

Hawthorne Experiment by Elton Mayo

In 1927, a group of researchers led by [Elton Mayo](#) and [Fritz Roethlisberger](#) of the Harvard Business School were invited to join in the studies at the Hawthorne Works of Western Electric Company, Chicago. The experiment lasted up to 1932. The Hawthorne Experiment brought out that the productivity of the employees is not the function of only physical conditions of work and money wages paid to them. [Productivity of employees](#) depends heavily upon the satisfaction of the employees in their work situation. Mayo's idea was that logical factors were far less important than emotional factors in determining productivity efficiency. Furthermore, of all the [human factors influencing employee behavior](#), the most powerful were those emanating from the [worker's participation](#) in social groups. Thus, Mayo concluded that work arrangements in addition to meeting the objective requirements of production must at the same time satisfy the employee's subjective requirement of social satisfaction at his work place

Hawthorne experiment consist of 4 parts:

1. Illumination Experiment.
2. Relay Assembly Test Room Experiment.
3. Interviewing Programme.
4. Bank Wiring Test Room Experiment.

1. Illumination Experiment:

This experiment was conducted to establish relationship between output and illumination. When the intensity of light was increased, the output also increased. The output showed an upward trend even when the illumination was gradually brought down to the normal level. Therefore, it was concluded that there is no consistent relationship between output of workers and illumination in the factory. There must be some other factor which affected productivity.

2. Relay Assembly Test Room Experiment:

This phase aimed at knowing not only the impact of illumination on production but also other factors like length of the working day, rest hours, and other physical conditions. In this experiment, a small homogeneous work-group of six girls was constituted. These girls were friendly to each other and were asked to work in a very informal atmosphere under the supervision of a researcher. Productivity and morale increased considerably during the period of the experiment. Productivity went on increasing and stabilized at a high level even

when all the improvements were taken away and the pre-test conditions were reintroduced. The researchers concluded that socio-psychological factors such as feeling of being important, recognition, attention, participation, cohesive work-group, and non-directive supervision held the key for higher productivity.

3. Mass Interview Programme:

The objective of this programme was to make a systematic study of the employees attitudes which would reveal the meaning which their “working situation” has for them. The researchers interviewed a large number of workers with regard to their opinions on work, working conditions and supervision. Initially, a direct approach was used whereby interviews asked questions considered important by managers and researchers. The researchers observed that the replies of the workmen were guarded. Therefore, this approach was replaced by an indirect technique, where the interviewer simply listened to what the workmen had to say. The findings confirmed the importance of social factors at work in the total work environment.

4. Bank Wiring Test Room Experiment:

This experiment was conducted by Roethlisberger and Dickson with a view to develop a new method of observation and obtaining more exact information about social groups within a company and also finding out the causes which restrict output. The experiment was conducted to study a group of workers under conditions which were as close as possible to normal. This group comprised of 14 workers. After the experiment, the production records of this group were compared with their earlier production records. It was observed that the group evolved its own production norms for each individual worker, which was made lower than those set by the management. Because of this, workers would produce only that much, thereby defeating the incentive system. Those workers who tried to produce more than the group norms were isolated, harassed or punished by the group. The findings of the study are:-

- Each individual was restricting output.
- The group had its own “unofficial” standards of performance.
- Individual output remained fairly constant over a period of time.
- Informal groups play an important role in the working of an organization.