

INDUSTRIAL TRAINING [II]

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1. INTRODUCTION :

In the Part I of this article published in the last issue (Vol. VIII. No.2, OCT-DEC 1994) the objectives of industrial training and students' role during training were discussed. In this part, guidelines for the students during training are given.

These guidelines are intended to help the students gain the maximum possible benefit from their training experience. They will focus attention of students on the actual learning from experience they will achieve through their day-to-day work during training.

These guidelines should help them to set up a framework for thinking and review which will enable them to fully capitalise on the opportunities they will encounter.

2. OPPORTUNITIES FOR LEARNING :

The kind of things and the way the students learn on placement will probably be very different to what they are used to, during the academic course. At college, students attend lectures and laboratories and record their learning in formal assignments and examinations. This is all structured and planned and what they are learning is fairly clear.

However, in workplace situation, things are not so distinct. Any situation or experience will not occur with a label on it "Learn such and such things from this situation". Students have to find out what was the lesson hidden in the situation or experience. Perhaps while undergoing the experience they may not be conscious of what they have learnt. On thinking only, they will understand that they did pick up some thing which was not there within them.

Also, they need to show initiative in asking about the wider issues and implications surrounding the tasks they are doing thus acquiring more detailed knowledge of the work or asking for additional learning opportunities.

In order to make these things clear and to highlight the various opportunities the students will get, "areas of learning" are shown categoriwise although, in a real work situation, these will not be clear - cut or separate.

3. LEARNING WHICH IS DIRECTLY CONCERNED WITH THE JOB :

This includes the most obvious kinds of facts, skills and know-how which are intrinsic to the actual job. The students are employed to do (or the project they are presently working on).

Examples might be :

- * Learning how to set up a job on a machine
- * Learning how to access or feed in information on a computer data base;
- * Learning the various steps in the process adopted.
- * Becoming conversant with the specific tests and with the equipment used to carry them out;
- * Developing skills in analysis and interpreting data.
- * Handling various equipment, machines.
- * Maintenance of equipment, machines.

4. LEARNING WHICH IS INCIDENTAL TO THE JOB :

There will probably be many things to be learnt which are not directly concerned with the job as such, but which are picked up or 'absorbed' merely because of the position of the trainee within the organization. There are also many things which can be considered as incidental to the job proper, which are required to be learnt as they help in performing a directly job based task. Examples might be :

- * Finding out why a particular work with which student is connected is required in the organization;
- * Learning how the laboratory or department in which student works fits in with the organization as a whole;
- * Observing the impact of technological, economic, social changes. (for instance) on the organization and the people within it;
- * Learning about Health and Safety regulations which apply within the

students area of work.

- * Learning how other sections are involved in the student's job.
- * Effects on the environment of the job.

5. INTERPERSONAL / SOCIAL SKILLS :

This category includes human relationships in the work situation and communication skills. These are the kinds of skills which make tremendous difference to how student gets on with his job and the people within the organization. Examples might be :

- * Developing the ability to articulate a problem or idea in a clear and concise manner and communicating the same effectively.
- * Becoming self-reliant and using initiative;
- * Developing the skills required to 'fit on' to the work environment;
- * Dealing with individuals both within and outside the organization over through correspondence or face to face meeting.
- * Manners and etiquettes

6. THE RELATIONSHIP OF ACADEMIC WORK TO TRAINING EXPERIENCE

It is important, where possible, to become aware of the links between the theory in the academic content of the course and the practice in training. Students will probably find that the training experience draws on or puts into context some elements of your college based studies. Examples might be :

- * Learning how a certain technique is applied in a working situation;

- * Discovering the appropriate accuracy of measurement for the tests you are undertaking;
- * Relating the work to the underlying theory learnt at the college.
- * Learning limitation of theory.

There are varying levels of knowledge and skills and also different methods by which this learning takes place. Some are quite formal and clear, for example :

- * Reading a manual;
- * Watching a demonstration;
- * Direct supervisory instructions;
- * Studying regulations.

Others may be learnt via more informal, less obvious methods such as:

- * Trial and error;
- * Asking questions;
- * Looking at examples of previous work;
- * Observing how others perform
- * Discussions.

7. RECAPITULATION AND REVIEW

As formal teaching is practically absent in a practical training situation; learning necessarily depends on the students' initiative and efforts. As such a procedure has to be set up by the student himself to recapitulate and review the day-to-day activities. The procedure has to be set up with the co-operation of the work-place supervisor which may consist of :

- i) Setting framework for activities.
- ii) Recapitulation of day-to-day activities.
- iii) Finding learning elements from these.
- iv) Discussion with workplace supervisor.

v) Review

This should work on the following lines :

a) As near to the commencement of the training programme, as possible the student, his workplace supervisor and, preferably his college placement officer should undertake to negotiate his role within the organization and the potential opportunities which the placement has to offer. Student should try to answer basic questions which will set the framework for the training, such as:

- i) What will be his role in the organization and what will this entail?
- ii) What opportunities for learning will be afforded by the working environment and tasks ?
- iii) What will be the general and specific goals of the training with reference to these opportunities ?
- iv) How might the student produce evidence to back up claims of learning achieved and how might progress be appraised ?

b) Subsequently, the student and his workplace supervisor should meet on a regular basis to review progress and update the criteria of his training progress. It is important that these meetings are planned and time is set aside to talk specifically about the training. It might be best to meet fairly often during the first few weeks (perhaps weekly) and then fortnightly meetings would probably be adequate. These meetings should be used to :

- i) Evaluate what has been achieved, and how, in the previous stage of the training.
- ii) Highlight any particular problems or areas of difficulty there might have been and agree what could be done to resolve these;

- iii) Decide on a course of action for the next stage of the training taking into account information obtained from (i) and (ii) and setting new or revised goals if necessary.

These meetings would be most effective if the student prepares for them beforehand. This would entail reflecting on what he had been doing, problems he had encountered and anything he particularly felt the need to discuss with the supervisor. This could all be noted down in the form of an agenda for the meeting.

This procedure would mean that both the student and his supervisor are kept fully in the picture as far as the training is concerned. The student would be clear as to what his role actually is, what the limits of his responsibilities are and what is expected of him. His supervisor would be aware of the progress he is making; the difficulties he is having to face and the contribution he is making. There would be a mechanism in place to deal with any problems or worries which either party might have and any specific interests or needs which could be acted upon.

c) The learning, the student is achieving, should be documented. This can be done by maintaining daily diary. This might include descriptions of skills and knowledge he is acquiring and accounts of experiences he has identified which have made him aware of learning taking

place. Some times he will need to stand back and reflect on what he has done in order to become aware of what he has learnt. He might find it useful to ask himself questions about his experience and development to help him realise what and how he is learning (especially where the rather more intangible skills are concerned).

For example :

- i) He may find that he can now, quite comfortably talk with the higher ups which would have worried him at the commencement of his training. How does he think he has acquired this new-found confidence or expertise ?
- ii) Think of a mistake he has made in his work, or a situation which did not go as planned. Using the advantage of hindsight, how would he react to a similar situation now? What has this 'negative' experience taught him ?

8. CONCLUSION :

In short, to make the best use of the industrial training opportunity; a student has to take initiative and with the help of the placement officer from the institution and his work place supervisor, should prepare a plan of activities through which he can directly or indirectly learn such aspects of the profession to which he cannot be exposed in the classroom.

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