Language Arts Education Method Using Programmable Humanoid Robots

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Abstract

Professional sports coaches teach sports skills to individuals and teams of all sporting abilities. They help people to reach their full potential and take part safely in their chosen sport. They need to have a coaching qualification that is recognized by the governing body for their chosen sport. Sports coaches with schools and community groups need to describe effective body motion because they must give feedback on effective body motion and help to improve effective body motion. The effective body motion is implied their embodied knowledge and/or explicit knowledge. Embodied knowledge is knowledge that their experience and training are not verbalized. While, explicit knowledge is already verbalized based on their experience and training.

Good sports coaches have high language arts and skills. For example, they teach their embodied knowledge by using sport onomatopoeias and habitual words appropriately. However, some sports coaches cannot verbalize own it appropriately. The reason is that we acquire the embodied knowledge without being conscious of the acquisition of knowledge. Some sports coaches haven't reached appropriate their language arts to teach their embodied knowledge. Hence, they need improving the language arts and skills to teach sports players.

In general, language arts and skills are composed in the following four aspects: discussion (speak and listen), reading comprehension (read), composition (write), consideration (critical thinking). In the Europe, especially in Germany, they study the language arts from childhood. However, in Japan, we study the language arts and skills only in Japanese ("Kougo"). So, our language skills are lower than theirs one. This is big problem in sports. Sports coaches cannot teach the effective body motion to players for their language are arts and skills are low. In addition, players cannot understand sports coaches' words. Hence, it is important for sports coaches to improve language arts and skills.

The author proposes a language arts and skills education method to improve language arts and skills of sports coaches. We use programmable humanoid robots instead of "pictures and texts" as a media of language education.   Our goal is to propose supporting method for improving of language arts and skills of sports coaches by using those robots.