How biomechanics experiments are conducted –

Script for video clip entitled “MW Description of Research”

My name is Mark Wijnbergen. I am PhD student at Teesside University.

I am currently in the Biomechanics Laboratory where we conduct a lot of research. I am going to tell you about research into injury prevention. When we study injury prevention is we often compare patients who have sustained a specific injury with healthy athletes. What we do in this laboratory setting is we ask participants to make a specific movement and study differences between healthy and injured people. You can see the force plates in the floor which allow us to compare forces exerted by patients with an injury with that exerted by healthy athletes. This can be related to differences in the way they move.

How do we conduct experiments? We need a setting with a lot of space so people can move freely and jump and run. We use cameras to record the movements so we can analyse afterwards.

Here we have two cameras so that we can watch the movement from different angles. It is also possible to film the participants from above using cameras on the ceiling.

The force plates allows us to calculate the forces of participants during the movements

Mark demonstrates some running and jumping movements used for the assessments. Equipment can be used to allow other movements to be studied. For example, a low bench is also used in perform other types of jumping movements.