The accuracy of Eye Witness Testimony has been tested by many different approaches in psychological research of memory.

A study by Loftus and Palmer (1974) into the accuracy of Eye Witness Testimony aimed to find out if changing the wording of a question could distort one's ability to recall from memory an event. They showed their participants a series of car crash videos before asking them to fill out a questionnaire. One of the most important questions included asking the participants what speed the cars were travelling at. They used an independent measures design to divide the participants into 5 conditions: 'Smashed', 'Collided', 'Bumped', 'Hit', 'Contacted'.

The results from this experiment provide good research into accuracy of eyewitness testimony because it found that by changing the wording of a question, it significantly influenced the speeds given by the participants. For example, those in the 'smashed' condition provided the highest average of speed of 40.8mph, whilst those in the 'contacted' condition's average were merely 31.8mph. Similarly, when called back a week later and asked if any broken glass was seen, they found that although there wasn't any present, 32% in the 'smashed' condition said they had seen broken glass. Loftus and Palmer therefore concluded that by using the word 'smash' it gives suggestions of strong impact and thus shows that leading questions have an impact on the accuracy of eyewitness' ability to re-call situations.

The strengths from this study include providing useful insight for the police so they know that when interviewing witnesses they should be aware of the way they phrase their questions to ensure the memory of the witness isn't distorted in any way. Similarly, it shows that juries should be thoughtful before accepting the validity of a witness when listening to eye witness testimonies.

On the other hand there are also weaknesses to this study. Firstly, it lacks mundane realism and ecological validity because the film shown has less emotional impact than a real life situation would and the participants knew they were about to watch a film so thus transferred their full attention to the video, whereas in real life they would be taken by surprise.

Similarly, contradictory evidence from Yuille and Cutshall (1986) weakens the credibility of this study. They interviewed people that had witnessed an incident where someone was shot dead and fatally injured and found that the witnesses' accounts were not influenced by the leading questions and were in fact very clear. This suggests that more intense incidents perhaps improve ability of re-call.

Other psychological research into anxiety and violence tells us more about accuracy of eye witness testimony. Yerkes-Dodson Law for example believed that an increase in arousal increases performance up to a certain point, which they called optimum level. They believed that once arousal when higher or lower than this level it would affect memory performance. This is supported by Peters (1988) who found that those receiving inoculations in a clinic (an anxiety generating event) found it difficult in accurately identifying the nurse who issued their jab. One can conclude that this was due to the high levels of arousal surrounding the participant during the time of the jab.

Moreover, researcher has been conducted into whether attention focus or anxiety was the sole reason behind poor recall. Loftus & Burns (1982) found that details of less - violent crimes were more accurate than details of highly violent crimes. Whilst Clifford & scott (1978) found that witnesses to violent incidents generally re-call less than witness to non violent, regardless of whether a weapon was used. This shows that the level of violence involved in the incident had a strong influence on the accuracy of eyewitness testimony.

Lastly, there is also research into how age affects accuracy of eyewitness testimony. Studies have shown that children are more likely to get influenced if tested on eye witness testimony than adults due to things such as language ability or memory processes.

Evidence into language ability comes from Goodman and Schaaf (1997) who found that the more complex the question, the less accurate the answer given by the child. This suggests that one aspect of ensuring that eyewitness testimony remains accurate is to not test the child on skills that they are not fully developed in yet e.g. complex language. This is backed by a study by Ceci et al (2000) who found that children aged between 3-4 years were more influenced by leading questions.

Research into memory processes shows that children may lack detail but not accuracy when it comes to re-call, which was found by Goodman and Reed (1986). Similarly, Memon et al (2003) studied the accuracy of young and older eye witnesses found that after 35 minutes there was no difference in accuracy of identification however, after 1 week, the older generation worsened significantly more than the younger generation.

To conclude, there has been a great deal of research into the accuracy of eye witness testimony and this has shown that there are many things that influence someone's ability to re-call a situation accurately. Therefore, one could say that Eye witness testimony isn't the most accurate method.