Research problem research paper example

Sociology, Population

Over the years, many people either win or lose cases as a result of the information provided by the witnesses given a chance to testify against them or in their favor. It is true that human being is prone to forgetting. As a result of the many activities they are engaged in, it becomes necessarily inevitable for individuals to retain all that they have heard or seen throughout their lifetime.

Similarly, there have been a lot of rumors based on stereotypical beliefs that the more elderly a person is, the more they lose their retention credibility. It is therefore, believed by many people that old people are so useless and should not be used to testify in the court of la (Bruck, M., & Ceci, S. J., 1999). This research was done to investigate this belief and unveil all the truths concerning it. The major concern was to investigate if age and confidentiality actually determine the level of accuracy of the eye witness. In order to do this, a carefully selected sample population was used. They were subjected to a series of tests that would be instrumental in helping the researcher to get all the necessary information from them.

The subjects of the research were recruited in the laboratory after making all the ethical considerations. There after, they were given a short video of an accident to watch. From this point, they later gave two different types of questionnaires to fill. Each and every one of these questionnaires carried a variety of questions that the respondents were supposed to fill. It is this information that would be analyzed and interpreted to give a well thought conclusions and recommendations.

Research objectives

This research was aimed at thoroughly investigating and giving possible answers about the credibility and reliability of the eye witnesses. With this in mind, some of the objectives of this research included, but not limited to the following:

First, the research was aimed at finding out if the credibility of the witness is closely related to one’s chronological age. Over the years, many people, particularly the younger generations, have believed that the people with a more advanced age are not able to retain most of the information in their memories. This is because; it is widely believed that their memory is wearing out to the extent that they can not remember a bigger percentage of what they experience in their lives.

Secondly, this research was aimed at unveiling the truth surrounding the notion that it is majorly age that determines the reliability of the eye witness. Many people have developed a lot of stereotypical beliefs that individuals should be made reliable as witnesses based on their age. Most people do not accept the fact that everyone forgets. They dispute the use of children and the elderly population as reliable witnesses who can equally give reliable and true accounts of the incidences they are expected, at some later date, to narrate and account for. So, in order to shed more light on this notion, the researcher decided to exclusively use a combination of children, adults and the elderly population.

Definitely, each and every one of them will give their true stance on this topic based on their understanding. The varying data collected from this

cross cutting section of the society will be analyzed and calculated to help reach a more relevant, workable and well thought conclusions. Consequently, this research was also aiming at finding out if it is true that the level of accuracy of an eye witness is directly related to the witness' confidentiality. It has been widely argued that the validity of the information provided by the witnesses is closely associated with the degree of their confidence. A frightened witness may be easy to manipulate to the extent that they can alter the information they were giving even if it was the right one. Hence, the research was interested in investigating the facts behind this and the extent at which its dominance can be felt.

Finally, the research was aiming at carrying out an investigation to ascertain if the age of a witness can heavily influence the level if their confidence (Balota, D. A., Dolan, P. O., & Duchek, J. M., 2000). It has generally been perceived that children usually give misleading information during their accounts because of lack of confidence. As a result of fear, many cowardice witnesses end up altering the truth and replacing it with the unintended false truth.

Hypotheses

The activities surrounding this research were done under the keen guidance of the research questions based on various hypothetical theories. Precisely, it was aiming at finding the truth behind the following informative and null hypotheses:

i) Is the reliability of a witness closely related to one's age? This was meant to give a direction that the reliability of a witness is directly linked to their

age. So, the major role of the researcher in this case, was to carry out an investigation and find out the extent at which this happens.

ii) Is the accuracy of a witness linked to their age? This hypothesis was aiming at giving a direction to the researcher to have some idea on the fact that these items are related. Hence, it was the sole role of the researcher to find out if this is actually true and ascertain to what extent it is experienced in real life situation.

iii) Does the age of a witness determine the degree of confidentiality of a witness? This hypothesis was to help the researcher in having a rough idea involving the two variables. From here, they will be able to carry out more investigations to discover more information and carry out more research to approve or disapprove this.

Method

In this mixture were 16, 24 and 18 female children, adults and elderly respectively. However, the male population consisted of 24 children, 61 adults and 27 elderly persons. These people were carefully selected so as to give a true representation of the whole diverse Vancouver population.

A simple random and cluster sampling methods were used before they were taken to the laboratory in which a section of the test was done. The major ethical considerations were made to ensure that all the rights of respective subjects to this research were not infringed.
Hence, before carrying out any investigations, the researchers were asked to volunteer with most of them including children were to fill consent forms.

Then they were given a short video in which a road accident had been recorded to watch and tell the researcher what they had seen.

The major tools used in this research were the questionnaires and direct observation. After keenly watching the 5 minute video, they were given two types of questionnaires to fill:

Video Questionnaire(VQ)

This questionnaire was filled after watching the short video. It only had 10 short open ended questions that the respondents were supposed to answer based on the accident that had been recorded in that video tape.

Personal Questionnaire (PQ)

In this questionnaire, the respondents were expected to short questions based on their personal features. It only had 10 items with just 7 points to deal with.

However, in order for the researcher to win the respondents' confidence, each and every one of them was paid a total of US $. 10 to make them be reliable to the researcher and answer all the given questions and submit the questionnaires in time (Ackil, J, K., & Zaragoza, M. S., 1998).

Just like others, this research had a combination of dependent and independent variables. The independent variables were the level of confidence and age of the witness. Meanwhile, the only one dependent variable was the level of accuracy of a witness. These would be subjected to a series of tests to ascertain if truly they can be adopted to help in solving the research problem at hand.

This coupled with the fact that the target population was so big, a lot of time and money had to be spent. Hence, the research became so expensive in the long run.

Findings

As a result of the extensive work done during this research, the researcher was able to find out the following:

i) The age of a witness heavily influences the level of accuracy and reliability of their evidence. Many respondents, across both the genders and age groups supported this.

ii) Gender does not influence the reliability and accuracy of the information given by the witness. This data can be analyzed as shown herein:

Analysis

The correlations were checked by making a series of assumptions for all the used independent and dependent variables as will be discussed later in this section. After assuming the biriate, 95% coefficient was used together with the QQ- plot tests. If a null hypothesis was used as a distinct assumption, the Z approach was adopted to aid in calculating the value of each of the used variables.

During the test, a series of assumptions were made. These are very important in helping to generate valid and interesting conclusions. They incorporated both modeling and non modeling assumptions as discussed below:

Population assumptions

All the populations used in the test actually have a significant role to play. Here, we make an assumption that each proportion of the population is acting as a true representation of the entire target object under study.

It can be checked by making reviews at many stages of the analysis and modifying the assumptions made concerning this.

Sample assumption

This type of assumption involves the random method of selecting the sample population. It makes an assumption that the sample should be fairly selected to give the required representation of the total population.

This can be checked by performing a control test and making a reasonable judgment on what kind of result is expected from this test.

Distributional assumptions

Here, the model deals with the statistical errors about probability distribution of the said errors. It can also be based on the observations made during the test.

In order to check it, it is important for the researcher to use regression model validation and modify the assumption errors using the non- Gaussian distribution measurement methods.

Cross variation assumptions

This type of assumption is based on the assumption that errors are statistically independent. It can also be based on the idea of joint probability distribution the observations made in the random errors in a model.

Structural assumptions

It is a type of assumption that is based on the relationship one or more variables. For instance, it may include the assumptions made on the statistics fron the unobservable variables e. g. in linear regressions.

In order to help check it, the researcher can use statistical procedures of regression model validation. Besides, no-Gaussian distribution measurements can also be used to help in modifying the errors that may result from these assumptions.

Apart from checking the above assumptions, the next role of a researcher is to deal with the type I and II errors. They were controlled by the use of bonferonni and power analyses. These are a series of tests that would be adopted to detect, regulate and ultimately give a way forward on how these errors can totally be eliminated from influencing the test results. If power test, for instance, was not used, the results would be so erroneous to the extent that it would not be able to generate a fairly accurate data that any sound minded researcher would rely on. Hence, these analyses were inevitable.

When carrying out the test, an assumption can be made that all the three variables in the study are independent and bivariate. At the same time, the test assumptions are made Q-Q plot together with 95% confidence.

The data got from age; the next variable indicated that it had a mean of 39. 4 and a median of 34. 6 with a standard deviation of 50 simply because the figures were ranging from 22. 0 to 72. 0. Hence, it had a skewwness of -0. 7 and a kurtosis of -0. 3.

The third item whose results were analyzed was the level of accuracy of the eyewitness. After the use of SPSS to analyze the data, it was estimated that it’s mean was34. 8 while the median was 37. 0. Because its data was ranging from 19. 0 to 87. 0, it was calculated to be having a standard deviation of 68. 0. Meanwhile, the kurtosis and the skewwness were estimated at -0. 5 and -0. 2 respectively.

Thereafter, the next step was to look at the normal Q-Q plots in conjunction with Confidence Intervals (CIs) to help in getting the data on kurtosis and skewwness for each and everyone of these variables used in this study.

Hence, for confidence, the Confidence Interval was on the skewwness was got at [-24, 73]. However, its CI on kurtosis was estimated at [-1. 76, 32]. It is important to note that all these were done after including zero.

For age, the next variable, the CI on skewwness was reached at [-18, 72] while its CI on kurtosis was reached at [-1. 06’29]. This was also done after the inclusion of zero as an important component of this analysis (Bruck, M., & Ceci, S. J., 1999).

For the last variable, accuracy, the CI on skewwness was reached at [-3. 4, 87] while the CI on kurtosis was reached at [-0. 7, 19]. This analysis was also done after the inclusion of zero as an important component in this research.

Generally, this analysis was done given that each and every one of these variables had a Q-Q plot in line with the normalcy. However, given that some of them were loose, the distinct differences between them could not be established.

In this regard, the entire normalcy for each of these variables was retained. It was also assumed that there is an existence between the vicariate distributions between the variables.

Given that all the assumptions were strictly adhered to, the multiple regression analysis was done and also that a total of two 2 F tests were carried out, to ascertain the relationship between age and the level of accuracy of a witness.

A part from this, the Bonferroni procedure was also thoroughly used. This would be very instrumental in helping to control the possible feared occurrence of Type One Error so as not to exceed + (-) 0. 5. If this is done, the alpha value for each of these tests to be exactly at -0. 25.

This leads to the value 000[f (72) = 906. 437] as that of P from the F test. The above value of P is obtained if the test is only carried for age, not on another variable. From this, it can be found that 87% of the level of confidence obtained can be attributed to be directly influenced by a witness' age.

The above data may be subject to change especially if the very test is extended to other variables. Specifically, if the level of confidence is included as another variable, the new value of P will come to 000[F= (73) = 869. 627]. Just like the previous tests, this same test also happens at . 025 qualifying the above changes to the effects of the inclusion of age as a new variable to the test.

In this regard, it was expected that the correlation chosen was to be relevantly specific and precise with either positive or negative symbols to indicate their clear direction. Hence, it was assumed that the correlation was between age and confidence; age and accuracy and confidence and accuracy be . 732, . 787 and . 764 respectively.

After this, the next stage was to carry out a test on the effects of these variables using Welsch and Hoaglin (1978). This was based on the sample population of 172, a number greater than 50. The outlier was to be 13, 27, 49, 118 and 172. When doing this, standardized DEBATES and DEFITS were used. Even if 18 cases were, used, the DEBATES would only consist of 5 most influential ones. Later, the most influential DEFITS were eliminated from the whole list of 27. After the elimination of the outliers, the correlation matrix is calculated. the outliers are removed using a regression analysis that uses Leverage values done according to the Hoaglin and Welsch’s91978) guideline values.

However, if the violations are made, the outliers are eliminated. Then, the assumptions are checked. If the assumptions persist, the analysis is stopped

before a null hypothesis is made that the correlation matrix are equal. It is then identified and and tested using James Steiger's(1980) Chi square test.

The next step was the T Test. Its role is majorly to help check the role played by the regression coefficient of the predictors. As Bonferron asserts, the alpha value expected for each of the tests carried out should be . 017.

At the end of the test, tolerance and the VIF were carried out to help the researcher to ascertain the degree of multicollinearity between the three variables. With this observed, it was found out that the VIF= 12. 027 at a value greeter that 10. On the other hand, the tolerance was less than 1. 0 at a value of 0. 7. The correlation will be highest between age and accuracy, the strongest predictors in the test. This is based on Steven(1984) argument that the strong collinearity only exist between the strongest variables in the test (Ackil, J, K., & Zaragoza, M. S., 1998).

Conclusion

Based on the above findings, the researcher was able to make the following conclusions:

i) It is a fact that age of the witness directly affects his/her level of accuracy in witnessing. This is evidenced in children (as control specimens) who give different accounts of similar situation on the basis of their ages. Their ages also directly affects their courage in presence of adults who are interrogating them. Younger children are more likely to be frightened in presence of adults than older children. On the contrary, mature adults display a lot of self confidence and courage and therefore are more likely to give accurate

accounts of what happened than children. Their memory is also good compared to children and therefore their facts in a case are more likely to be consistent than those given by younger children. Adults are usually bold and are certain that the facts they give in court cannot be used against them and hence it is not easy to manipulate them.

The assumption here is that adults used in the experiment are of sound mind and are assured that the information given will not be used against them.

ii) In deed, accuracy of witnesses improves with increasing age and reaches its optimum in prime adulthood when they have enough self confidence, courage and memory. The most accurate of a witness is the adult stage. As was observed, children and the elderly persons are less accurate compared to the adults who are at the climax of their mental capacity. Children can not be reliably accurate especially when giving sensitive information about what had happened in the past. This also applies to the very old people whose mental growth is deteriorating. On the other hand, the mature adults whose mental capacity has matured up are more accurate because they have an ability to remember many things.

Recommendations

Based on the findings of this extensively carried out research, the researcher was able to give the following recommendations:

i) The law enforcers and the judicial personnel should subject the witnesses to a test before arraigning them in a court of law to testify for of against the defendants of plaintiffs for any legal suit. Just the same way the researchers

were able to use a video clip to ascertain the level of keenness of the witnesses is the same way it should be done in real life situation.

ii) Only in inevitable circumstances should the judgment be pegged on the information from the minors and the very old folks. The children's memory if full of tabula rassa and has not achieved a full maturity.

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