

Compare and
contrast one
laboratory and one
field experiment



A laboratory experiment is where research is done in a highly controlled environment, where the level of control is very important. It is also to examine the validity of the hypotheses. It is an investigation where one or more variables would be changed under these controlled circumstances so that research can be done on the affects of these alterations. A field experiment is a study conducted in a naturally-occurring environment.

It is a real life setup where one or more independent variables are manipulated by the experimenter to determine the affect of behaviour.

Psychologists like these experiments as they give away natural behaviour.

One laboratory experiment was done by Stanley Milgram in 1961. He was a professor at Yale University. Milgram was Jewish by birth and very interested in the 2nd world war and the holocaust. He was especially interested in why millions of Germans obeyed orders resulting in the mass slaughtering of millions of Jews during the 2nd world war.

One theory he had was that Germans were different to people of a different nationality and that they were more likely to have a personality type that makes them obey orders from those of a higher authority. He believed that the Germans were the only race to be this callous. Milgram tested his theory by carrying out a study on American men to see how far they would go following orders to torture or kill someone.

An experiment of obedience. 0 male subjects were recruited by mail and a newspaper ad to participate in a ' memory and learning' experiment which they would also be paid for. Each participant was told that there payment was for showing up and they could keep the payment no matter what

happened after they arrived. On arrival the participant met the person leading the experiment and the subject who was in fact a stooge. The participant and the stooge then picked slips of paper to decide who would be the teacher and who would be the learner this was a setup as the participant would always be the teacher.

The participant would then see the learner strapped to a chair and electrodes were attached. The participant was then placed in another room where he could not see the learner. The participant was told to teach the learner word-pairs and when the learner made a mistake to punish him by giving him an electric shock. The learner never received the shocks but pre-taped audio was activated when a shock button was pressed making the participant believe that they were initiating these shocks to the learner.

Whenever the participant started feeling uneasy or didn't want to carry on, the experimenter would say things like Please continue", " Please go on", " The experiment requires that you go on", " It is absolutely essential that you continue", " You have no other choice, you must go on" making each response more domineering than the last and when the participant asked who was responsible if anything happened to the learner, the majority carried on with the shocks when the experimenter said it was his responsibility.

Although most of the participants were uncomfortable doing the experiment 65% of them carried on the shocks until the end. In 1966 psychiatrist Charles K. Hoffling stated that Milgrams experiments were meaningless and wanted to look at obedience in a real life situation. He conducted a field experiment

on obedience within the nurse-doctor relationship. Two hospitals took part in this study, twelve public wards and ten private. Participants were closely matched for age, sex, race, marital status, hours they worked, professional experience and area of origin. 2 unsuspecting nurses took part.

During night shift visiting hours when doctors are not usually present or drugs are not normally administered and the nurses would each be alone, the nurses each received a phone call from an unknown doctor telling them to administer 20mg of a drug called 'Astroten' to a patient who needed the drug urgently. The 'doctor' explained he was running late and would sign the authorization papers when he arrived at the hospital. Hoffling placed fake medicine bottles amongst the wards drugs which were clearly labeled 'Astroten 5mg. maximum dose 10mg. do not exceed maximum dose'. The bottles in fact contained glucose which would be of no harm to the patient.

The 'doctor' used a written script for each conversation and all conversations were recorded. The conversation was planned to end when either the nurse agreed, refused, sought advice, got upset or the call went on for more than ten minutes. If the nurse obeyed this order she would be breaking hospital protocol which states that nurses should only take instructions from doctors known to them, therefore they should definitely not follow instructions given by an unknown doctor over the phone.

A real doctor who was involved in the experiment was there to stop any nurses when they were seen to be moving towards the patient's bed with the medication. Out of 22 nurses 21 of them were about to administer the drug. All nurses were debriefed within 30 minutes of the telephone conversation.

Nearly all of the nurses admitted they should not have followed the orders as they were in breach of hospital policy. There are many similarities between the Milgram and Hoffling experiments.

The similarities are that for both of them the focus of the research was obedience, Milgram to see if Americans were as callous as the Germans and Hoffling to see if nurses would obey orders even if they are against hospital policy. Both experiments were done in the sixties. They both had a stooge in their experiments, Milgrams being the learner and Hofflings being the doctor on the phone. There was no harm caused to any of the participants in either experiment as Milgrams learner wasn't actually receiving electric shocks and Hofflings nurses were stopped before they got to administer the drug.

There was Experimental Realism in both experiments. Milgrams participants fully believed that the learner was receiving electric shocks and Hofflings nurses believed they were being giving instructions from a real doctor. Both experiments had a high percentage of participants willing to do what they were being asked to do. 21 out of 22 nurses did what the doctor asked and 65% of Milgrams participants did the shocks until the end. Both had an authority figure, Milgrams being the experimenter and Hofflings being the ' Doctor'.

Both of the experiments could have possible long term affects. In debriefing Hofflings nurses admitted to feeling shame, guilt, embarrassment and that their professionalism had been undermined. Milgrams participants were very traumatized during their debriefing. Both the nurses and Milgrams participants were all in fear of the experiment. Hofflings nurses were in fear

of losing their job if they did not obey the instructions being given and Milgrams participants were in fear of the experimenter when he kept pushing them to carry on with the shocks.

There are many differences between Milgram and Hoffling one being that both the experiments were biased. Milgram used only males in his experiment, his results may have been different if there were female participants involved, where as Hoffling used only females, his results may have been different if he used males or even non-medical participants. Milgram used more participants in his experiment. Milgrams participants were voluntary where as Hofflings nurses were involuntary.

Milgrams participants knew that they were inflicting harm to someone else where as Hofflings nurses thought they were helping a patient not endangering them. Where Hofflings nurses were carefully picked out for age, intellect etc, Milgrams participants were self-selecting because they became participants by responding to a newspaper advertisement. Milgrams experiment had low Ecological Validity as it took place in a laboratory which doesn't really tell us much about real-life situations and electrocuting somebody is not an every day occurrence.

Hofflings experiment has high Ecological Validity as it was in a real life setting i. e. the hospital and the nurses were unaware of the experiment so there behaviour was natural. Both did their experiments at different times of day, Milgrams in the daytime and Hofflings was at night. Participants in both experiments had no visual of the stooge. Milgrams learner was in another

room and Hofflings doctor spoke to the nurses over the phone. In my opinion the most valid results came from the Hoffling experiment.

I think Hofflings results are more valid as they are from a natural setting rather than a forced one like Milgrams. 95% of the nurses obeyed the instructions they were given and were easily influenced into carrying out the orders even though they were not supposed to take instructions over the phone and certainly not exceed the stated dosage of the drug. In a questionnaire completed by a group of nurses (a control group) before the experiment took place, 95% of the nurses said that they would not comply with the order.

Although the nurses believed that they would not obey a doctor unquestioningly if they were ordered to do something that breached regulations and endangered patients, it appeared that in fact they did just that. This shows that when you are being given an instruction by an authority figure you will obey these orders. I believe these are the most valid results as Hoffling demonstrated that people are very unwilling to question supposed 'authority', even when they might have good reason to.