



A Content Development Model and Implementation for
Context-Responsive Micro-Credentials in Higher Education
/ KAKENHI (International Collaborative Research)

Road to Microcredentialing at Ehime University

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Typical Features of Micro-credentials

- Shorter period of learning
 - 1 – 3 learning hours at minimum
- Portability by digital credentials
 - Certification can be recognized across institutions/programs
- Stackable for macro-credentials
 - Micro-credentials can be a part of Macro-credentials
- Contents for reskilling of workers
 - Local needs
 - Technology Emergence (e.g. Chat-GPT)

Challenges in MCs

- Direct value to workplaces
- Direct evaluation of educational effects
 - Ex) Certification of statistics course should qualify his/her ability to do statistical jobs in real work
- Emergence of new technology, disasters would suddenly change the learning needs
- Procedures to recognize the contents and attainment level of credit can be manual and time-consuming process

Three project goals

A: Context-responsive content development model

- Propose a model to answer local and global needs in both chances and crises

B: International business model

- Explore the balance investment and its return
- Establish a feasible business model for internationally developed programs

C: Digital course quality assurance system

- Developing a decentralized system to evaluate quality of course contents using blockchain technology

Digital Technology related with MC

- Digital Representation of certificates
 - Substituting paper certificates
- Digitally information-stored certificates
 - Digital Badges
- Decentralized quality assurance
 - Blockchain technology is incorporated

Digital Badging in Japan: Open Badge Network



- Almost the de-facto standard private association for DB in Japan
- Ehime U will join this network soon for a certificate of ICT/Data Science/AI literacy program as a part of general education

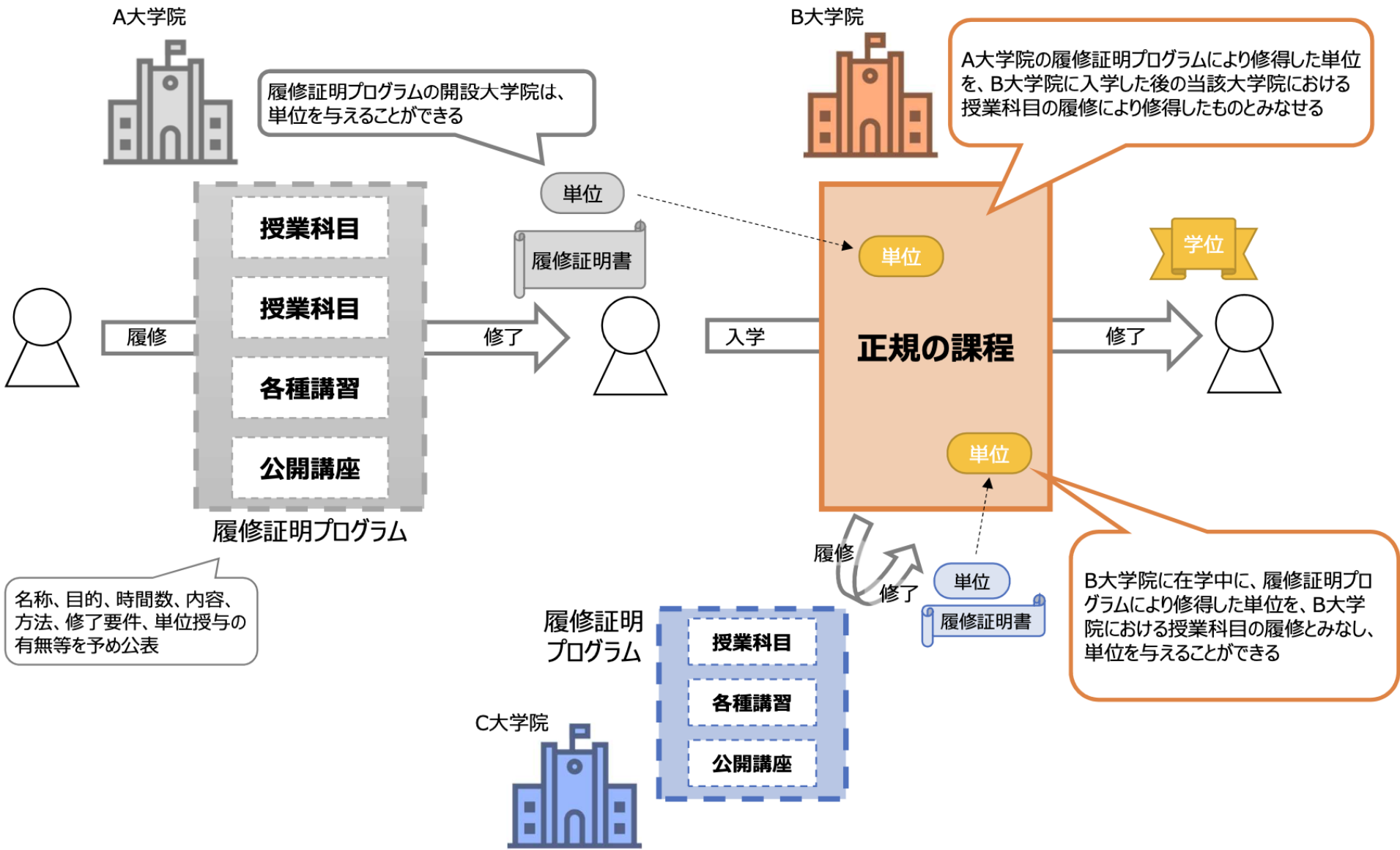
MCs Preparation in Japanese government

- Council for the Implementation of Education Rebuilding (a private advisory board at the time) reported in 2021:
 - To promote recurrent education that meets the needs of society and economic activities, the government should promote initiatives that are accessible to more people, such as the active use of distance/online education and the provision of **micro-credentials** that allow students to study separately for individual units, with regard to advanced professional education in graduate schools. In doing so, we will promote initiatives that are accessible to a greater number of people. In doing so, we will consider how to create a flexible system that allows students to obtain degrees by accumulating credits, and how to ensure international acceptability.

Certificate Programs in Japanese Higher Education

- In 2022, Awarding credits for certificate programs at graduate schools was allowed

大学院における履修証明プログラムへの単位授与・認定（イメージ）



What's next in Japan?

- Still most endeavors are domestic
- Need for decentralized quality assurance
 - Difficult to control all the quality of MCs
 - Good quality MCs would