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2019 年度 独創的研究助成費 実績報告書

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研 究 課 題	岡山城を中心とした英語版旅行者向け拡張現実（AR）サイトの構築

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研究実績 の概要	With this research grant, I researched possible augmented reality projects for Okayama Castle by visiting other castles and places in Japan that use augmented reality applications. Because of the Corona Virus outbreak, however, I was not able to visit some places I needed to visit and thus the entire amount of the grant was not used. However, overall, many good points and bad points were examined and this knowledge will be used to create a fulfilling English-language AR experience for visitors to Okayama Castle.

研究実績 の概要	I visited Chiba Castle, a reconstruction of the original castle and mostly a folk museum now. I was able to get a feel for the castle from the outside and observe some possible augmented reality possibilities. Visiting the Tokyo Imperial Palace was also beneficial to my research. I was able to see and use a Web-based app that the palace and the adjoining gardens use for tourists. This, as well as the extremely well-guided tour, will be used to better develop my design for Okayama Castle. The Edo-Tokyo museum was also beneficial to my research. Most of the English explanations were limited to titles only, but they still gave me many ideas. The unique building modeled on a raised-floor-style storehouse holds 400 years of history and culture in replicas and authentic items starting from the Edo period. This is a place to visit again to get a better understanding of life surrounding a castle. I also went to ヴィラーズ・クライミング有明 to examine the use of augmented reality in the climbing wall they use. It was a very interesting visit. They had two walls, one for regular climbers and one that incorporated augmented reality. The augmented reality program was very similar to the game Pokemon Go. Characters were projected on the wall and participants would then climb toward them. The climbers could "kill" or "destroy" the characters by touching them. There were several courses available. Overall, this was a very interesting example of the use of augmented reality. I also visited Maruzen Bookstore to research Japanese castles in general and Okayama Castle in particular. I now have a solid background of knowledge for my research. Lastly, Odawara Castle was one of the best castle sites I visited. There were many interesting AR programs there. Both a city sightseeing app and a castle app. Some of the observations I had included the AR codes were too low to the ground forcing one to get down on all fours, knees in the sand, to access; no explanation on how to use the app; lots of signs and most were in English, too, but many times the English was bad and funny; and sometimes the castle app didn't work even though the sign said it should work. All of these so-called "bad" experiences are actually good as I can use them in my design and avoid the same pitfalls.