Use of Information Technology in the Development of IT Human Resources
- Establishment of an Occupational Database and International Collaboration -

September 20, 2002

Kazuko Yuma
Research Analyst
Institute for International Socio-Economic Studies
Plan of Presentation

1. Objective
2. The broadband age in Japan
3. The Situation of the Japanese Labor Market
4. Need for an Occupational Database
5. International Collaboration in the Development of an Occupational Database
6. Conclusion
1. Objectives

- How to develop IT human resources for Japan’s ascendancy to be the leader in the world?
- How to use of Information Technology in the Development of IT Human Resources?

Development of IT human resources on an Occupational Database
2. The broadband age in Japan

The Ministry of Public Management, Home Affairs, Posts and Telecommunications, 2002 White Paper - Information and Communications in Japan
2. The broadband age in Japan

The Ministry of Public Management, Home Affairs, Posts and Telecommunications, 2002 White Paper - Information and Communications in Japan
2. The broadband age in Japan

**E-Japan Priority Policy Program-2002**

- Ensuring of security and reliability on advanced information & telecom networks
- Digitization of administration and application of IT in other public areas
- Facilitation of e-commerce
- Promotion of education and development of human resources
- Formation of the world’s most advanced information & telecom networks
3. The Situation of the Japanese Labor Market

The unemployment rate

The Ministry of Public Management, Home Affairs, Posts and Telecommunications, Labor force survey
### 3. The Situation of the Japanese Labor Market

<table>
<thead>
<tr>
<th>職種</th>
<th>需要（求人）</th>
<th>供給（求職）</th>
<th>需給ギャップ</th>
<th>求人倍率</th>
</tr>
</thead>
<tbody>
<tr>
<td>021 営業（法人新規）</td>
<td>99,535</td>
<td>10,000</td>
<td>▲ 89,535</td>
<td>9.95</td>
</tr>
<tr>
<td>022 営業（法人固定）</td>
<td>45,037</td>
<td>6,000</td>
<td>▲ 39,037</td>
<td>7.51</td>
</tr>
<tr>
<td>004 業務</td>
<td>28,522</td>
<td>6,000</td>
<td>▲ 22,522</td>
<td>4.75</td>
</tr>
<tr>
<td>031 電気通信技術者</td>
<td>28,996</td>
<td>17,000</td>
<td>▲ 11,996</td>
<td>1.59</td>
</tr>
<tr>
<td>040 土木設計</td>
<td>7,941</td>
<td>5,000</td>
<td>▲ 2,941</td>
<td>1.59</td>
</tr>
<tr>
<td>042 電気通信技術者</td>
<td>5,647</td>
<td>3,000</td>
<td>▲ 2,647</td>
<td>1.83</td>
</tr>
<tr>
<td>050 ネットワーク系</td>
<td>12,965</td>
<td>12,000</td>
<td>▲ 965</td>
<td>1.08</td>
</tr>
</tbody>
</table>

**Employment mismatch!**
4. Need for an Occupational Database

Cases of career-seeking based on the type of job are still in the minority.

There is no clear job description based on a Job Skill and Qualification System.

The practice of defining the scope of job description and the occupational skills of the individual in clear-cut terms has not taken root.
4. Need for an Occupational Database

- Change of job
- Move within the company

**Occupational Information Database**

- Type of job
- Job descriptions
- Knowledge and skill
5. International Collaboration in the Development of an Occupational Database

Occupational Information in Japan

- the Occupational Classification by the Ministry Of Labor
- CD-ROM as the Occupational Handbook

- An organization has been created in the form of the Public and Private Sector Occupation Information Investigation Committee.
- The occupational information database are being made to establish
5. International Collaboration in the Development of an Occupational Database

Occupational Information in U.S.

- Dictionary of Occupational Titles (DOT)
- O*NET (Occupational Information Network)

- The general portal site “America’s Career Kit”
  - O*NET
  - America’s Job Bank
  - Career InfoNet
  - America’s Learning exchange
  - Service Locator
5. International Collaboration in the Development of an Occupational Database

Occupational Information in China

- the Occupational Ability Test System
- The Database of National Test Questions for Occupational Ability Tests

- At the present stage, as many as 50 job types that are in common social demand are recorded on the database.
- This is amplified by including IT-related occupational titles in the near future.
5. International Collaboration in the Development of an Occupational Database

- IT field
  - Fast rate of technical innovation
  - Job descriptions are globalizing.

Occupational data can easily be shared.

International Collaboration in the Development of an Occupational Database
5. International Collaboration in the Development of an Occupational Database

International Sharing of the occupational information

Sharing of the Qualification Tests
Ex. “Asia Common Skill Standard Initiatives for IT Engineers”

Sharing of the e-Learning contents
Ex. The idea of a “Virtual University.” in KOREA
6. Conclusion

- By developing an occupational information database in the IT field, it will be possible to build a basis for the development of human resources in the IT area.
- The ability to share occupational information internationally among the interested countries also opens up a potential for sharing information in the areas of Qualification Tests and e-Learning.
- This would promote the development of human resources in the IT areas and create a greater measure of international mobility in the IT field.
Thank you very much!!