

先端科学技術研究科 修士論文要旨

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要旨			
<p>Expert midwives have techniques to help pregnant women deliver their babies safely and in better health. Although the techniques have been analyzed so far, the results are not enough reflected in nursing training courses since they are rather qualitative. To analyze the experts' skills quantitatively and improve the training courses, we carried out the gaze analysis of expert midwives and novice midwives in a childbirth simulation using a wearable eye-tracker system, computer vision techniques, and statistical methods, since gaze positions/durations are considered to reflect expertise. As a result, we found that novices are not able to keep looking on the necessary items they learned in the midwifery training course at the right time, , while the experts certainly kept looking at necessary items confidently. We also measured expert's and trainees' heart rate variability and analyzed in which situations they were more tense. These findings are consistent with the empirical knowledge of experts, that is, novice midwives tend to pay attention to the face of the parturient. This implies that eye-tracker analysis of viewpoint differences can clarify what points trainees should take care of and that it may contribute to making a better training course.</p>			