Challenges in DX ~ Doing what we can (できるしこのDX)~



Motohiro Takeya Japan-Taiwan University Presidents' Forum, July 16, 2025

Education DX

- Introduction of digital textbooks
- Use of learning contents and online tools for active learning
- Digitization of teaching materials through platforms such as learning management system
- Development of remote access environments for off-campus clinical training
- Promote BYOD (Bring Your Own Device)

etc.

Operations and Management DX

- Digitization of meeting documents and others (promoting paperless initiatives)
- Digitalization of processes such as electronic payments and applications
- Digitalization of workflows involving manual tasks or data entry

etc.

Research DX

- Implementation of a research information management system
- Utilization of AI, open science, and data-driven research
- Conducting training on programming and no-code tools

etc.

DX Infrastructure Development

- Improvement of Wi-Fi environments
- Upgrading file servers with a view to cloud integration
- recruitment of personnel who can contribute to the promotion of DX initiatives
- Securing a budget framework for the systematic promotion of DX initiatives

The COVID-19 pandemic accelerated the adoption of DX

Implementation of the 'manaba' LMS by Asahi Net, Inc. (2020.10 \sim)

- <Learning Management System>
- Presentation of lecture materials online
- Uploading videos to YouTube
- Report submission
- Exams and grading
- Course surveys
- Group work
- Active learning etc.

"manaba" cloud-based LMS and e-portfolio platform <€

<e-portfolio platform>

- Two-way interaction between Teachers and students
- Grade information
- Individual academic advising
- Extracurricular activity records, etc.

Outline of Kumamoto Health Science University

<Student body size: Total 1,666>



Faculty of Health Sciences 1,567

Medical Technology
Image: Nursing Rehabilitation
[PT, OT, ST]

- Graduate School of Health Sciences (master's course) 34
- Advanced Course in Public Health Nursing 20
- Midwifery Course 21
- Certified Nurse Course 24

<Number of Academic Staff 111>

DX initiatives specialized in healthcare education

<Department of Medical Technology>

Use of the Virtual Slide System in Cytology Training

- Various cytology specimens are digitized into a virtual slides.
- Cytology virtual slide data can be observed simultaneously by all students, each student can independently navigate the view

Utilize this system for online education for cytotechnologist exam candidates outside the university.

<Department of Nursing>

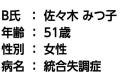
Development of Original Interactive Digital Contents

- Recreation of patient interaction scenarios through role-playing by academic staff, followed by video production.
- · Utilization during pre-hospital practice exercises.
- · Uploading to 'manaba' enables pre-study and review at home.





Virtual Slide System



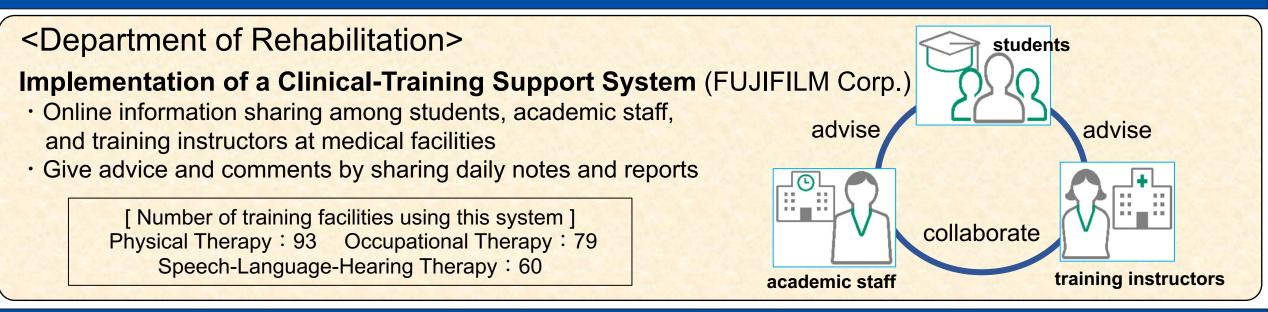


事例資料を読んで佐々木さんの状況を把握しましょう

Hamamatsu Photonics K.K.



DX initiatives specialized in healthcare education



DX promotion structure at our university

<Establishment of a DX Promotion Office>

[Main task]

- Planning for the promotion of DX
- Monitoring the progress of implementation
- Checking the status of information security management
- Organizing training sessions on digital technologies for faculty and staff etc.

[Members]

- Vice Presidents
- Deans of Faculties
- · Chairs of educational committees
- DX expert faculty member (appointed by the President)
- · Director-general of the administrative office
- · Deputy director-general of the administrative office etc.

