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CONTENTS

TREATISE:

- Research on Classification of Productive Skills(4)
— Correspondence of Car Manufacturing Process to New Skill Patterns —
..... Kazuo MORI, Yasuyuki KIKUCHI, Hajime HARADA (1)
- The Content and The Structure of Vocational Training Instructor's Work
— Factor Analysis of Investigation Result of Vocational Training Instructor's Work —
..... Kazuo MORI (2)

RESEARCH NOTE:

- The logic of the enactment of the Vocational training law
..... Kazutoshi TANAKA (3)
- Basic research on vocational qualification of vocational performance development
..... Sakae SUNADA and Touru KIMURA (4)
- Present state and task of SFC
— Description law of a new sequence control —
..... Masao HONDA (5)

REVIEW:

- Teaching materials specification for a system unit training
..... Yoshiyuki YAMAURA (6)

THE INSTITUTE OF RESEARCH AND DEVELOPMENT
POLYTECHNIC UNIVERSITY

4-1-1, Hashimotodai, Sagamihara, Kanagawa, Japan.

Research on Classification of Productive Skills (4)

— Correspondence of Car Manufacturing Process
to New Skill Patterns —

Kazuo MORI

Yasuyuki KIKUCHI

Hajime HARADA

The machine and the device are diversified and made the compound but the research which clarifies the pattern of the productive skill is few. We executed the investigation for this. The skilled workers were classified from the result of factor analysis in this research. The factor scores of all samples were calculated and the clusters were analyzed. Moreover, we examined the factor score distribution according to each factory.

As a result it was found that at a factory, vocational ability is demanded not as a unit but as a compound. Moreover, the obtained patterns must be matched with conventional names. For instance, we can combine a factor name, a process name and a name of the main skill. And, this naming may be the most practical and functional.

The Content and The Structure of Vocational Training Instructor's Work

— Factor Analysis of Investigation Result of Vocational
Training Instructor's Work —

Kazuo MORI

The content of the work of the vocational training instructor has been discussed so far. However, it was only discussed in abstract terms in most cases. Discussions from specific aspects were rare. The structure of the content of the work has not been examined from the point of view of the ability. Then we decided to clarify it by applying the multivariate-analysis to the investigation result.

We selected 22 facilities with the training results for 10 years or more as the investigation objects. The investigation was conducted from October 1993 to February 1994. We calculated the factor scores of the samples and analyzed these scores by the cluster analysis.

The content of the work of the vocational training instructor is composed of the following four factors. They are "instruction and evaluation factor", "learner handling factor", "HRD support factor", and "course plan factor". There were few differences among the past, the present, and the future in this tendency. This tendency was pointed out so far but this report clarified it demonstratively. Moreover, the content of work was divided into three clusters when hierarchized.

The logic of the enactment of the Vocational Training Law

Kazutoshi TANAKA

The Vocational Training Law in 1958 is the unified law of the Employment Security Law and the Labour Standards Law. The former is for vocational training in public institutions and the latter for that in industries. Though both laws differ completely in idea and purpose, the laws were unified. The logic to unify the laws is not clear. The purpose of this paper is to clarify the logic.

Originally vocational training in public institutions was enacted for the unemployed, but a lot of young people participated in vocational training from the first enactment of the law.

Vocational training, therefore, could easily be changed to that for the skilled worker upon the return to prosperity.

Enterprises encouraged the vocational training in the job category of traditional industries at first, but with good times they changed to attach importance to that in the job category of heavy industries.

As a result, the trainees in both types of training were young and the job were in the trainings category for the heavy industries. In a word, there is no difference in the actual training in both cases. This is why the training in both public institutions and industries was unified. The logic which the two laws differ in the outline, but has the same purpose, unified the laws.

Basic research on vocational qualification of vocational performance development

— Research on a new qualification system (DREAMS)
based on vocational qualification theory —

Sakae SUNADA
Touru KIMURA

To develop vocational performance, careers must be carefully designed and enriched.

We focused on the functions, roles, and effects of a vocational qualification system, and considered examples of DREAMS, a new qualification system based on vocational qualification theory.

We Concluded our research to be the following:

- 1) This vocational qualification system provides “performance recognition” and “career progress” functions.
- 2) For lifetime study and performance development, the system has an alternative function to “Abacus class.”
- 3) In its social role, the system affects jobs, specialization and socialization —
— the key concepts in personnel reform. The system satisfies the vocational qualification requirements of personnel reform.
- 4) The positioning of careers requires educational consideration depending on the stage of a career.
- 5) One major effect of the system is that we can expect to have “loyal and competent personnel.”

Present state and task of SFC

— description law of a new sequence control —

Masao HONDA

SFC is the abbreviation of Sequential Function Chart and it is a new description form of “sequence state movement figure”, PC (programmable controller).

Though SFC has various many merits, and is greatly expected, a program description form of PC ladder language has become the mainstream in Japan.

In Europe, making practicable of SFC is advanced, for example, SFC tool of third party made.

(in 1995 as JIS-B3503 presentation for an industrial technological academy), PLCopen, OMAC, and a group of a worldwide scale of OSACA strikes and takes it out for the propulsive of SFC (IEC standardized conformity) that is a new PC program as being standardized at IEC 848 and IEC 1131-3 with a standardized point.

For this ladder language has been unable to respond to getting large capacity of recent program, getting a high speed, standardization, getting structure, getting a re-utilization and an appeal such as getting conservativeness and so on.

For a recent sequence control (PC) system construction, must be thought of considering it as getting complicated, getting an altitude, getting large capacity and getting conservativeness of a control content.

As including improvement and reliability of productivity, it is necessary to examine denotation and position of SFC has inside PC language a validity of a description of a control system of SFC, how a program should be in order to plan improvement in quality.

Teaching materials specification for a system unit training

Yoshiyuki YAMAURA

Vocational capability development facilities of The Employment Promotion Corporation for a system unit training has enforced, Ability-course of a short term course of a ordinaly training from in Heisei 5-fiscal-year with a system unit training form. Ability-course up to now enforced a plan in every facilities. Ability-course was supposed to enforce it with 8 sections in nationwide and similar content from this current year.

A training subject of Ability-course is for those who hope to find employment by an employment insurance recipient. A set up of a section considers an aged people in order to correspond to present employment situation.

This training form has is a characteristic difference from a conventional training form for teaching materials of. For example, it is a practical science 1 physique, unit completion type. Newly teaching materials for a system unit training form got necessary. We established “system unit training teaching materials making work sectional meeting” as project research for making a teaching materials. Then, we made unit teaching materials, with a work sectional meeting using a common teaching materials specification.

I introduce an useful teaching materials specification with this treatise for a summary and a unit teaching materials making of a system unit training form.