

“Hawthorne Studies”

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BACKGROUND

The [Hawthorne Studies](#), or experiments as they are also known, were conducted to examine the working conditions and productivity at the Western Electric Hawthorne Works (WEHW) in Chicago. There were several studies done in the plant but this article will focus on the three major ones:

1. Illumination studies
2. Relay Assembly test room and
3. Bank wiring room experiments.

The initial experiment at the plant from 1924 to 1927 was on the effect of light on productivity. This experiment showed no connection between the amount of production and illumination, however, it became the conduit for future studies on what could influence worker output.

It should be noted that these studies were conducted in the 1920's, a time when American businesses were utilizing Scientific Management, a theory created by [Frederick Taylor](#). Taylor, through his work in the steel industry, believed that workers would purposely work below their capacity. This was based on the workers' belief that if they became too productive, jobs would be reduced, as fewer of them would be needed. Taylor wanted to improve worker productivity and believed that in applying the scientific method to the management of workers this goal would be achieved. The scientific method took away the autonomy of skilled craftsmen and created simpler jobs that could be performed by unskilled laborers who could be trained quicker. Henry Ford applied this practice successfully in his automobile factories.

In 1927 Harvard Business School professor [Elton Mayo](#) continued the Hawthorne experiments by examining the effects of the physical and environmental influences in the workplace. Mayo took six women from the assembly line (known as Relay assembly) at the WEHW and separated them from the rest of the factory. Mayo controlled their work conditions by, but not limited to, changing their hours, rest breaks, temperature and humidity. This was done with advance notice and a supervisor who was present as an observer, not a disciplinarian. These six workers became a team that worked well together as they felt no coercion from above and no limitations beneath them. The result was that they produced 3000 relays a week versus the 2,400 they normally produced under routine working conditions.

The final experiment was called the Bank Wiring Room. The social structure of employees was investigated along with payment incentives. The question was whether the informal social structure was based on occupations. This experiment included 9

wiremen, 3 soldermen, 2 inspectors and an observer. It was found that special attention did not affect their productivity or behavior. Productivity did not go up, as the workers were afraid that the company would lower the base pay. This experiment contradicted the other experiments, or the phenomenon known as the Hawthorne Effect, where productivity went up as they had a sense of belonging and being part of a team.

According to Donald Clark there are four general conclusions that were drawn from the Hawthorne studies:

- **The aptitudes of individuals are imperfect predictors of job performance.** Although they give some indication of the physical and mental potential of the individual, the amount produced is strongly influenced by social factors.
- **Informal organization affects productivity. The Hawthorne researchers discovered a group life among the workers.** The studies also showed that the relations that supervisors develop with workers tend to influence the manner in which the workers carry out directives.
- **Work-group norms affect productivity.** The Hawthorne researchers were not the first to recognize that work groups tend to arrive at norms of what is "a fair day's work," however, they provided the best systematic description and interpretation of this phenomenon.
- **The workplace is a social system.** The Hawthorne researchers came to view the workplace as a social system made up of interdependent parts.

These studies have created what is known as the [HAWTHORNE EFFECT](#). This is a phenomenon that is thought to have production increasing, not because there was a change in the working conditions, but because management showed interest in having improvements. This is the feeling that the worker is part of a team and that they have a sense of belonging.

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