



**Research on challenges surrounding the exchange of information
in the workplace:
considering changes in the workplace,
such as the dissemination of online communication**

(Research Report No. 179) SUMMARY

[Keywords]

Employment of persons with disabilities
Reasonable accommodation
Communication in the workplace
Exchange of information
Work instructions
Efforts made by persons with disabilities
Online
Teleworking

[Abstract]

This study highlighted the challenges faced by persons with disabilities in the workplace surrounding the exchange of information, as well as accommodations taken in the workplace in resolving such challenges and efforts taken by persons with disabilities. To this end, questionnaire surveys and interviews were conducted with corporations and persons with disabilities.

The following were the findings. First, perceptions surrounding difficulties related to information exchange between corporations and persons with disabilities were similar or different, depending on the disability type of employees. Considering the possibility that differences in perceptions may arise, initiatives taken by corporations to recognize difficulties faced by persons with disabilities, such as providing ample opportunities for communication on a day-to-day basis, were regarded as important. Second, in situations where work instructions were given, as well as those where other forms of information exchange took place, accommodations and efforts were made while considering the characteristics of the persons with disabilities involved, as well as each situation. Third, while the use of various online communication methods positively affected the exchange of information between persons with disabilities, superiors, and colleagues, the effectiveness of face-to-face communication was also recognized.

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2 Research period

FY2023–FY2024

3 Structure of the report

Chapter 1 Background and challenges

Chapter 2 Questionnaire

Chapter 3 Interviews

Chapter 4 Summary

Endnotes

4 Background and purpose of the research

Various items of information are exchanged in the workplace. In addition to interactions related to tasks at work, such as instructions and reports, various pieces of indirectly related information to tasks at work are exchanged in the workplace. However, some employees face challenges related to the exchange of information in the workplace due to their disabilities. Therefore, accommodations made in the workplace regarding the exchange of information that consider the characteristics of individual disabilities are necessary. For example, in cases of persons with visual or hearing disabilities, where information accessibility is necessary, or those with intellectual disabilities, accommodations regarding the methods by which information is provided (such as through the use of diagrams, etc.) may become necessary.

The methods through which information is shared in the workplace have continued to evolve; these methods include verbal exchanges, as well as exchanges via e-mail, chat tools, and groupware. Furthermore, as teleworking has become more prominent in recent years, online exchanges have become commonplace, which has influenced the approaches taken by corporations regarding information exchange.

Within this context, the evaluation of challenges faced, as well as accommodations and efforts made regarding information exchange at workplaces where persons with disabilities are employed, is assumed to be beneficial in appraising work environments comfortable for persons with disabilities. In this study, an attempt was made to elucidate the challenges faced by persons with disabilities regarding information

exchange and the required forms of accommodation. The researchers also attempted to highlight specific accommodations made by parties at the workplace and efforts made by persons with disabilities.

5 Method

To achieve the abovementioned research aims, the following methods were used:

(1) Questionnaire surveys targeting corporations and persons with disabilities

Notably, 10,000 corporations were selected from the list of those that had been reported to employ persons with disabilities, as detailed in the Report on the Status of Employment of Persons with Disabilities (June 1, 2022) provided by the Ministry of Health, Labour and Welfare. Questionnaire surveys were conducted from October to November 2023. During the questionnaire survey administered to corporations, parties knowledgeable about the situation surrounding communication between employees, such as individuals working in human resources or labor at the selected corporations and superiors of persons with disabilities, were asked to respond. Moreover, questionnaires were administered to individuals with disabilities, where a maximum number of five employees working at each corporation were asked to provide responses.

(2) Interviews targeting corporations and persons with disabilities

Where responses to the questionnaire were received from corporations and consent to participate in interviews was obtained from parties who responded to the corporate questionnaire and employees working at such corporations, interviews were conducted either face-to-face or online with 14 corporations. Subsequently, interviews were conducted with the corporations and persons with disabilities in 10 cases. In the remaining four cases, interviews were only conducted with the involved corporations.

6 Summarized results of the study

(1) Results of the questionnaire surveys

Valid responses were obtained from 1,217 companies during the corporate questionnaire survey. The rate of valid responses was 12.2%, and 721 valid responses were obtained for the questionnaire targeting persons with disabilities.

Notable results obtained during this study are detailed below.

A. Exchange of information related to work instructions

In some types of disabilities, the perceptions held by corporations and persons with disabilities in connection with the frequency at which difficulties surrounding the communication and understanding of work instructions took place were nearly identical. In the case of other disabilities, discrepancies were identified in the said perceptions. The types of disabilities where said discrepancies were significant include hearing/language disabilities and developmental disabilities. In the case of these disability types, persons with disabilities reported facing difficulties to a greater degree than those

reported by corporations (Figure 1). Efforts made by corporations to recognize the difficulties faced by persons with disabilities (e.g., ample opportunities for communication on a day-to-day basis) that consider the possibility that discrepancies in perceptions may occur are desirable.

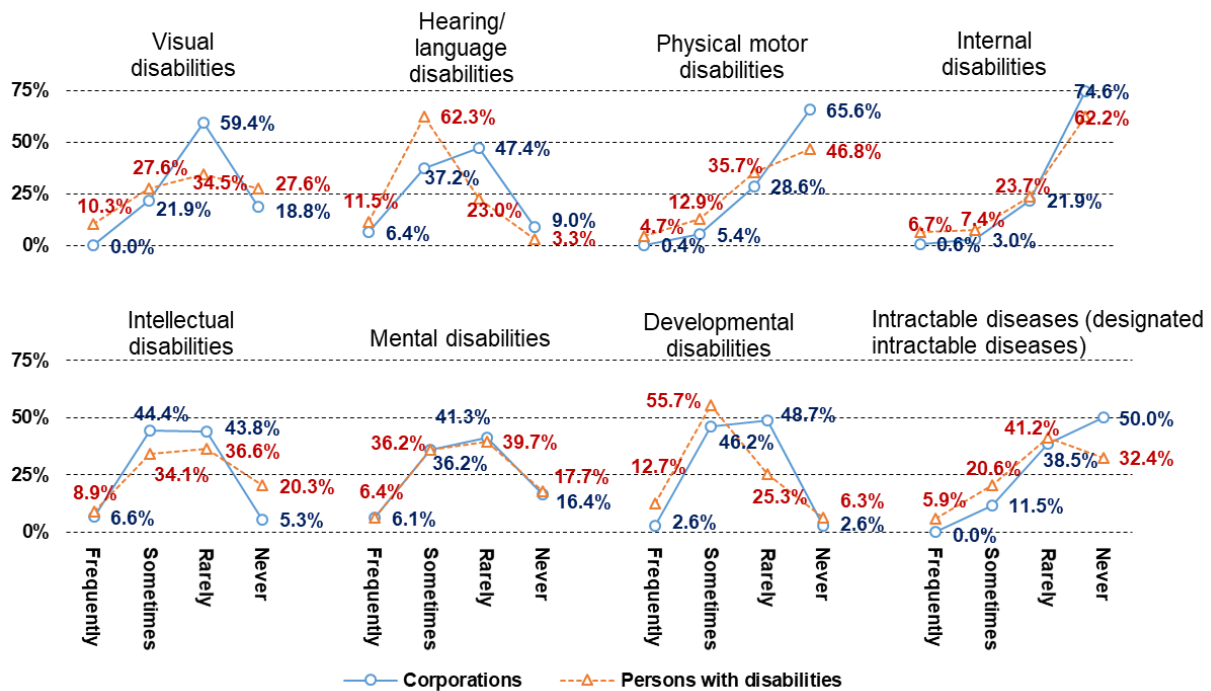
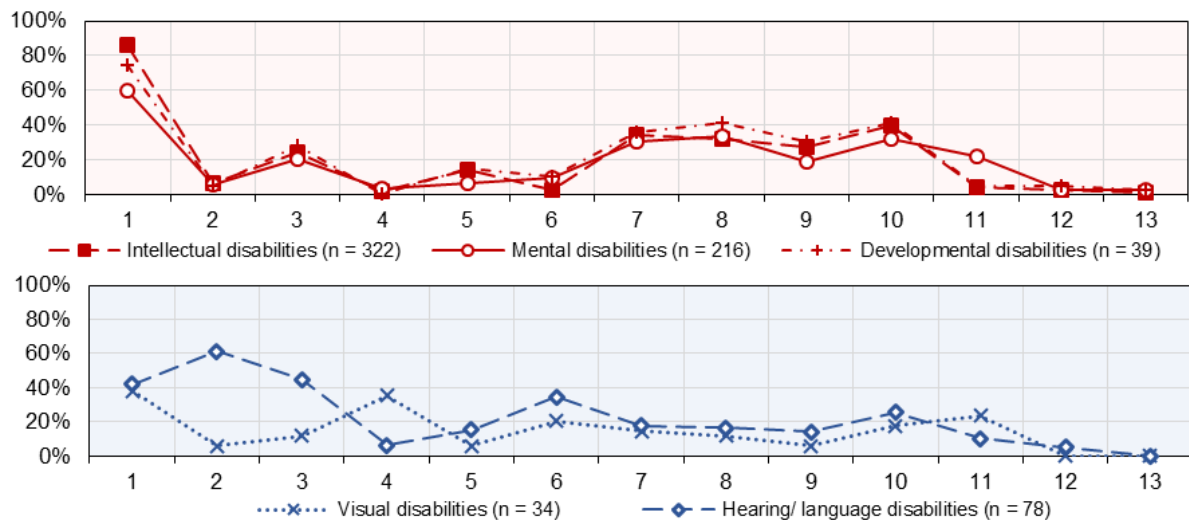


Figure 1: Perceptions surrounding the frequency at which difficulties arose regarding the understanding and communication of work instructions

The accommodations taken on the part of workplaces regarding interactions occurring during instances where work instructions are given (Figure 2) and the efforts exerted by persons with disabilities show that numerous initiatives have been taken in cases of persons with disabilities related to cognitive function or sensory function. In such cases, including those with intellectual, mental, or developmental disabilities, corporations made efforts to revise information provided regarding work instructions so that the aforesaid information provided was simple. Furthermore, cognitive load was reduced by breaking down complex instructions and conveying this information in order or clarifying priorities. In some cases, the contents of the provided information were confirmed on the spot. Through these methods, the dissemination of mistaken information was prevented. The following efforts were commonly made by persons with the abovementioned disabilities in resolving challenges related to understanding work instructions: making requests for work instructions to be provided in easily comprehensible ways so that the said instructions could be understood, as well as asking questions and taking notes.

Moreover, in cases of persons with disabilities related to sensory function, such as visual, hearing, or language disabilities, corporations would ensure that work instructions were communicated accurately through communication methods that considered the media through which information was presented visually or orally. Efforts taken by persons with disabilities included general approaches taken regarding

work, such as asking questions or taking notes on the spot. Additionally, individuals utilized communication methods that considered how information was presented orally, especially in the case of persons with hearing/language disabilities; these persons also made efforts to request that corporations provide instructions in written form.



- 1 Simplify the contents of instructions and communicate this through simple language.
- 2 Where understanding is hard to obtain through oral communication, utilize communication methods that allow for easy comprehension by the involved employees (staff members), such as sign language, written communication, and translation apps.
- 3 Provide information orally and in written form to ensure that the contents of instructions are accurately understood and retained.
- 4 Where instructions are presented in the form of documents, provide information in ways that are visually appropriate for employees (staff members) with disabilities, such as using large font sizes or electronic documents.
- 5 Utilize diagrams and pictures to allow for easy comprehension of instructions.
- 6 Provide instructions via e-mail, online chat, or social media.
- 7 Establish person(s) in charge of giving instructions to avoid confusion of information.
- 8 Make priorities clear when giving multiple instructions.
- 9 Break down information and provide instructions in order.
- 10 Confirm, on the spot, that provided information has been understood.
- 11 No particular measures taken regarding disabilities in providing instructions.
- 12 Other
- 13 No answer

Note: The line graphs in Figure 2 illustrate trends in different types of disabilities, showing similar patterns across categories, but they do not represent the magnitude of change between the items.

Figure 2: Accommodations made regarding the exchange of information related to work instructions

B. Exchange of information in the workplace aside from that which is related to work instructions

The results from the questionnaire targeting persons with disabilities showed that 70% of individuals with hearing/language disabilities, and developmental disabilities experienced difficulties related to obtaining information in the workplace that was unrelated to work instructions. In the case of persons with visual, intellectual, and mental disabilities, the proportion of individuals who found the same to be difficult ranged from 40% to 50% (Figure 3).

Regarding the exchange of information unrelated to work instructions, initiatives were found to take specific directions, depending on whether employees' disabilities were related to cognitive or sensory function.

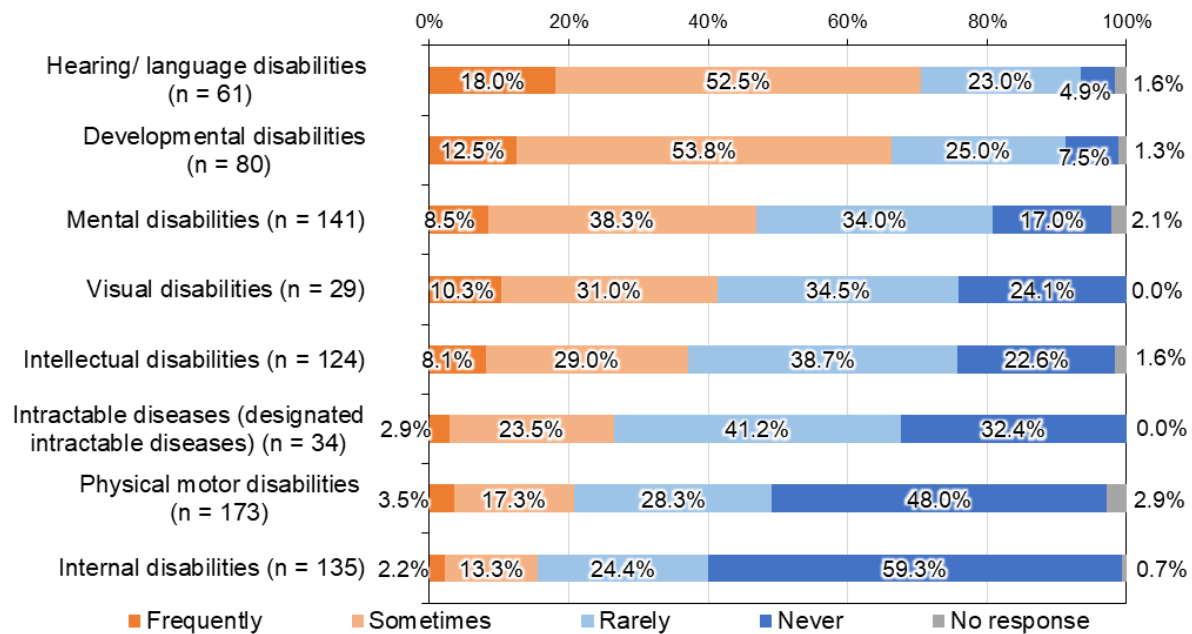


Figure 3: Frequency at which difficulties arose regarding communication in the workplace unrelated to work instructions

In cases of persons with disabilities related to cognitive function, such as intellectual, mental, and developmental disabilities, corporations took the following efforts to ensure that necessary information (unrelated to work instructions) was imparted to the persons with disabilities. Corporations would ensure that necessary information was made available to all parties, including superiors of the aforesaid individuals, during morning or scheduled meetings. Efforts taken by corporations to encourage the exchange of information between employees, superiors, and colleagues included conducting information exchange during morning or other meetings, as well as other general employment-related activities, such as welcome, end-of-year, and farewell parties. Furthermore, in some cases involving employees who did not prefer to socialize, accommodation was taken to not force these employees to join conversations, allowing them to spend time alone. The efforts taken by persons with the aforementioned disabilities in obtaining information unrelated to work instructions included the following: asking questions to superiors and colleagues, as well as building good relationships with superiors and colleagues so that the provision of information would take place naturally. In some cases of persons with mental and developmental disabilities, care was taken to maintain a peaceful state of mind by avoiding contact with more information than necessary, such as by spending breaks alone.

For persons with disabilities related to sensory function, such as visual, hearing, or language disabilities, efforts were made to utilize media and methods that would allow the involved individual to receive information with ease when disseminating information unrelated to work instructions, such as conveying contents of posters separately to persons with visual disabilities and providing written information to persons with hearing disabilities in the event of internal announcements. Moreover, consideration was taken to ensure that necessary information had been communicated to all parties,

including superiors of the aforesaid individuals, during morning or scheduled meetings. The efforts made by persons with the abovementioned disabilities included asking questions to and building good relationships with superiors and colleagues so that the provision of information would occur naturally. In some cases of persons with hearing/language disabilities, requests were made for accommodations to be made when information was provided orally, as well as for the use of communication methods that worked well with such persons. In other cases of persons with hearing/language disabilities, employees would spend breaks alone to avoid coming into contact with more information than necessary, maintaining a peaceful state of mind.

In the case of persons with physical motor disabilities, internal disabilities, and intractable diseases (designated intractable diseases), the influence of characteristics related to individual disabilities on the exchange of information related and unrelated to work instructions was limited; in these cases, accommodations and efforts were not widely implemented.

C. Exchange of information while teleworking

At the time this study was conducted, the proportion of individuals who had implemented teleworking was less than 10%, both in the group of individuals who responded to the questionnaire targeting corporations and that targeting persons with disabilities, respectively. As the number of individuals for each disability type was low, it was difficult to identify characteristics related to the exchange of information while teleworking based on disability type. Thus, individuals were divided into two groups, with the first being the *teleworking-continuous* group, who were continuously utilizing teleworking at the time the study was conducted. The second group was the *teleworking-discontinued* group, where individuals had prior experience with but were not teleworking at the time this study was conducted. Comparisons were drawn between both groups in analyzing factors that contributed to the continuous use of teleworking.

Consequently, regarding the questionnaire targeting corporations, many individuals in the teleworking-continuous group took considerations when providing work instructions while teleworking and that significant differences were found in a major portion of the said considerations. Conversely, the rate at which no special considerations were taken was found to be significantly high in the teleworking-discontinued group. Regarding the provision of work instructions while teleworking, individuals from the teleworking-continuous group rated communication as significantly easier than when working in the office, while those from the teleworking-discontinued group rated communication as being significantly more challenging than when working in the office. As for the results gained during the questionnaire survey targeting persons with disabilities, concerning how work instructions were comprehended while teleworking, individuals from the teleworking-continuous group rated communication as significantly easier than when working in the office. Individuals from the teleworking-discontinued group rated communication as significantly more challenging than when working in the office.

(2) Results of the interviews

Interviews were conducted with 14 corporations. In the case of 10 out of the above 14 corporations, interviews were also conducted with persons with disabilities working at the said corporations. As two of the above companies mentioned two individuals with disabilities, the total number of persons with disabilities who were interviewed was sixteen. In each case, various initiatives were found to be taken, either in the form of accommodations made at the workplace in relation to the exchange of information or efforts taken by the involved persons with disabilities. The information gathered during the interviews regarding the above-stated initiatives was organized based on two sets of criteria: first, whether the information provided was related to work instructions and, second, based on disability type—disabilities related to sensory function and those related to cognitive function.

A. Exchange of information related to work instructions

In cases of persons with disabilities related to sensory function, such as visual or hearing disabilities, the following accommodations were made in exchanging information related to work instructions: providing information using media and methods that made information accessible to the individual, designating a person in charge of giving instructions, establishing an environment where instructions could be provided with ease, changing the settings of ICT devices, and utilizing applications. Conversely, in the case of persons with disabilities related to cognitive function, such as intellectual, mental, and developmental disabilities, as well as higher brain dysfunction, the dissemination of information in ways that allowed for comprehension and organization of the said information, where confusion was minimized where possible, was prioritized. Specific examples of accommodations made included breaking down information while providing such information gradually, as well as paying attention to the timing at which instructions were provided. Other examples included performing demonstrations of how to conduct tasks, making instructions clear, and designating a person in charge of providing instructions. Regardless of disability type, many individuals with disabilities asked questions immediately to resolve their doubts in cases where not all information was understood. Notably, individuals made efforts related to the parties they asked questions to, as well as the timing at which questions were asked.

B. Exchange of information in the workplace aside from that which is related to work instructions

Regarding information exchange unrelated to work instructions, in the case of persons with disabilities related to sensory function, the use of media and methods that made information accessible to persons with disabilities was important, similar to when information regarding work instructions is exchanged. Specific examples included initiatives where the contents of on-demand corporate training would be made accessible through the use of subtitles or scripts for persons with hearing disabilities, as well as initiatives where other employees would walk alongside persons with visual disabilities in verifying information related to movement routes and those taken when commuting to work. Additionally, accommodations were made regarding the acquisition and communication of information in ways accessible for persons with disabilities. For example, staff members with hearing disabilities

could order food at a staff canteen by displaying a card with the names of dishes written on it. Regarding communication that took place over food and drinks after shifts, for persons with visual and hearing disabilities, accommodations and efforts were necessary with regard to participation at these sites where communication transpired, as well as the actual communication that took place. Such accommodations were brought up during the interviews.

As for accommodations made with regard to persons with disabilities related to cognitive function, initiatives that provided support concerning the organization and prioritization of information were important. During the interviews, information on initiatives such as reminding employees to check provided information, as well as progress management related to the handling of documents, was gained. Multiple interviewees with disabilities commented on the enjoyment and satisfaction they derived from actively participating in corporate events and activities while interacting with other staff members and related parties. Conversely, other individuals commented on how they preferred not to chat with other employees during breaks, choosing to spend time alone. Corporate interviewees mentioned during the interviews that they respected these decisions.

C. Usage of online communication methods

Information gathered regarding the positive influence exerted by online communication methods on interactions in workplaces at which persons with disabilities worked was organized based on the results of the interviews. First, information has become available as written records through the use of chat tools and corporate social media applications, allowing employees with visual disabilities to confirm information under configurations that make this information accessible. For employees with memory impairments, this also aids the avoidance of issues related to forgetting or mistaken instructions. Furthermore, some web conferencing systems include transcription features that make information accessible to employees with hearing disabilities.

However, many interviewees also commented on challenges related to the use of various online communication methods, as well as the significance of communicating face-to-face. Notably, purely written information might lead to misunderstandings due to information that may be hard to understand through e-mail or chat tools, as well as the characteristics of the recipient's disability. Additionally, some individuals with developmental disabilities expressed that they preferred face-to-face communication, while some with intellectual disabilities mentioned that they enjoyed working while communicating face-to-face.

(3) Discussion

A. Accommodations made regarding work instructions

Through the questionnaires and interviews conducted, it was found that tendencies regarding accommodations made based on the provision of work instructions differed according to disability type. For example, for persons with disabilities related to cognitive function, such as intellectual, mental, and developmental disabilities, corporations took the following efforts to ensure the accurate communication of work instructions. Corporations would take care to revise instructions so that the said instructions

were simple, and they worked to reduce cognitive load by paying attention to the amount of as well as priorities regarding information that was exchanged. Care was also taken to confirm instructions given on the spot. Regarding the cases of persons with disabilities related to sensory function, such as hearing, language, or visual disabilities, care was taken in ensuring that work instructions were provided accurately through methods and procedures that made information accessible to persons with disabilities.

B. Accommodations made regarding the exchange of information unrelated to work instructions

Initiatives taken regarding the exchange of information unrelated to work instructions in the workplace included those where persons with disabilities would be made aware of various information and notices, as well as initiatives where attempts were made to include persons with disabilities in social activities unrelated to tasks at work. Through the interviews, the following was found with regard to communicating information related to announcements or notices: information regarding movement routes and the locations of objects was useful to persons with visual disabilities, while the accessibility of training-related information was provided for persons with hearing disabilities. The interviews confirmed that persons with disabilities were included in various events and activities in natural ways. Additionally, information was gathered regarding specific instances where care was taken to respect the wishes of persons with disabilities to spend breaks alone.

C. Relationship between formal and informal communication

Analysis of the results gathered through the questionnaire showed a significant correlation between difficulties experienced by persons with disabilities regarding work instructions and that which was unrelated to work instructions. This correlation was significant even when the influence of personal attributes, such as sex, age, and disability type, was accounted for.

We also examined the existence of this correlation through the interview survey. As a result, several interviewees identified the following three points suggesting such a correlation: the personal networks formed through formal communication can also function through informal communication, communication methods that are effective in formal communication can also be applied to informal communication, and mutual understanding developed through informal communication can help make it easier for persons with disabilities to work in everyday formal situations.

(4) Significance and limitations of this study

The significance of this study is presented as follows. First, it comprehensively targeted persons with various disabilities. Second, it targeted corporations and persons with disabilities. Third, it could shed some light on the current situation surrounding teleworking at workplaces where persons with disabilities work. The limitations of this study and suggestions for further research include the following. First, future research must focus on the exchange of information while teleworking in greater detail. Second, regarding the usage of online applications, future research must explore the skills required by persons with disabilities and the specifics surrounding necessary accommodations, where research contents are tailored based on various disability types. Third, this study focused mainly on communication that took place between persons with disabilities, their superiors, and colleagues.

Further research should utilize an expanded research framework, where the communication occurring between the aforesaid individuals and support providers, family members, employees from other departments, and clients is also considered.

7 Relevant research products

- List of ideas related to the communication that transpires at workplaces where persons with disabilities work, 2025



<https://www.nivr.jeed.go.jp/research/kyouzai/kyouzai83.html>

