Development of Support System to Understand Sports :The Case of American Football

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American football is the most popular sports in America. According to reports of NFLJAPAN, people in America like to watch games of american football and they are lovers of american football enthusiastically. However, the American football in Japan is unpopular. In Japan, there are considerably fewer players of american football than players of soccer. However, players of american football increase in recent years.

In this study, I develop a supporting system for understanding rules and the pleasure of american football to spread american football. In addition, I try to construct models of supporting systems for understanding them in all of sports based of my developed system.

There are some books and web sites which handle american football. They are excellent as resources of explaining american football. In this study, I want to more excellently support for understanding rules and the pleasure of american football. I carry out plans as follows concretely. 1)I investigate knowledge of american football beginners about rules of american football and extract what beginners of american football can't understand about rules of american football. 2)I use animation in my system to make users understand rules and the pleasure of american football easily. 3)I use knowledge based on my experience of a player of american football when I develop my system. These three plans are features in my system.

Based on these plans, I developed 'TOMCAT' which is a supporting system

for understanding rules and the pleasure of American football. 'TOMCAT' consists of four knowledge. These are 1) explicit knowledge that consists of an official rule book of American football, 2) experience knowledge based on author's experiment of a player of American football, 3) actual knowledge of video of games about American football and 4) knowledge of beginners of American football which were obtained from my investigation of rules of American football.

In the results of experiments of evaluation using my developed system, I can conclude that a function of supporting for understanding rules of American football works successfully and I contribute funs for users of my system when they watched games of American football. But, I am dissatisfied with results of questionnaire survey about functions of understanding the pleasure of American football. I consider the reason for this result as follows. I think that I can't tell about the interest of American football easily. Therefore, I did not explain the interest of American football in my system intentionally. However, I found that the subjects seem to have been expecting to know the pleasure of American football in my system after interviewing impressions of my system. The gap of author and subjects may cause lower scores in evaluations of functions of supporting for understanding the pleasure of American football though subjects enjoy watching games of American football.

I proposed models of supporting systems of understanding rules and the interest of games in all sports based of results of evaluating my system. My proposed models consists of four knowledge. These are 1) explicit knowledge that consists of an official rule book, 2) experience knowledge based on his/hers experiment of a player of a sport, 3) actual knowledge of video of games and 4) knowledge of beginners of a sport based on what they don't understand rules of a sport. I think I should use these knowledge when I can develop supporting systems for understanding sports and watch games after using these systems. I consider all of these propose as models of supporting systems of understanding rules and the interest of games in all sports