

System development to support sports skill acquisition based on video and sensor information

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Research Keywords

Sports Sciences, Physical Computing, HCI, Educational Technology

Research Features

With the development of wear using integrated sensors, the log data of exercise has overflowed in large quantities. Systems and functions that convert these various data into "intuitive", "intelligible", and "intuitive" information (e.g. onomatopoeia) are useful. The feedback information based on the analysis of athletic data can assist in self-training without coach.

Research Impacts

There are a number of platforms, such as video distribution sites, that allow for relatively easy integration with sensors. By combining these, PLYERS can actively use pre-/post-service hours other than meeting with the coach and increase opportunities for educational support. Without prior knowledge (e.g. how to read sensor waveforms) that require expert analysis, they can immediately start training by combining video watching and attempts. In addition, bidirectional exchange of information with the system helps maintain a certain level of motivation and reduces dropouts.

Social Contributions

IoT where everything is connected to the Internet, including sensors, is infiltrating. The technology that provides human-friendly media by narrowing down and converting the enormous amount of acquired sensor data into only the necessary parts is indispensable. It is hoped that this will lead to the transfer of traditional skills and support for independent training for the hearing impaired.

Support Scenario

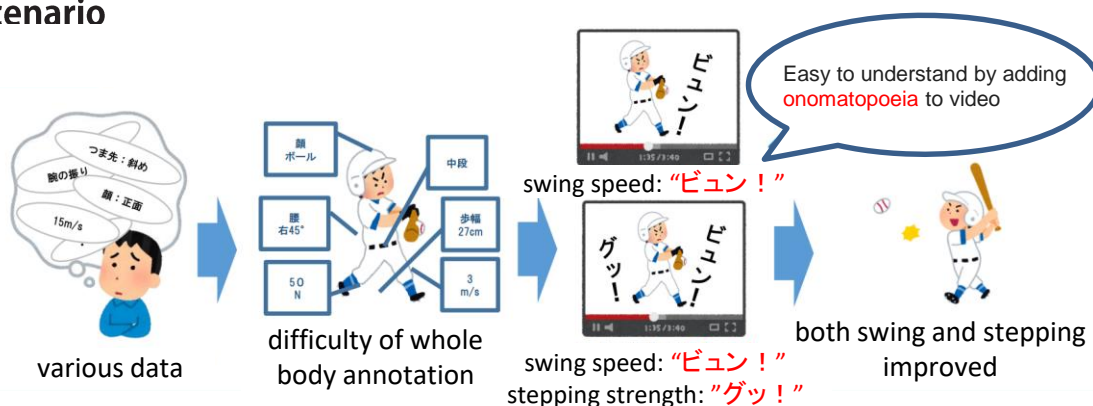


Figure 1. "Orchestra listening to the eyes" based on the research submitted to Learning innovation Grand Prix 2018.



Overview



Demo Video

More Information

You can watch the related online class video named "ICT that gives hints to athletes"(20 mins) from the QR code on the right.

Figure 2. A video archive of "Yumenavi LIVE"
(The Audio is only in Japanese).

