

## INVESTIGATION OF GAME CODING SKILLS OF MIDDLE SCHOOL STUDENTS

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Games could provide a better learning experience for students. Today's students are already using their advanced mobile devices for personal purposes, such as searching for information on the Internet and accessing course materials (Güleroğlu, 2015). French sociologist Roger Caillois (1957) defined it as a volunteer activity with the awareness that is the different from the real life. These volunteer activities have been carried to the interior spaces of the streets with the help of today's computer and internet technologies (Pala ve Erdem, 2011). Research has shown that 30 million people play the game in Turkey, this figure reached 2 billion in the world where it is stated that the market reached \$ 64 billion. The purpose of this study is to examine various variables of games participating in the contest "I am coding the game", aiming at middle school students to use 21st century skills, as a technology tool, to promote the development of the producing individuals, to open the front of the entrepreneurial individuals, to develop the writing skills and to bring the students living in advantageous and disadvantaged areas together at the same opportunity. A coding game contest was organized for the first time in Ankara with the name "I am coding the game" between the months of February and May 2017. In the contest organized for middle school students, the students are asked to select the computer program and the theme that they want to build. The competition has been supported by EBA, TUBITAK, Stemandmakers Lab, HAVELSAN and ROKETSAN. As a method, qualitative research models were used in the research. A document review covers the analysis of written materials that contain information about the phenomena or phenomena intended to be investigated (Yıldırım and Şimşek, 2011). Game evaluation form developed by researchers was used as data collection tool. The games applying for the competition constitute the data of this work. The data were analyzed by 3 independent observers. 92 games were submitted to the competition in overall Turkey. 28 works were applied from outside Ankara. The number of works applying from Ankara province is 64. These works come from 36 different schools. 136 students applied for the competition. 104 (76%) of these students were male and 32 (24%) were female. 58 (93%) of the central districts and 6 (7%) of the central districts were involved in the contest. 47 (73%) from public schools, 14 (21%) from private schools and 3 (6%) from science and art centers applied for competition. 95% of the games made in scratch, 4% are in Code, 1% game made in in GameMakerStudio program. According to independent observer's opinion games were divided three categories; basic level (f = 47), intermediate level (f = 14) and advanced level (f = 3). On the other hand, it is seen that 52



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(81%) of the works submitted to the competition participated in the Turkish name and 12 (9%) participated in the English name competition. In the 21st century, the importance of coding related works has increased; it has been seen that middle school students generally use simple programs and simple commands when coding games. The importance of the coding education to the students starting to the basic level is understood in Turkey. It is thought that it is important to give coding education to the students starting from the basic level. Despite the fact that the competition was applied in groups, it is seen that male students are more interested in game coding. This conclusion suggests that girls' participation in encodings should be increased or encouraged. It is also necessary to take some precautions for the low involvement of schools in remote locations.

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