GIST undergraduate team won the grand prize in the university student category at the 2023 Nexon-GSOK Thesis Contest

– The undergraduate team of Sang-min Lee, Jong-hyeon Park, and Yun-jeong Lee submitted a paper exploring the impact of audio-visual effects in games on the playing experience by using eye-tracking technology based on their experience participating in research at the 'Language, Cognition and Brain Laboratory (LCBL, Professor Wonil Choi)'

▲ Commemorative photo of three GIST undergraduate students who formed a team to participate in the '2023 Nexon-GSOK Paper Contest' and won the grand prize in the college student category (From left) students Jong-hyeon Park, Yun-jeong Lee, Sang-min Lee, and Nexon Communication Division Director Yong-dae Kim

The Gwangju Institute of Science and Technology (GIST, President Kichul Lim) announced that it won the grand prize in the university student category at the '2023 Nexon-GSOK Paper Contest' in which three undergraduate students formed a team and participated. The awards ceremony was held at BEXCO in Busan on Saturday, November 18.

The undergraduate team of Sang-min Lee (School of Electrical Engineering and Computer Science), Jong-hyeon Park (School of Life Sciences), and Yun-jeong Lee (School of Life Sciences) are research interns at the 'Language, Cognition and Brain Laboratory (LCBL, Professor Wonil Choi)' of the Division of Liberal Arts and Sciences. All of them have accumulated experience researching human language and cognitive information processing processes and published papers using eye-tracking technology* in the laboratory for more than two years.

* eye-tracking technology: This is a technology that can determine where and how much a user is looking, and turns the user's state and eye movement behavior into gaze data. This can be used to determine user interest and excitement. It is widely used in the marketing field, and the location or direction of advertising can be determined by using where the user's gaze rests.

The three students, who were always interested in game research, happened to see the contest announcement and prepared under the guidance of Professor Wonil Choi, achieving good results.

The team of Sang-min Lee, Jong-hyeon Park, and Yun-jeong Lee submitted the paper 'The impact of audiovisual effects on user experience in visual novel-type games examined through Blue Archive: Eye movement tracking study' to this contest.

This paper used a behavioral experiment conducted to determine how various visual and auditory effects affect user experience in a visual novel-type game. A precise eye-tracking device was used to record the positions and movements of the participants' eyes while they were looking at the game screen, and data were collected and statistically analyzed using various methods such as surveys and memory tasks.

Through this, it was revealed that the way text is presented in the game (text animation effect) may be impeding viewers' understanding of the content and play experience, and suggestions were made to improve the game. In addition, it showed that behavioral experiment research can be fully utilized to obtain helpful empirical knowledge in actual industrial settings.

A person involved in this contest said, "This study was systematically structured using a variety of methodologies that go beyond the undergraduate level. From a visual perspective, it is very timely at a time when interest is growing and a lot of research is needed on how game screens should be structured and manipulated."

Representing the team members, student Sang-min Lee said, "In the meantime, Professor Wonil Choi's lab mainly designed experiments to explore the human language information processing process and collected and analyzed data by measuring eye movements while reading. This research experience was a great help in preparing for this contest. I would like to continue to work on more activities in various areas of society in the future."

Meanwhile, the 'Nexon-GSOK Paper Contest', held for the second time this year, is hosted by Nexon Co., Ltd. and organized by the Korea Gaming Standards Organization (GSOK). It was divided into two categories for university students and graduate students under the theme of 'Creative and practical research on games, society, economy, and culture.'

In particular, a total of 43 papers were received this year, which is more than double that of last year, and the review committee, comprised of experts in the game industry, evaluated creativity. A total of 6 award-winning works were selected as the grand prize, excellence award, and encouragement award in each category based on various evaluation criteria such as logic.

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