

Frederick Winslow Taylor – the father of scientific management



Frederick Winslow Taylor - The Father of Scientific Management The years leading up to the 1920's were a time of momentous change for America. New technology was gaining momentum and factories were producing more and more goods. People were able to buy goods rather than making them like they had in the past and the standard of living was going up. Manufactured goods were a major part of life, especially during the 1920's. This change towards being a consumer nation didn't happen all at once and it certainly didn't happen without prompting from some amazing innovators of the time.

One of these people was Frederick Winslow Taylor, the founder the scientific management, a system which revolutionized production and largely contributed to making our nation the way it is today. Frederick Winslow Taylor was born on March 20, 1856 in Germantown, Pennsylvania to Franklin Taylor and Emily Annette Winslow. The youngest of eleven, Taylor was raised as a devout Quaker. Born into wealth, he travelled through Europe for three years as a young teen before attending Phillips Exeter Academy in order to prepare him for Harvard School of Law.

Being bright and having access to all the resources he could possibly need, Taylor aced the entrance exam and was accepted into Harvard. Around this time, however, his eyesight was quickly worsening and he chose to go down a different path based on his doctor's advice. It was this fateful decision that would eventually lead Frederick Winslow Taylor into a career at Midvale Steel Works, a career that that would serve as the foundation for his breakthrough management theory which he is still renowned for today.

When Taylor arrived at Midvale, he soon realized, after carefully observing the workplace, that workers didn't work to their full capability despite methods designed to get them to do just that. He is quoted as saying at one point, " Hardly a competent workman can be found who does not devote a considerable amount of time to studying just how slowly he can work and still convince his employer that he is going at a good pace. " Always a man of practicality and efficiency, Taylor set about to help the company reach its greatest potential.

To reach this lofty goal, he looked back at his childhood years, particularly at an old teacher he had. This teacher, Bull Wentworth, calculated the average time of all students that it took to complete each problem and designed his tests around his findings. Taylor likely drew a lot of his beliefs in efficiency from this teacher. By using a similar system at Midvale, later coined Scientific Management, the great innovator was able to double productivity in the few years he worked there. Taylor's time working for Midvale Steel Works was not only a time of great growth for the company but ultimately for companies everywhere.

The system's widespread popularity and influence, however, did not occur overnight, or even during the years of Taylor's employment at Midvale. Rather, Taylor went to school at Stevens Institute of Technology, got married, and proceeded to go through many careers, impacting these businesses for the better, but gaining little notoriety until the late 1890's when he became a part of Bethlehem Steel Corporation. Frederick Taylor's career at Bethlehem Steel was a great success for him and for the company.

While he was there, he created a production planning system as well as a modern accounting system and began analyzing output costs. His most important innovation, however, was his discovery of the Taylor-White Process for working with steel. The significance wasn't in the process itself, but in the way Taylor figured it out. Basically by looking at the steel-working process in small steps, he was able to create a more efficient way of doing things. In 1903, he authored an essay explaining the Taylor-White Process and how he deduced it. This essay caught the attention of Louis Brandeis, a prominent attorney.

Using Taylor's methods, which he gave the term 'Scientific Management,' as an alternate path, Brandeis petitioned the Interstate Commerce Commission, or ICC, not to increase railroad prices along with the wages paid to workers. It was through the relentless advocating of Brandeis that Taylor gained most of his prominence in the world of industry and business and was offered the presidential position at American Society of Mechanical Engineers. It was during his time of presidency over the ASME in which Taylor wrote the book that would guarantee his spot in the history books, a book called *The Principles of Scientific Management*.

The book explains exactly what the title says it does, the basis of Taylor's theory for max efficiency. The theory is far from simple but it can be pinpointed to a few main components. First, work had to stick to a purely scientific system. Before, managers left it mainly up to the laborers to do their job correctly. It didn't matter how the work got done but that it got done. Workers generally used the rule of thumb and didn't set up any

elaborate guidelines for production. This overall practice simply was not conducive to being an effective and efficient company.

There was no way to measure an industry's full potential, nevermind obtain it. Taylor realized this and decided that the best way to reach full potential began with a lot of research and testing. A company should break up a large task into smaller, easier tasks, figure out the fastest way to complete these small tasks, and finally determine the average time it should take for an able worker to complete this task. The second part of Taylor's theory involved the worker. He deduced that since most common workers weren't well-educated, they didn't belong making key decisions about the company.

Their role should be simple and well-defined, leaving little to no leeway on their methods or how fast they do their task. If they couldn't keep up with the established pace, they were often fired and replaced with an unskilled laborer that could. Taylor summed up slacking on the job to the result of one of three things. The worker could be worried that if production increases, there won't be as much of a need for workers, the management and rewards system in place could be ineffective, or the performance was generally governed by rule of thumb and therefore didn't have any particular standards to live up to.

Ideally, Scientific Management solved all three of these potential issues, instead encouraging better work ethics in the workers. The third key element of Taylor's management system involved both the management and the workers. Taylor believed that his system could only be implemented correctly if the two groups got along and worked to better the company and

not themselves. He felt that, " In the past the man has been first; in the future the system must be first. " He didn't side with the leaders of business but he also wasn't biased to the labor. He believed in a balance between the two. It (the public) will no longer tolerate the type of employer who has his eyes only on dividends alone, who refuses to do his share of the work and who merely cracks the whip over the heads of his workmen and attempts to drive them harder work for low pay. No more will it tolerate tyranny on the part of labor which demands one increase after another in pay and shorter hours while at the same time it becomes less instead of more efficient. " This part of the system, essentially working towards the greater good of the business, was usually put aside in favor of just the first parts.

This went against Taylor's view that the system couldn't be successful in pieces, only as a whole. Management, however, was normally more concerned about profit and increasing it than the system and making sure that common laborers were satisfied. They often ended up increasing the workload, thus increasing production and profits, but the workers didn't share in the gain. Taylor realized his system could potentially inspire more bad than good but had to hope businesses would use it the right way. After publishing his book, Taylor's concept of Scientific Management began to spread quite rapidly.

It wasn't until 1911 though that it was really thrust into the public view. In 1910, American Magazine, a popular publication at the time, requested an article about scientific management from Taylor. Trying to promote his ideas as much as he possibly could, he obviously consented. What resulted was an even greater spread of his ideas, but it also generated a huge influx of <https://assignbuster.com/frederick-winslow-taylor-the-father-of-scientific-management/>

criticism. Letters of disapproval came from all over the country and from lots of different social statuses. One of Taylor's greatest critics was Upton Sinclair, world-renowned author of *The Jungle* and passionate labor activist.

Although Taylor advocated an increase of wages for the common workers when an increase in profit came, Sinclair didn't think it was nearly enough. In the article, Taylor had given a specific example in which a worker increased productivity by 362% and in turn, his pay was raised 61%, which amounted to 53%. According to Sinclair, if the worker increased his workload by 362% then his pay should be increased by the same magnitude. Taylor responded that while this was a valid point, Sinclair wasn't looking at the whole picture.

The engineers and managers responsible for the better system also had to be paid extra. Plus, new machinery and technology cost more money and ultimately, it was the good of the company and its consumers that mattered. If the consumers are happy and the management and workers are satisfied then there isn't a problem. Despite Taylor's attempts at quelling the concerns of labor activists, they continued to insist that Scientific Management dehumanized workers and left them no room to excel or become better. Discontent led to the famous strike at Watertown Arsenal in 1911.

The widespread criticism began to dissipate in the late 1920's once World War I began and the need for organization and efficiency was stronger than ever. Even though many were against Scientific Management, the benefits of implementing scientific management were great enough that by 1915, 181 companies had adopted its practices successfully. There's no question of the

impact Taylor had on these businesses and their production. There is question, however, as to whether scientific management bore any impact on Henry Ford and the creation of the assembly line.

The assembly line was another extremely significant innovation created around the same time as scientific management which also involved breaking the overall task up into small, one person jobs. It's no wonder that many speculate about the connection. Many believe that Ford took aspects of scientific management into consideration when creating his own system. Others believe Taylor saw the start of Ford's assembly line and was inspired by it when writing about and putting into practice scientific management. Still another group of people think the two to have developed completely independently of each other.

Whatever the case may be, both clearly played a crucial role in the development of the industrial world. Very proud of his creation, and confident in its success when applied, Taylor was quoted as saying, " The general adoption of scientific management would readily in the future double the productivity of the average man engaged in industrial work. " Historians cannot know for certain if this was actually true in all cases, but they've observed certain changes that almost always occurred when a business put Taylor's ideologies in place.

First, the gap between positions in charge and workers who had no say increased. Only those very high up in the business made the decisions which left those of lesser status with nothing to do but obey. Secondly, decisions were hardly ever made on a whim anymore. Strict guidelines told a worker

what to do in any situation and they weren't to be strayed from. The third change involved payment of workers, which in general rose in the cases of managers and workers alike. There were however, exceptions to this trend. The final change was usually the loss of unskilled workers.

With productivity increasing, not as many laborers were needed to make a good profit so they were let go. Since the 1910s, America has changed significantly. The scientific management system, which was designed to fit the needs of that time period, has also had to adapt to change. As time goes on, more and more people are becoming educated. The system could no longer rely on differences in education to separate the decision-makers from the common workers. Also, as unions became more popular and influential, the balance of powers has shifted towards the common workers rather than heavily favoring those in charge.

With this change in balance has come revolt against the dehumanizing of workers. Concepts such as empowerment, in which employees are given freedom along with responsibility, have become much more widely practiced in the business world. America has shifted towards producing more services than goods so the need for factories and strict scientific management has decreased. Still, despite all these changes, scientific management remains an important part of our world today. Some especially important concepts that are keystones in the business world come from Frederick Taylor according to John R.

Schermerhorn, author of many textbooks on management. Having rewards or a higher pay-scale for quality work is one concept from Taylor, for

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example. Another is finding a worker's potential and using that knowledge to place them in a job they will excel in. Modern business isn't the only thing influenced by Taylor's policies. Many other fields of study or work have drawn from his model of efficiency to help their own. Schools are only one example of this concept. Many educators have applied Taylor's views into their school or classroom to bring about the best work from their students.

The system can also be successfully used in the military or anywhere else for that matter if it is used correctly and not excessively. On March 21, 1915, at the age of 59, Frederick Winslow Taylor died in Philadelphia after contracting influenza. Whether they agree or disagree with the theory of scientific management, anyone can see what an impact Taylor has had on industry, management, and America as a whole. Through his achievements, Taylor is clearly one of the greatest innovators of his time and his influence continues on today. Works Cited " Frederick Winslow Taylor. " Who Made America?. 10-31-10 < http://www. pbs. org/wgbh/theymadeamerica/whomade/taylor_hi.html>. Ament, Phil. " Web Page Title. " Idea Finders. October 2006. 10-31-10 < http://www. ideafinder. com/history/inventors/taylor. htm>. Sandrone, Vincenzo. " F. W. Taylor and Scientific Management. " Skymark. 2010. 10-31-10 < http://www. skymark. com/resources/leaders/taylor. asp>. " Principles of Scientific Management: Appropriateness for Managing Modern Organizations. " UK Essays. 2003-2010. 10-31-10 < http://www. ukessays. com/essays/management/scientific-management. php>. " Biography: Frederick Winslow Taylor. ReferenceAnswers. 10-31-10 < http://www. answers. com/topic/frederick-winslow-taylor>. " US History Encyclopedia: Scientific Management. " ReferenceAnswers. 10-31-10 < http://www.

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