Innovation is expected to bring the task automation and changes in styles of work.

Impact of innovation on the labor market

The development of new technologies such as AI (Artificial Intelligence) would automate routine tasks, while the development would also increase the demand for the jobs that require greater expertise or communication skills.

Introduction of the new technologies may also allow more people to choose more flexible work styles including telework.

To embrace innovation, flexible responses of universities and enhancing in-house trainings are critical.

1. Need for developing IT professionals

IT professionals are in short supply, and they must be developed. As IT skills become obsolete quickly, universities must assume greater roles including recurrent education.


2. In-house training and its effects

Promoting self-development opportunities, such as recurrent education, would make in-house training more effective to raise productivity.

Sources: Cabinet Office (2018) “Attitude Survey of Companies on Work Style and Education & Training”.

(1) Share of IT professionals among employees

(2) Where did you learn skills needed for current work?

(3) Share of training hours (OJT & Off-JT) to total work time (distribution)

(4) Companies’ human capital investment per worker (ave.)

(5) Effect on a 1% increase in human capital investment to labor productivity
2-3. Re-learning of Adults in the Era of the 100-year life

Self-development is effective. More and better opportunities for re-learning and well-designed appraisal systems will be crucial.

1. Effects of self-development

Self-development (re-learning) is likely to benefit workers. But in Japan, fewer learn again. Encouraging adults to re-learn is critical.

1. Change in annual income after self-development (employees)

2. Change in possibility of being employed after self-development (unemployed)

3. Share of those learning at educational institutions (Age 25-64)

Sources: Keio University "Japan Household Panel Survey(UHPS/KHPS)”, OECD (2017) "Education at a Glance 2017".

2. Challenges to encourage re-learning

What is critical: universities should offer opportunities for more practical and high quality recurrent education; good work-life balance should be facilitated; and companies should fairly appraise self-development.


(4) Important aspects of the curriculum for recurrent education (viewpoint from adults and universities, multiple responses)

- In-depth study of specific field
- Cutting-edge theme
- Knowledge & skills for a range of jobs
- Knowledge & skills for specific jobs
- Deep insight based on knowledge

Different point of focus between adults and university

(5) The effect of 1% decline of working hours to other activities (regular employee, weekday)

A 1% decline in working hours of those engaged in self-development leads to a 0.36% increase of time for that.

Shorter working hours deliver more time for self-development, etc.