

# S-face

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## New Social Settings to Empower People with Disabilities

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## Developing Indices to Encourage Employment of People with Disabilities in Agriculture

Many Japanese companies view employment of people with disabilities as an "obligation" or a "cost factor." Those with disabilities have the potential to contribute to an employer's profits, but at present few have an opportunity to fulfill their potential, principally due to a lack of appropriate indices for understanding the characteristics of different disabilities, controlling workloads, and developing personnel recruiting and evaluation standards. This is a nationwide issue affecting all industries and is a major inhibitor of the employment of people with disabilities. To address this situation, I am developing indices to facilitate job matching, focusing on people with intellectual/developmental disabilities and the agricultural sector. Japan's agricultural sector is facing a serious labor shortage at the same time as people with intellectual or developmental disabilities have difficulties finding a job, even if motivated and able to work. Some farm work requiring careful handling, such as strawberry picking, is difficult to mechanize, while some people with disabilities have an extraordinary ability to concentrate for prolonged periods on painstaking tasks. Having noted this situation, I analyze the characteristics of specific farm activities and individual disabilities to create indices to be referred to in job matching, aiming to provide a solution to both parties. Benefits to those with disabilities from engaging in agriculture are not limited to employment and earning a living. They will also develop a healthy daily routine—getting up early, doing physical activities at work, and sleeping properly at night. This is also expected to help improve their dietary habits. Adequate physical activity and an appropriate diet are key to better health. Such improvements will be beneficial not only to those with disabilities themselves, but also to society as a whole over the long run, particularly through reduced medical costs.

## Why Do People with Developmental Disabilities Appear to Move Awkwardly?

As a physical science researcher, I am studying the behaviors of people with developmental disabilities, including the properties of optokinetic responses associated with the stereognostic sense. Part of my research has been directed at supporting children with developmental disabilities in building athletic abilities at special schools. From observations of target children, I have found that they have difficulty mimicking the motions of other people and reproducing stereo images of objects. Mimicking the motion of something involves a series of processes: from visual input to information processing in the brain and then to physical output. Even people with developmental disabilities have a variety of characteristics: Some are good at physical performance and some have no problems with body movements. People with disabilities are generally characterized by inefficient or often "clumsy" body movements, and it is generally considered that it is the physical output phase that is responsible for this clumsiness. My assumption, however, is that the problem is associated not only with a physical factor but also with the visual input of the recognized motion and stereo image of an object. Based on this assumption, I am working on motion analysis using optokinetic response measurement systems. My plan is to apply the results of this research to develop new test methods for developmental disabilities and invent unconventional and innovative approaches to improving the motion control function. I am also looking to expand applications to research on employment support for people with disabilities, specifically, for quantitative assessment of the cognitive and physical capacity of individuals with disabilities, which is essential to job matching.



## Research Projects Involving Students and Enterprises



In the online event held as part of the joint project between global companies and her study group, participants with and without disabilities engaged in interactive recreation programs. Participating students learned by trial and error how to effectively convey information to people with disabilities and acquired relevant risk management skills. The project is intended to engage students in working to suggest solutions to actual issues faced by companies, with the aim of developing practical capabilities and leadership skills that will help increase social diversity in the future.

After Tokyo was selected to host the 2020 Olympic and Paralympic Games, various efforts were launched in Japan to promote sports for people with disabilities.

Despite this, however, community-level participation in disabled sports has remained low.

This kind of unfavorable situation surrounding disability is not limited to inadequate athletic opportunities, with many people with disabilities also faced with myriad challenges in obtaining employment and receiving education.

Associate Professor Kotomi Shiota is known as a passionate advocate of the empowerment of people with disabilities as a key to a better society. She is vigorously developing research activities, aiming to create a society where those with disabilities play an integral role in contributing to the development of society.

# From "Requirement" to "Choice"— Creating an Environment Where People with Disabilities Can Strive toward Their Goals

## Quantitative Research and Qualitative Research



Assoc. Prof. Shiota simultaneously pursues quantitative research, which is based on empirical investigations and measurements, and qualitative research, which is based on firsthand surveys. Research methods are an essential topic in her dissertation guidance for students in her study group. "Students with a strong passion for their research themes are prone to becoming too subjective in discussing issues," says Shiota. When giving advice on adopting practical approaches and handling qualitative data in writing a dissertation, she particularly emphasizes the importance of developing the discussion after considering objective points of view and opposing arguments.

## Sports for people with disabilities in the community



Program hosted by Institute of Health and Community Sports Research Institute, for which Associate Professor Shiota serves as Director. The establishment of the institute was a response to issues faced by young rehabilitation patients Shiota had met as a physical therapist, who had "no place to go other than the hospital" in their free time. This led her to recognize the lack of adequate spaces in Japan where young people with disabilities can routinely engage in leisure activities, in comparison with the elderly, for whom adult daycare centers are widely available. As many disabled sports can be played by people of all age groups, including children and elderly adults, these sports are drawing attention as an effective instrument for the lifelong pursuit of athletic activities. In light of this, an appropriate community environment will be established to promote disabled sports and adapted sports.

## Supporting Sports and Remote Work for People with Disabilities

In Japan, there are few community settings or places in the neighborhood where people with disabilities can go for sports and recreation or to enjoy leisure activities. To address this issue, I established the Institute of Health and Community Sports which is engaged in the development of events and instructors for disabled sports and adapted sports. Seeking to help individuals improve or maintain their health and better enjoy their life, the institute has been expanding activities to create settings that allow many citizens, with or without disabilities, to participate in sports together.

In 2020, I formed a group of the Institute of Health and Community Sports to launch a venture supporting the remote-work employment of people with severe disabilities. Profits gained by the company are returned to the institute to enable the non-profit organization to sustain operations with minimal financial aid. This system represents a hybrid-type social business enterprise, a model that is becoming mainstream in the United States. These off-campus activities reflect my strong policy of placing importance on practical operations. It is important to read lots of research papers to develop logical concepts, but it is just as important to look for real-world solutions to social issues clarified by such papers, and for this purpose, studying actual situations in the field is essential. In order to effectively link the three roles of researcher, educator, and corporate manager so as to be able to offer solutions to social issues, I will continue to stand firm on this field-oriented policy.



## Profile Kotomi Shiota

Associate Professor, Faculty of Policy Management, Keio University. Completed the doctoral program at the Tokyo Metropolitan University Graduate School of Health Science. Major concurrent positions are Representative Director and CEO of CMU Holdings Co., Ltd. and Director of Institute of Health and Community Sports. Engaged in a diverse range of activities on and off campus in areas related to sports, education, medical care, and welfare.

Please visit S-face website for details!

There are more articles and video of Kotomi Shiota.

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