



## **Research on obtaining effective assessment and completion methods through three new work samples for “Makuhari Work Sample (MWS)”.**

(Research Report No. 175) SUMMARY

### **[Keywords]**

MWS

New Tasks

Makuhari Work sample

### **[Summary]**

In the research division of the National Institute of Vocational Rehabilitation, a new work sample of the "Makuhari Work Sample (MWS)" ("MWS New Work Sample") was developed in FY2019 (National Institute of Vocational Rehabilitation, 2019) and has been commercially available since the end of FY2020.

Although the new MWS work samples are particularly effective in assisting high-performing individuals with assessment, employment, and return-to-work, it was noted that there is a need to reduce the burden on caregivers associated with the use of the new MWS work samples.

Therefore, as a measure to reduce the burden on supporters, this research conducted research activities with the aim of developing a "utilization model" that gives an image of MWS new tasks and created the "A handbook for effective usage of New Work Sample for Makuhari Work Sample (MWS)".

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## **2 Research period**

FY2022 - FY2023

## **3 Structure of the Report**

Introduction Background, Purpose, and Methodology of the Research

Chapter 1: Questionnaire on Utilization Status

Chapter 2: Interview on Utilization Cases

Chapter 3: Prototype Handbook (Draft) Including Utilization Model

Chapter 4: Improvements to the Draft Handbook

Chapter 5 Trial Evaluation

Chapter 6: General Considerations

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## **4 Background and Objectives of the Research**

The Research Division of the National Institute of Vocational Rehabilitation has developed the "Makuhari Work Sample" (hereinafter referred to as "MWS"). The 13 types of work samples that make up the MWS (hereinafter referred to as "MWS Existing Work Samples") have been commercially available since FY2007. Subsequently, based on the results of a survey of users of the MWS Existing Work Samples, new MWS work samples were developed and have been available in the market since the end of FY2020.

The new MWS samples are more difficult than the existing MWS samples and consist of "Salary Calculation" as an OA task, "Proofreading" as an office task, and "Mail Sorting" as a practical task.

According to the National Institute of Vocational Rehabilitation (2019), one of the challenges associated with the use of the new MWS tasks is the "psychological burden on supporters of using the new MWS tasks," and the "time costs associated with processing the results" are reported to be barriers

to using the new MWS work samples. Information to reduce these burdens is currently being addressed through inclusion in the Implementation Manual. However, it is not clear whether this measure has reduced the burden, and it is necessary to consider measures to address the burden associated with the use of the new MWS tasks at local employment support agencies after understanding the status of its use and its tasks. Therefore, as a measure to reduce the burden associated with the use of new MWS tasks, this research decided to develop a "use model" that gives an image of how to use the MWS.

In conducting this research, the following three goals were set: (1) to examine the information that should be provided through the dissemination media for new work samples of MWS, (2) to create a prototype dissemination media for new work samples of MWS, including a utilization model based on the examination in 1), and (3) to complete the prototype dissemination media for new work samples of MWS created in 2), based on the opinions of employment support specialists and supporters at employment support organizations.

## **5 Research Methodology**

### **(1) Questionnaire on Utilization Status**

A questionnaire survey was conducted among agencies that had purchased new work samples of MWS to determine their track record of use and disincentives to use in cases where use has not progressed. The survey covered 52 local vocational centers for persons with disabilities (including branch offices; hereafter referred to as "local centers") and 23 offices other than local centers.

### **(2) Hearing on utilization cases**

In order to understand the status of the use of new MWS tasks in the field of employment support, examples of use were collected from local employment support agencies. The survey included the Vocational Center of the National Institute of Vocational Rehabilitation Center, four local centers, and an Office of Welfare Services for Persons with Disabilities.

### **(3) Prototype handbook (draft) including utilization model**

Based on the descriptions in the National Institute of Vocational Rehabilitation (2019) and the results of the utilization status questionnaire, the "Makuhari Work Sample (MWS) New Work Sample Handbook (Draft)" (hereinafter referred to as the "Handbook (Draft)") and the prototype of the handbook were developed.

### **(4) Improvement of the Handbook (Draft)**

Interviews were held with three experts with knowledge of new MWS tasks to get their opinions on the draft handbook prototyped in (3) above. Based on the opinions obtained during the interviews, the handbook (draft) was improved.

### **(5) Trial evaluation**

A draft handbook with improvements (hereinafter referred to as the "Draft Handbook") was prepared and distributed to local employment support agencies (hereinafter referred to as "Cooperating

Agencies") for a trial evaluation to assess its effectiveness. The following chart shows the process of the trial evaluation. First, the flow of the trial evaluation was explained to the Cooperating Agencies (a), followed by a confirmation of their readiness for the trial evaluation (c), and then the Cooperating Agencies were asked to provide support using the new work samples of MWS (d). After the completion of the support, the Cooperating Agencies will fill in the information on the subject of the support on the implementation record sheet and fill in the evaluation of the handbook (draft) on the questionnaire (e). Finally, an interview (f) is conducted to confirm the responses to the implementation record sheet and the questionnaire.

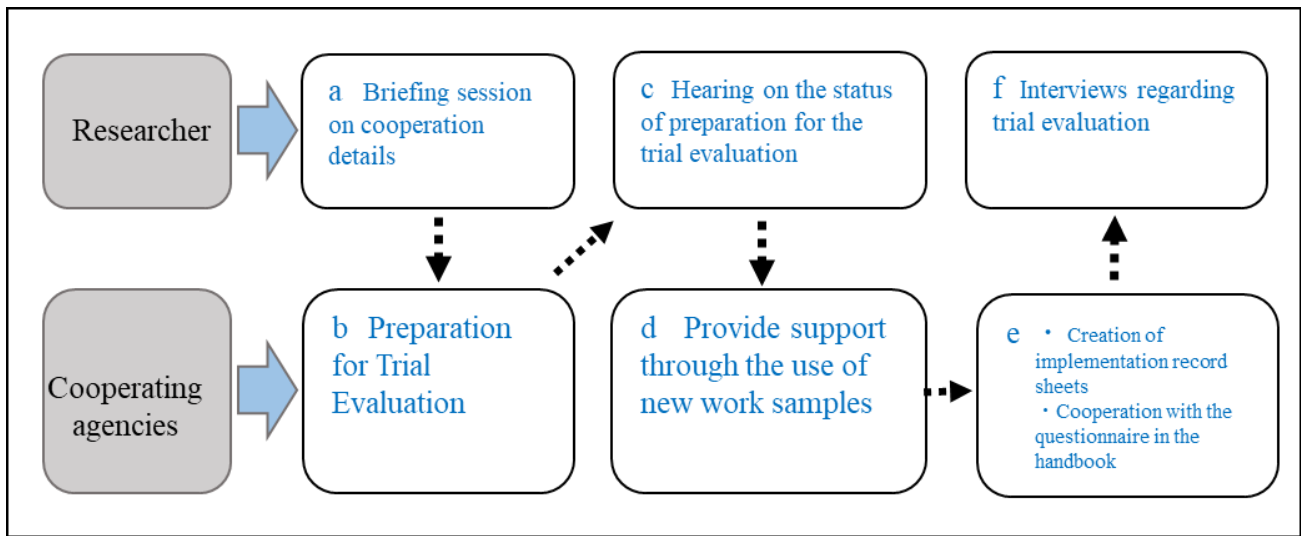


Figure: Trial Evaluation Procedure

Based on the information obtained from the above trial evaluation, improvements were made to the draft handbook.

## 6 Details of the Research

### (1) Questionnaire on Utilization Status

In the Questionnaire on the Utilization Status, (1) 14 respondents, or 14 locations, responded from offices other than the local centers responded, and (2) 85 respondents, or 48 locations, responded from the local centers. Compared to the local centers, the number of responses from offices other than the local centers was small.

The small number of responses from offices other than the local centers can only suggest a trend, but we found that although a high percentage of Salary Calculation and Proof-reading were purchased, the utilization rate was 30-40%, indicating that they are not being fully utilized.

At the local centers, Mail sorting (utilized by 75.3% of respondents) was the most utilized for support, followed by Salary Calculation (utilized by 52.9%), and Proof-reading (utilized by 30.6%) was the least utilized.

As for the reasons for not utilizing the system, more than a majority of both local centers and non-

local centers responded "I am not familiar with the implementation method of the assignment" throughout the three tasks, indicating the need for countermeasures. By type of assignment, "There are no service users to whom the assignment applies at my institution" was the most common response for Salary Calculation and Proof-reading.

In terms of effectiveness of use, local centers rated highly the effectiveness of "sharing readiness" support for returning to work or finding employment and "improving job performance" support.

Regarding the method of support using new work samples of MWS, the main method of utilization was to provide temporary support and feedback in a face-to-face meeting with the supporter, and it was seen that the method of utilization had not yet reached the state of understanding the characteristics of the disability and learning completion methods.

## (2) Hearing on utilization cases

Nine cases were collected as a result of the interview. In the collected cases of use, the Salary Calculation and Proof-reading were aimed at those who had a certain level of ability in terms of understanding the work samples, etc. In addition, the purposes of support through new work samples of MWS were categorized as ①evaluation of the possibility of adaptation to the desired occupation, etc., ②stress management and understanding of characteristics, ③evaluation of competence aspects, ④confirmation and practice of complementary methods, and ⑤training of concentration and other skills.

In addition, opinions on new work samples of MWS included the difficulty of subbooks and the fact that the work time may be longer due to the difficulty of tasks, which was used as a reference when creating the utilization model.

## (3) Trial creation of a Prototype handbook (draft) including utilization model

A utilization model was created. Then, since it was considered that although the utilization model can provide an image of utilization, it is difficult to understand how the contents of the utilization model are related to the specific support flow only by the utilization model, it was decided to create utilization examples as a concrete explanation of the contents of the utilization model. The utilization examples were created based on examples published in the National Institute of Vocational Rehabilitation (2019).

The results of the Questionnaire on the Utilization Status regarding hurdles to utilization indicated a need for information regarding the target population and effectiveness of the new work sample of MWS, as well as the content of the implementation handbook.

Based on the above considerations, a prototype handbook (draft) has been developed that includes utilization models, usage examples, and knowledge information on the design and implementation methods of new work samples of MWS.

## (4) Improvement of the Handbook (Draft)

In the interviews with experts, there were opinions such as "I would like to see the handbook show how it can be used at local employment support offices," "It would be better to make the contents easier to understand by providing explanations with charts and diagrams," and "It would be good if the

handbook included information on how to motivate and otherwise guide the target population". Based on the opinions heard at the hearing, the committee discussed the structure of the handbook (draft), and decided to: 1) not explain in the handbook (draft) what is already explained in books that have already been published, but to include an introduction to those books; 2) summarize examples of use in a "collection of use cases"; and 3) provide examples of how to guide the target audience. The section has been revised to include a section titled "If you have trouble dealing with the subject." In addition, the content of the utilization models was rearranged so that they can be compared from sample to sample.

In the process of improving the Handbook (Draft), we prepared and published a collection of case studies based on the examples of use collected at the hearing on the examples of use described in (2) above.

#### (5) Trial evaluation

In the trial evaluation, four supporters read the draft handbook and provided support to eight users with new work samples of MWS at three Cooperating Agencies. Afterwards, a survey on the effectiveness of the draft handbook was conducted by means of a questionnaire and interviews with the supporters who provided the support.

In response to the question "Q1: Was the content of the handbook helpful in providing support using new work samples of MWS?", the respondents answered either "Very helpful" or "Somewhat helpful. To the question "Q2: How effective was the use of the handbook?", the responses were either "very helpful" or "somewhat helpful", except for one respondent who answered "I could not have a very concrete image" of when to use the new work samples of MWS. The other two responses were "I was able to have a very concrete image" or "I was able to have a somewhat concrete image."

To the question "Q2(5) How well did the manual resolve your questions when they arose during the implementation of support with new work samples? The results of the questionnaire responses indicate that except for one respondent who responded, "not so much", the responses were either "completely/mostly resolved" or "somewhat resolved". Based on the results of the questionnaire responses, it was determined that the content of the draft handbook was generally effective in providing a picture of its use.

In terms of comments on items that could be improved in the draft handbook, some commented that "it would be good to show the relationship between errors and disability characteristics" with regard to the utilization model, and "if you are having trouble with the subject," "examples of responses consistent with the implementation steps for new work samples of MWS" should be included.

Table 1 shows the results of interviews with supporters who cooperated in the trial evaluation, in which they were asked about the impact of the draft handbook on the support provided by the Cooperating Agencies. Supporters commented that they "found that they could see different aspects of users and will continue to provide new work samples of MWS to users" and "more staff will use new work samples of MWS". These opinions are expected to have an impact in the direction of "more

opportunities to use new work samples of MWS," "more supporters to use them," "more supporters to use tasks they did not use before," and "more detailed explanations to the subject.

Table 1: Impact of reading the draft handbook by staff of Cooperating Agencies on support, etc.

Number	
①	• Regarding the future use of new MWS work samples, we have found that by creating a manual like this, we can look at different aspects of the users. We plan to have users do this in the future.
②	• I believe that the use of MWS new work samples will expand in the future. We will try to utilize the system for work samples other than mail sorting. I thought that one way to utilize the system might be to give the users an image or to use it as a work experience rather than as an assessment of the subject's type of work or potential.
③	• In the corporation, we have been using MWS existing work samples for some time and have been using MWS new work samples for about two years. However, not all staff members can use MWS new work samples. I think a handbook would make it easier for staff members who are not familiar with how to use the system.
④	• I think such a handbook would help to explain the process to other staff members. It is also conceivable that more staff members will use the new MWS work samples. Since they are more difficult for me than the existing MWS work samples, I think the examples in the handbook will make it easier for me to think about how I should view such errors and whether they can be used for such consultation subjects.  • When I do a new MWS work sample, the instructions and wording is to look at the subbook, and if there are any questions, the same way to return the information is used. However, I think it is good that the handbook makes it easier to explain what the new MWS work sample is for.

#### (6) Considerations

The "Makuhari Work Sample (MWS) New Work Sample Application Handbook" (hereinafter referred to as the "Handbook") was prepared by conducting research activities in accordance with the three goals for conducting this research described in Section 4 above. Table 2 shows the structure of the handbook.

Table 2: Structure of the Handbook

<b>"I want to know about new work samples."</b>	
What is a new work samples?	
Characteristics of new work samples	Enhanced functionality / Identifying and addressing issues / Setting a higher difficulty level than existing issues
Reference materials to acquire knowledge on implementation methodologies	"I would like to see a video overview of the new work samples/ I would like to know about the procedures for implementing a new work sample / I would like to give a brief overview of the new work sample to the subject / I would like to confirm a simplified version of the teaching and response to the subject at the support site / I would like to confirm the content of errors and how to supplement them / I would like to know about the ABA method used in the Makuhari Work Sample / I want to know about the background theory of the Makuhari Work Sample.
Considerations on the use of new work samples	Difficulty and stress of the task / Use multiple combinations of new work samples / Provide a full overview of the work / Use existing tasks / Share the purpose of using new work samples with the subject / Points to keep in mind when using the simplified version / How to use the simplified version and the training version separately
Work instructions based on the subject's ability to understand the work samples	
<b>"Points to keep in mind when using a new work samples"</b>	
Utilization models	Common items of the Simplified Version Utilization Model and the Training Version Utilization Model / (1) Simplified Version Utilization Model / (2) Training Version Utilization Model
	Cases in which the participants recognized the necessity of complementary methods / Cases in which the participants understood their own characteristics and organized their hopes for employment / Cases in which the participants gained confidence in complementary methods, which led to employment / Cases in which the participants became aware of fatigue and stress toward returning to work / Cases in which the participants confirmed effective support methods / Improved work performance and gained confidence through learning complementary methods Cases
<b>"When you are not sure how to support the subject"</b>	
At the start of the support	(1) Tendency to overconcentrate is observed / (2) Complain about discomfort with the work sample / (3) Time passes without progress in understanding the work sample
During training	(4) Feedback on errors made them feel more anxious / (5) Unable to make a decision to move to the training version / (6) Unable to gain acceptance for suggestions on how to supplement the training.
At the feedback of the results	(7) Negative feedback is heard / (8) Reflection is not deepened / (9) Unstable due to acceptance of results

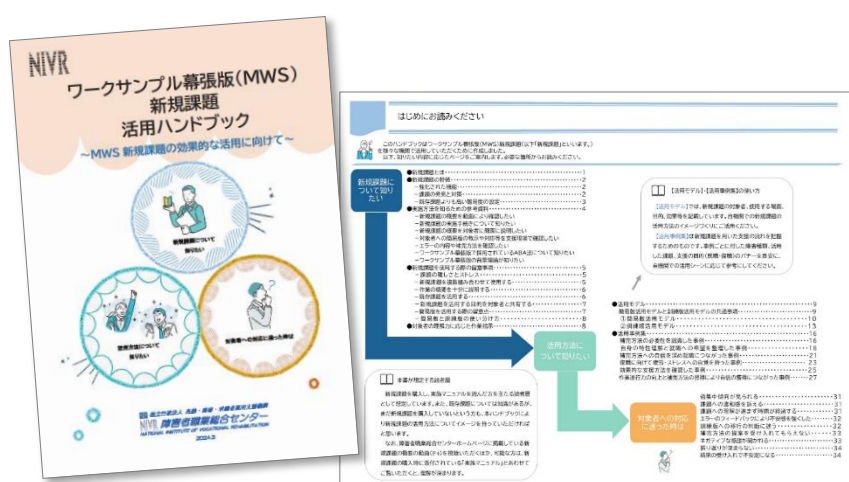
The purpose of this research was to reduce the burden on supporters when implementing new work samples of MWS. The results of the trial evaluation indicate that the handbook was generally effective in providing an image of how-to use of new work samples of MWS. It is expected that supporters who have experience using new work samples of MWS will make more effective use of the handbook, and that supporters who have never used new work samples of MWS will make more effective use of the handbook in their support.

Limitations and challenges of this research include the following.

- (i) To compile the examples of utilization in the handbook with actual examples collected, it is necessary to accumulate information on the utilization by disseminating new work samples of MWS.
- (ii) The handbook is designed to be as easy to understand as possible, but in order to make it easier for busy employment support agencies to understand the contents of the handbook, it is considered effective to use the handbook in combination with video clips.
- (iii) "Support for the acquisition of self-management skills" in combination with MSFAS and other tools included in the "Total Package to Promote Workplace Adjustment" cannot be fully described in detail in the handbook, so it is necessary to refer to related documents.

## 7 Relevant research products

- Makuhari Work Sample (MWS) Application Handbook, 2024



(<https://www.nivr.jeed.go.jp/research/kyouzai/kyouzai80.html>)

- Research on the Effective Use of Vocational Rehabilitation Tools Corresponding to the Diversification of Disabilities, Research Report №164, 2022.
- Total Package Research Text/Transfer Program Instructor's Guide, 2022
- A Collection of Practical Cases Using the Total Package of Tools to Promote Workplace Adaptation, 2022
- Basic Research for Revision of the Makuhari Work Sample (MWS) for Diversification of Disabilities, Document Series № 72, 2013

## [References]

- Development of Vocational Rehabilitation Support Tools for Diversification of Disabilities (Part 2)
- Development of Makuhari Work Sample (MWS) New Work Samples -, Research Report №145, 2019