The aim of this empirical study was to examine how players' explicit and implicit attitudes towards content depicted in a video game influence their interaction with the game and their game experience. In order to do so, this study examined a particular case of a video game representing gay and bisexual women. The primary aim was to investigate how players' game engagement is influenced by the topic portrayed and by their attitudes towards gay and bisexual women. The secondary aim was to explore the players' implicit and explicit attitude change towards gay and bisexual women as a result of playing the game. This study used an experimental and a control condition, with two versions of one game differing only in the identity of one character - in the experimental version she is a lesbian and in the control version a heterosexual woman. The modification of the game was a part of the thesis. Participants' implicit and explicit pretest and posttest attitudes were measured, and their game engagement was measured in the posttest. Results showed lower game engagement in the experimental compared to the control group, however, no link between initial attitudes and game engagement was found. There was no significant explicit or implicit attitude change. This study brings new data to the areas of game research defining what elements affect players' experience and players' attitudes.