Ten pages Research Papers

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What is science? Science is a form of humans trying to understand or to better understanding about the earth/ universe, human use the physical evidence and observation as part of the science study; the data from such incidence can be collected from the experiments that are held under controlled condition. China was one of the known countries that practice science in the pre-modern history; the Chinese developed the technology of printing, the earliest printing model was created as a stone board, where the Chinese characters could be arranged in the stone board to print out sentences, which later on, the printing technique has acquired with many other different European countries to print out books.

From 1400s to late 1700s, science had experienced a dramatic revolution, or changes. Scientist including Francis Bacon, Isaac Newton, and Voltaire had swept through the whole western hemisphere. Reasoning, and new thoughts had slowly and maturely replaced the old ideology religious mind. A lot of theories have developed during the “Scientific Revolution”, the famous Francis Bacon developed a method called the Baconian method, a method that is depended on proves, which Bacon gathered data and analyzed such data to explain the nature. Francis Bacon strongly suggested the chained idea which he called “the table of investigation”, “The table of Presence”, “The table of absence in proximity”, and “The table of Comparison.” Three of the followings are constructed in order, however Bacon also believe that through observations and analyzing on certain situation, then the gathering result was believed enough to make a solid conclusion, however the Baconian method ignored the most important factor of experiment, which is the introduction of a hypothesis, or the absence of testing.

Then later on, Isaac Newton defined the law of physics and the boundary of the idealistic mechanical world. Newton introduced three basic principles of motion. First law, an object tends to remain in the original motion with a constant velocity, unless a force is acted upon on the object, it means that the object will continue its motion in a constant pace, however the constant velocity would change if the body system is exposed to any external forces, it accurately explains that cars slow down and come to a stop when the car’s wheels get in contact with the rough surface. The second law explained the total force is equal to the object’s mass multiple the acceleration of the body system. The principle well explains the weight of an object when the gravity is acting on such object, and it also states the force different of such object when the object is under certain acceleration. The third principle, which is known for the “force coming in pair” theory, which Newton explains that when two objects come in contact, the force that two object exert are the same amount force. For example, a book sits on a table, the table will not push the book upward, however the book would not break through the table, because the book is exerting the same amount of force that it input into the table, and the table is strong enough to with hold the book on top. Newtonic’s physic well defined the new possibility of approaching the mechanical world, and it also opened up the human’s mind of approaching the society.

Voltaire was known as the poetry/plays writer, his most famous plays is Oedipus. Throughout his life time, he was acting as one of the critics of French society. He has been exiled two times, due to the fact that he criticized the corruption of the French society/ government, during the time he spent when away from home in England, he got to study the philosophy of John Lock, and the ideas of mathematics from Isaac Newton. Studying of such manner had made him to come up with a lot of philosophy reasoning, he often attacks the idea of “freedom of religion”, “freedom of expression”, and “separation of church and state”. As “freedom of religion” Voltaire believed the principle supports the freedom of practicing religion in public or private. He also suggested the freedom of speaking, receiving, and communicating information, as in his idea of “freedom of expression”. He also believed that the nation should be separated with religion practice, which it concluded his idea “Freedom of religion”. His three basic principles had swept through the whole French region; it is believed that his ideas acted as one of the factors of the French revolution.

Science was first introduced to the American continent around the Enlightenment era, where the east of America had already formed in a circle of different religious practice from 1600s to1800s. Nobel men like Benjamin Franklin, Thomas Paine, and John Lock, had opened up the colonial period citizen’s mind, they gave the colonist the ideas of fighting against the imperial Great Britain. Then around the late 1800s, United States had experienced the Era of Industrial Revolution, where the north is booming with the increasing productions. Important machines were created, The Steam engine, Telephone, and the spinning machine. The steam engine had successfully transformed its uses into transportation like trains and steam boats, where ultimately improve the general accesses of travelling. The telephone had increased the communications between household, it later on transformed into the portable telephone, and it also helped the world wars battlefield, under the communication network, the soldiers who fought on the battlefield had a better ability of surviving by acquiring the information faster. The spinning machines created the faster route of making clothes; however the machines required a large amount of labors to operate, therefore it given out large amount of jobs to the market, and it speeded up the formation of factories.

Psychology is a scientific study of the mind and Behavior. Psychology did not come in form until the late 1800s, however its earliest form can be traced back to the early Greek, it can be branched out in different fields including, “physiology, neuroscience”, “sociology” and etc. Famous scholars that have contributed to psychology are Carl Jung, Sigmund Freud, and B.F. Skinner. Carl Jung was known from his Dream analysis, and Sigmund Freud was known for his developing the theories and techniques of psychoanalysis, and B.F. Skinner was known for his developing of behaviorism.

Carl Jung was born on July 26th, 1875 in Kesswil Switerland, he was the fourth child of the family, but he was the only surviving child. He described himself as the introvert, based on the reason, his mother was a chronicle depressed patient, who was often absent from the household, however Carl Jung was happy when he left alone to his thoughts. Jung developed the periodic faintness, due to the reason that he loosed consciousness when one of his classmate pushed him to the ground; he was told by the doctor that he could not attend to school, because Jung’s Periodic faintness. However Jung could overcome the problems, and successfully attended school again. Jung’s Faintness was his first encounter with neurosis.

Jung studied medicine while developing the interest in spiritual phenomena in school. The combination of both studying leaded him into the psychology field. He finished his doctor degree in 1902 from the University of Basel with a medical degree. In his early career, he was working with the psychiatric patient at the University of Zurich Asylum. Later on, Jung got to partner up with another famous psychologist who named, Sigmund Freud. Through their study of human mind, Jung has gotten the opportunity to further understand the unconscious mind through the process of dreaming. However the different view on each individual’s studies, Jung and Fred had unfortunately ended their friendship. Jung rejected Freud’s theory, which was “sex as the sole source of behavior motivation.”

Jung came up with the theories such as “Extraversion and Introversion”, “Archetypes”, and the “Collective unconscious.”

Sigmund Freud was born on May 6th, 1856 in the Austrian town. When he turned four years old, he and his family moved to Vienna, where he would live and work for most of his life. He received his medical degree in 1881, a year later he processed into his marriage. Freud’s early concept was influenced by the work of his friend and Viennese collage. His theory said that human’s mind is within three states, the conscious mind, the preconscious mind, and the unconscious mind.

For the conscious mind, he suggested that it is within such person can operate seemingly, which means that the conscious mind control the human’s present perceptions, memories, thought, and feelings. He believed that’s basic level of human mind, which he called such behavior as the ego.

For Preconscious mind, he believed that it is directly connected to the conscious mind, where it’s known as today, the “available memory”, in which it is referring to anything that human, was not thinking about, however it could be readily bring to mind. Freud considered the preconscious mind was made by the ego and the superego.

Freud believed the previous two parts, conscious mind, and the Preconscious mind were the small proportion of his theory which is the human mind. He suggested that the largest part was the unconscious mind, which anything that is not easily available to awareness, such as drives or instincts. And things that exist, but human cannot spot such things with the human five senses. Such as the memories and emotion that associated with trauma. Freud called the uncurious mind as “id” or it.

B.F. Skinner was born on March 20th, 1904 in Pennsylvania, USA. He graduated as a student from Hamilton College in 1926, where he developed his passion of writing, then he decided to become a professional writer for the next two years after college; however he had not found any success at such field. Therefore, he decided to pursue a new passion of his life; he enrolled at Harvard University to pursue the psychology degree.

At Harvard University, B.F.Skinner was mainly to study behavior. He struggled to study behavior without further introduction of objective and measurement, so he developed an “operant conditioning apparatus.” which was known as the Skinner box. This device successfully provided B.F. Skinner the opportunity to study the correlation between animals’ behavior and the surrounding environment. He used the device to test out the animal’s behavior over time, for example, he put an pigeon into the Skinner box, where two signs “turn around”, “peeking” will show up in front of the pigeon individually, the pigeon will be rewarded with food when they complete either the “turn around”, or the “peeking” actions. The experiment was known as the “positive reinforcement”, where the object was rewarded with rewards.

He believed the “positive reinforcement” was the most effective rewarding system; a system that can manipulate the studying object to behave in certain behaviors. B.F. Skinner had successfully trained a pigeon to play ping pong; this project was related to his suggestion of training pigeon to carry bombs during World War Two, which was based on his “positive reinforcement” theory, however the program was cancelled.

He had lectured in many college, Harvard University, Indiana University, and University of Minnesota. His Legacy was left behind with the books that he has written. His “Positive Reinforcement” theory was used in multiple education system.

Many cases are studied to expand the knowledge of psychology, for example Pavlov’s Dogs stimulus, Standford Prison experiment.

Pavlov discovered a classical conditioning after his experiment. At first, Pavlov was expected that there are some things that dogs do not need to learn. For example, dogs don’t need to learn to salivate when they were presented with food. In Pavlov’s term, this behavior is hard wire into the dog; it is also in terms of behaviorism, as the unconditioned response. In this case Pavlov tried to prove that food would trigger the dog’s salvation; in another word, Unconditioned Stimulus (food) is greater than Unconditioned Response (Salivation).

Pavlov demonstrated the existence of the dog’s salivation by presenting the dog with a bowl of food, and measuring the dog’s saliva.

But Pavlov discovered that any object or event that associate with the bowl of food would trigger the dog’s salivate, for example, the lab assistant or the sound of bring the bowl of food. At the time, Pavlov believed the dog learned to perform the unconditioned respond; Therefore, Pavlov committed to study this type of learning as his career.

Pavlov soon created an experiment, when the dog was presented with food and certain physical traits for a time period. After a while, Pavlov discovered that the dog’s salivation was stimulated only when the physical traits were presented. For example, the dog was present with food while the lab assistant ringing the bell. After a month, when the lab assistant was ringing the bell without presenting the food in front of the dog; the dog’s salivation was presented.

Therefore, Pavlov concluded, when a subject is presented with a stimulus that produces a natural respond, it can be trained to associate that response with a new conditioned stimulus.

On 1973, Professor Zimbardo held an experiment at the basement of Standford University, where he set up the basement as an environment that is similar to the prison environment. At first his theory was to prove the correlation of whether, the sadistic personalities of the prison guards, or the isolated prison environment would affect the prisoners mentally.

In order to study this situation, Professor Zimbardo recreated the prison environment at the Standford University’s basement; he personally hired 21college students to participate as the guards, where he paid the students 15 dollars per day as in return. The guards were demanded to wear the silver sunglasses, so the guards would not need to make eyes contact with the prisoners. Due to this appearance, it made the guards presented as less human, and more dominate over the prisoners. However, the prisoners were being arrested at their home without a proper reason, then they were being transferred to the “Standford Prison”, because the Zimbardo tried to keep the simulation as “really life” as possible.

The guards were ordered to dehumanize the prisoners, day by day. The prisoners were taunted with guards’ insult and harsh orders. Soon, the prisoners had quickly adapted the prison’s role, where they took the prison’s rule seriously, as they were there for the prisoners’ benefits, if a prisoner disobey the rule, every other prisoners shall be punished. Some of the prisoners began to help the guards to against the prisoners who did not obey the rule.

The experiment went on, for the next few couple days. The relationship between the guards and the prisoners changed, the prisoners were the dependents to the guards. The prisoners grew more submissive towards to the guards, where in such actions that the prisoners would find a way to please the guards. And the guards grew more aggressive and dominate towards to the prisoners, where the guards demanded more obedience from the prisoners. One prisoner, whose number was 8612, was released after 36 hours of the experiment, due to the reason that 8612 could not control his emotion, where such emotion leaded to burst of screaming and crying. He was believed at the early stage of deep depression. Some of the prisoners had similar mental break down, therefore they were forced to withdraw from the environment to keep them mentally healthy.

Six days later, professor Zimbardo were forced to close down the experiment, because he believed that, if the experiment was to continue; it would have physically and mentally damaged some of the prisoners that held within the environment. After the experiment, Professor Zimbardo concluded that, people will conform to their social roles which they are expected to play. In this case, where the prisoners and the guards were felt committed to their role within the six days of the experiments.

However this experiment received many ethical criticisms, including lack of representation of consent to the participants, and a harsh level of dehumanization towards to the prisoners. The damages to the prisoners were never expected from the researcher holder; therefore the prisoners were not under any protections from the United States reinforcement.

At the end, this paper demonstrated the use of science, the science related psychologist successes, and the uses and misuses correlation of experimental data.