer, and applying the technique of self-play experiments [8].



**Figure 2** Visual digital production landscape

Setting the visual grammar framework (Figure 2), this research starts with framing the theoretical and analytical tools from analyzing data included the game online research and the first interviewing with game designers and game players. Then, reframing the theoretical and analytical tools for developing the first model of a visual grammar, after that collecting research data by the second interviewing with game designers and game players are the further development of the visual grammar model. Finally, it needs to be tested the theoretical model and framing the visual grammar. This research will collect data via various research tools, such as interview, sound recording, photo shooting, and video ethnography.

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