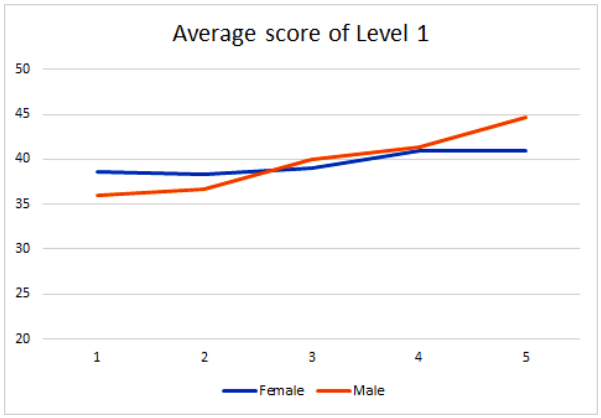

Fig. 8 The average score of Level 1

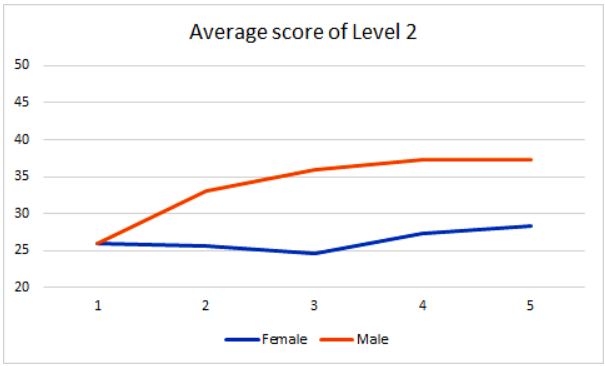

Fig. 9 The average score of Level 2

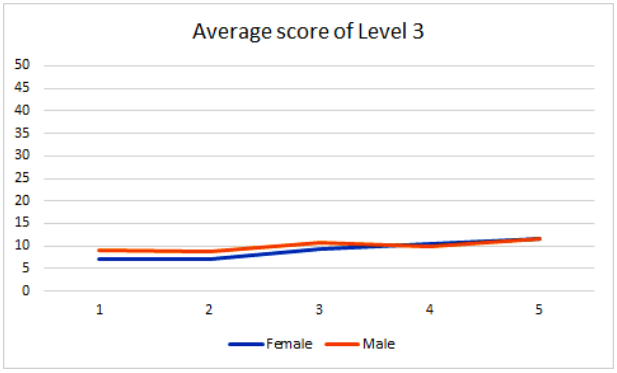

Fig. 10 The average score of Level 3

Fig. 8 is the result at content level 1. The distribution of scores was high for both female and male participants. Compared to Level 2 in Fig. 9, Level 1 scores high, and the increase in score is not significant. On the other hand, in Level 2 (Fig. 9), the male showed a large imagination in the 2nd to 4th experiment, but the female gradually increased the score. Level 3 of fig. 10 has the lowest score overall. Also, the score did not increase significantly over time. Also, in the case of Level 3, it was found that the concentration of the experiment participants was reduced considerably. The low score of level 3 predicted that the immersion of contents was also reduced because it was impossible to block the external environment completely, and the participants' fatigue was also high. In the case of pc content, the width of the score also increased, and all the participants showed an adaptation to RPL.

IV. CONCLUSION

In this study, the contents that were conducted in the same way were implemented in PC and VR, respectively, and experiments were conducted. Because the PC version of rehabilitation content is a home-based vision therapy that can be rehabilitated at home, it has the advantage of being able to proceed regardless of time and place to maintain the effect of permanent rehabilitation. However, to maximize rehabilitation effectiveness, an assistant is required, and the assistant act's competency and role are important factors.

On the other hand, rehabilitation through VR can maximize the effectiveness of rehabilitation while minimizing the assistance of assistants while immersing in the rehabilitation process with the HMD completely blocked. When using an HMD with built-in EYE Tracking function such as FOVE, it is possible to easily collect the user's eye data, so more effective rehabilitation can be expected through data-based feedback.

In the experiment conducted through the two types of contents implemented, 12 non-disabled 6 men and 6 women participated as experiment participants. Before proceeding with the experiment through content, the variable characteristics of the PRL appearing in the process of determining the PRL and, in the case of not matching the purpose of the experiment, were excluded from the experimental result data, and the experiment was conducted.

This content was produced in two versions to test the hypothesis that fixation stability improves the target's attention and reading. As a result of the experiment, all participants showed an increase in the anchorage of the selected PRL on average, and it seemed to be adapted to seeing objects with PRL. Since the experiment was not conducted for a long time, and the experiment was conducted with a single content using only the target and size of the arrow rather than various contents, future research plans to diversify the content and difficulty further, and we want to apply this content directly to macular degeneration.

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