

Psychologists may use the scientific method to conduct their research as it can be regarded a highly scientific and reliable research method.

One advantage of the scientific method in psychology is that it is replicable. Investigations can therefore be carried out in a highly controlled, objective laboratory experiments and repeated to gain further reliability. Findings may then be used as empirical support for theories. An example of this could be the application of capacity to short-term memory experiments and investigations. Due to the vast amount of replicable scientific data it has become well established amongst society that the short-term memory has a limited capacity, known as 'the magic number 7 +/- 2' as proposed by George Miller, 1956. Replicable research is essential in psychology in order to bear any weight amongst both the scientific and psychological community; research which cannot be scientifically proven or disproven and repeated may be less appreciated such as the Freud's theory of personality development in relation to the psychodynamic approach.

A further advantage of the scientific method in psychology is the reductionist nature. Although reductionism can be divided into two sectors, both as a strength and a weakness, it can be essential in scientific methodology in relation to psychological data. For example, human behaviour functioning is a severely complex phenomenon, which would be greatly difficult to investigate without splitting down into individual sectors. Psychologists may wish to investigate differing contributors to behaviour, such as biological, behavioural, cognitive or psychodynamic assumptions. An example of reductionism in scientific methodology is the application of biological factors contributing to behaviour, such as Selye's General Adaptation Syndrome (GAS). The theory focuses on purely biological functioning of stress, although it is an acceptable assumption that individual factors may contribute to individual responses to stress. However, by reducing such a complex issue to purely biological reasoning it has