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TREATISE

- A Study for The Methodology of Productive Technology Education
..... K.MORI, Y.KUGE
- An Analysis for Trainee's Reasoning : The Possibility of Inquiry
Training S.SAKURAI
- The Training Needs in Automation of Production System
..... Y.NISHIMI
- Reorganization of Public Vocational Training Facilities : After
the Establishment of the Unemployment Insurance Law
..... K.TANAKA

RESEARCH NOTE

- On a Consciousness Survey on CAI I.KITAGAKI
- The Dialogic Aspect of Up-Grading Training K.TODA
- Possibility of Information Retrieval Training in Public Vocational
Training Institutions (I) T.YAGI
- Research for Leaser Barcorde System by way of "Accountant
Business" softwave derelopment
..... H.FUKUMURA, T.TAKAHASHI
- The Relationship between "Sbject Matter" and "Lerner" in "The
Child and Carriculum by J.DEWEY T.SHIMOYAMA

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A Study for The Methodology of Productive Technology Education —Hypothesis of Teaching Method and The Experiment—

Kazuo Mori, Yasuyuki Kuge

The technology innovation has been taking place so drastically that new methodology of productive technology education is demanded to meet the change. In this paper, we shall try to figure out the methodology.

The methodology, we proposed, has 3 main characters, which are; (1) To extract teaching activities from the teaching situation. (2) To identify clearly in each lesson unit. (3) To combine and arrange the teaching activities in accordance with productive skill type and training term.

We made a hypothesis by following below 4 steps, and verified it with actual teaching experiment.

Step 1 : Describing teaching activities

Step 2 : Identifying productive skill types

Step 3 : Describing the lesson example corresponding to skill type

Step 4 : Describing the lesson example corresponding to training term

In consequence of this work, the teaching activities are classified into 5 types. They are “Clarification”, “Presentation”, “Practice”, “Skill Study” and “Follow-up”. On the other hand, we set two skill types that are “Interlectual and Administrational Skill” and “Sensourly and Motor Skill”.

After this, we conducted the teaching experiment according to the hypothesis. The theme was “Practice of color matching”. And we described some teaching examples with combination of teaching activities, corresponding to skill types and training term.

From this experiment and analysis, we found that the methodology has possibility of practical use for effective teaching.

An Analysis for Trainee's Reasoning

—The Possibility of Inquiry Training—

Sinji SAKURAI

The current issue on Vocational Training Method is how to relate knowledge to practice. From this critical mind, this paper reported that trainees consider how to solve the problem of pulling at the spool. The causal structure which pulling at the spool are two factors such as the pulling power of thread and its arms on this rotary moment. Trainees described so many reasons that are based on their experience and others. The paper analyzed 161 trainee's answers and their reasoning were two types which are consisted of facts and concepts. Facts are four groups according to words included their answer which are written by trainee's reasoning. There were words from their experience, words from sentence of the problem, words from picture of the problem, and words from their advanced image except the problem. Their reasoning from this problem has the possibility that suggest to make the dialogue which is named the INQUIRY TRAINING METHOD.

The Training Needs in Automation of Production System

Yasunori NISHIMI

In recent years, the automation of production system has greatly increased. However, many minor enterprises have some problems of workers ability in automation technique. For example, many workers can operate automatic machines (robot and NC-machine, etc.) individually. But, much more extended type of control technique such as to combine between robot and NC-machine is required from enterprises as worker's up-grading training.

We call the required technique as system organization technique. What kinds of training will be required to master this technique? The author analyzed the system organization technique which was required from enterprises and studied these contents, and confirmed that the following methodology is essential.

- 1 . System modering
- 2 . Implement technique of control system

Reorganization of Public Vocational Training Facilities : After the Establishment of the Unemployment Insurance Law

Kazutoshi TANAKA

The system of public vocational training has been reorganized due to a change of three conditions. (1) Educational phase: There has been a rise in the ratio of students who go on to a higher stage of education. (2) Labor phase: The unemployed have increased. (3) Industrial phase: Technology has made progress.

This study clarifies the actual conditions for three periods of changes after the unemployment insurance law was established in 1974. The first period is from 1974 to 1978 when the vocational training law was significantly revised for the third time. The second period is from 1978 to 1985 when the human resource's development promotion law was established, and the third period is from 1985 to 1988.

The results are as follows:

(1) The prefectural vocational training facilities have been gradually implementing the reorganization from 1974. With respect to the vocational training facilities organized by the Employment Promotion Corporation (EPC), the name of the facilities was changed and the initial training was converted to the occupational capacity redevelopment training during the second period. Also, the training course was converted during the third period.

(2) The EPC's facilities have been maintaining the role-sharing between the prefectural and the EPC's vocational training centers which was provided by the vocational training law in 1978. In the prefectural facilities, however, the role-sharing has not proceeded yet.

(3) The national policy of connecting vocational training with regional demand seems to be unsuccessful. Indeed, training courses related to regional industry have actually been abolished.

(4) The demand to incorporate elements of information systems into the training has been reflected in the newly-established course of office automation work. However, it is necessary to reconsider the ideal method of vocational training since the number of electronic equipment courses has been decreasing significantly.

On a Consciousness Survey on CAI

Ikuo KITAGAKI

This paper discusses a consciousness survey and the result. In the survey, the concerned questionnaire items are forwarded to the students of CAI before the administration and after it, and we analyze how the consciousness changes. The result suggests that the students can concentrate on the learning of CAI more than they expected but they may feel fatigue with the administration earlier than they expected.

The Dialogic Aspect of Up-Grading Training

Katsuya TODA

The purpose of this study is to investigate the dialogic aspect of up-grading training based on paulo Freire' educational view.

- 1) What is the meaning of his view that Paul Freire asserts the conversion from extensional education to dialogic education?
- 2) What is the methods of his "problem-posing education"?

Possibility of Information Retrieval Training in Public Vocational Training Institutions (I)

Takayuki YAGI

I researched into the possibility of information retrieval training in public vocational training institutions.

Some enterprises recognize the necessity of information retrieval training and they are carrying out it's training, however, public vocational training institutions do not carry it out yet.

This report is mentioned about the necessity and feasibility of information retrieval training in public training institutions.

The research was carried out by following methods;

- 1) Collecting information about educational training content of colleges and private institution which are using data base services in Japan.
- 2) Interviewing experts of information retrieval concerns.

The results obtained through these data analysis were as follows;

- 1) Utilization of data base is spreading broader range from enterprises centered use to personal use.
- 2) It is clarified that the information retrieval training will be effective means which connect local enterprises with public training institutions.

Research for Leaser Barcorde System by way of
“Accounting Business Software” development.

Hidetoshi, FUKUMURA

Tatuei, TAKAHASHI

Leaser Barcorde System can be used as one of educational training aid which combined textbook with video-soft by tracing of Barcorde-line with Leaser Pen-Scanner.

We developed the “Accounting Business Educational Training Aids” by means of this system.

After several experiments, We recognized that this system will be one of the effective Educational Training Aids for the getting of vocational ability.

The Relationship Between “Subject
Matter” and “Lerner” in “The Child
and The Curriculum” by J. DEWEY

Toshikazu Shimoyama

For the purpose of searching how to realize the educational function which called “re-grasp” training, I have examined what does J. Dewey think the relationship between “subject matter” and “learner” in his study “the child and the Curriculum”.

Dewey thought that they are same thing as “experience”. Also he thought that just as two points define a straight line, so the present standpoint of the child, and the facts and truths of studies define instruction. It is a continuous reconstruction, moving from the child’s present experience out into that represented by the organized bodies of truth that we call subjects or experience of the race.

But I have another opinion. I thought that they are not just tied up each other, but there is “jump” that I called “translation” between them.