

Senior Project

The Bystander Effect: Would you speak up?

Honors Project

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Dedication Page

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Abstract

The purpose of this paper is to investigate the bystander effect. This will be done by examining instances of the bystander effect in history and by presenting and analyzing current scenarios through the use of a survey. The survey will present seven scenarios all of which include emergency or dire situations, and which may or may not include an audience besides the observer. The paper will examine whether or not the presence of other people affects an observer's decision to act and whether or not qualities in an individual affect their reaction.

The Bystander Effect: Would You Speak Up?

Have you ever been in an emergency situation where your assistance could have been useful, but you ignored the call for help because you were busy or did not want to get involved? We have all been in such situations at one time or another. The question is do our reactions differ greatly or is there a pattern that decides them. This paper investigates a theory known as the bystander effect to explain these situations. The purpose of the experiment is to determine whether the bystander effect presents itself in created scenarios on a survey and whether an educational major or chosen profession influences a person's responses. The research questions are: Is a person more likely to assist in a crisis when other people are present, or when they are alone and facing a crisis and does their field of interest impact their decision on whether or not to act?

Background

The bystander effect is a psychological theory that states that the greater number of people present, the less likely the people are to help an individual in distress. It focuses on the idea of diffuse responsibility, which states that when more people are present the individual feels less responsible to take action (Cherry, 2012). Each person assumes someone else will take the initiative to act first, prolonging any assistance for the victim. On the other hand when fewer witnesses are present, actions are supposedly taken more efficiently.

The bystander effect was first demonstrated by John Darley and Bibb Latane in a laboratory in 1968, after they became interested in the topic, following the murder of Kitty Genovese in 1964 (Darley & Latané, 1968). The murder of Kitty Genovese is credited as the most well-known example of the bystander effect. Ms. Genovese was a 28-year-old woman returning home from work, late one night, when she was attacked outside of her apartment.

Thirty eight people, in nearby apartments, witnessed the incident occurring and it took more than 30 minutes before the police were contacted, at which time Ms. Genovese was dead (Darley & Latané, 1968). After the incident, many witnesses stated “I didn’t want to get involved”, mainly because they feared physical harm, public embarrassment, involvement with police procedures, and lost work days or jobs (Darley & Latané, 1968). This is the perfect example of the bystander effect at work. Every witness who saw or heard the scene unfold, could have acted, but figured someone else would report it. Had someone acted more quickly, her life may have been spared.

Darley and Latané explained the bystander effect using two principles of social psychology: pluralistic ignorance and the diffusion of responsibility. Pluralistic ignorance is the assumption that because no one is helping everything must be all right. Diffuse responsibility is the feeling that when others are present there is no need for the individual to act (Darley & Latané, 1968).

Other historic events that can be related to the bystander effect include the parable of the good Samaritan, Edison electrocutes an Elephant, the murders of Shanda Sharer and Ilan Halimi, and even the Holocaust (“Notorious cases” 2009). These events all included an audience which prevented help from reaching the victims in a timely manner.

Literature Review

The literature both supports and negates the concept of the bystander effect, depending on whom you ask (Manning, Levine, & Collins, 2007) (Brock, 2008). These two articles debated the legitimacy of the parable of 38 witnesses, or the story of Kitty Genovese. Some of the criticisms presented include: individuals may be lead to believe other observers are more qualified to help, some may be too self-conscious to act, and the fears associated with perception can also be an explanation (“Bystander apathy experiment”, 2012). But for the purpose of this

study we are going to accept the validity of the bystander effect to accomplish our goals. This study, in particular, is needed because this aspect of the bystander effect, the impact of field of interest on a person's decision, has never been studied before.

Methods

To examine the bystander effect more thoroughly a survey was created with different scenarios. The survey contained three demographic questions to use for comparison. They were gender, whether student or professor, and chosen major. The other seven were close-ended scenario questions whose responses varied from no involvement to very involved. The situations presented were a car accident, a fire, a gunshot, stealing, and abuse. The primary hypothesis was that in the scenarios where other individuals besides the observer were present, the level of involvement was less than in situations where the observer was alone. The secondary hypothesis was that if a student or professor is majoring in a health related field their level of involvement would be greater than a non-health related major.

Study Design

The study design used is a mixed methods, non-experimental design, specifically, a prospective correlational design. It attempts to understand relationships among phenomena (variables) as they naturally occur, without researcher intervention. To be considered a correlational design data must be collected on at least two variables for the same group of subjects (Polit & Beck, 2010). In this design there are three variables presented. The two independent variables are the chosen major of the observer and the presence of an audience. The dependent variable is the level of involvement the observer takes in a situation. This study is considered non-experimental because it has no control, so there is no manipulation by the

researcher. Finally, the study is considered prospective because the research is being done in the present time, not being examined from past studies.

Sample Population

The convenience sample was taken from students and professors on the campus of the University of North Carolina at Pembroke. Seventy-five surveys were collected in total. Of those surveys collected, ten were answered by female faculty, the other sixty-five were answered by both male and female students of health and non-health focused majors. The inclusion criteria for selected subjects was students and professors on campus that were eighteen years of age or older. The exclusion criteria for this survey were those individuals who cannot read (minimum of a 5th grade reading level), non-English speaking people, and pregnant women. These individuals were excluded because of time and financial constraints, as well as vulnerabilities.

Study Procedures

Over the course of two weeks surveys and consent forms were distributed across the campus of the University of North Carolina at Pembroke. All consent forms were kept separate from survey responses to maintain anonymity of the responses. No names were taken on the survey themselves so that the researcher could remain impartial and unbiased. Both forms were kept in separate envelopes under lock and key until all results were assembled. Then only the researcher had access to the final data when compiling analyses, tables, and graphs.

The surveys themselves consisted of ten questions with pre-set responses and only took participants approximately 10 to 15 minutes to complete at one point in time. No repeat observations or tests were performed. And before taking the survey, participants were reminded to respond with the action they think they would take in a similar real life situation, not what action they think they should take. They were also reminded of the confidentiality. If the

participants felt judged or thought the responses could be traced back to them, they may falsify their information to make themselves look better and please the researcher.

Primary Outcome

Each scenario question was scored on a one to five point system using an ordinal scale. Five points correlated with the most involved response to a scenario question. A score of 1 meant the least amount of involvement. The values for each question were added together to determine an overall composite score for the individual. These scores were then evaluated using an interval based frequency distribution table. The higher the interval, a person fell into, the more likely that individual was to act in an emergency situation.

To ensure the safety of the participants, the Institutional Review Board (IRB) chair of the University of North Carolina at Pembroke approved the study. The data collection tool used for the study was a survey. This posed no physical threat to the individual participants. The only possible side effect of participating in the survey was slight emotional trauma if one of the fictional scenarios stirred up any emotional memories in the client. In this rare case an individual would be given the option to opt out of the study. This did not occur to any of the participants.

Statistical Analyses

Descriptive statistics were used to analyze the accumulated data, specifically measures of central tendency and variability. The measures of central tendency used in this study were mode, median, and mean. And the measure of variability used was range.

As for internal and external validity there were some threats to the study. Internal validity was threatened by the factor of selection. This occurs when random assignment fails to balance out differences among subjects across different conditions of a study (Polit & Beck, 2010). The results would have better represented the population, if there were equal numbers of health and

non-health related groups. The aspect of external validity, which could threaten the results of the study, is the Hawthorne Effect. This effect states that participants might change their behavior or response because they know the researcher is observing them (Polit & Beck, 2010). Attempts were made to control both of these aspects through reassurance and some purposive sampling.

Findings

Of the 75 surveys distributed, all were completed. Both male and female students, as well as female professors, completed these 75 surveys. All 75 individuals agreed to the study and signed a consent form to ensure it was of their own volition. The breakdown of the survey takers included: 32 female students with a health background, sixteen female students with a non-health related background, six male students with a health related background, eleven male students with a non-health related background, and ten female professors with a health related background.

The primary hypothesis was that in the scenarios where other individuals besides the observer were present, the level of involvement was less than in situations where the observer was alone. The research evidence supported this hypothesis. In the scenarios where individuals were alone they were more likely to act. We see this in the mean values for each question (Appendix A, Figure D1). For example, questions D and E were very similar in context, the only difference was that E included an audience. The mean value for question D was 3.84, the mean value for question E was 3.1. This supports the concept of the bystander effect because in situation where others were around an individual was less likely to act. Question H was another instance where the observer was alone. The mean value for question H was 4.01, a rather high value.

The secondary hypothesis stated that if a student or professor is majoring in a health related field, their level of involvement would be greater than a non-health related major. This was also supported by statistical data. The mean value for a composite score of an individual with a health related major was 26.8 (Table B8, Figure D2). The mean value for an individual in a non-health related field was 24.2 (Table B9, Figure D2). The modes were similar, but that is not unlikely when the range of scores is so small. The range for health related majors was 18 and the range for non-health related majors was 17. The medians also supported the principles of the bystander effect. The median for health related majors was 28 and the median for non-health related majors was 24.

The limitations of this experiment primarily have to do with time constraints and sample distribution. The survey could have contained more scenario questions to make the data more reliable. Unfortunately time would not allow it. The only question that seems negated by the bystander effect is question F, because its mean value of 4.4, with an audience, is higher than any other question (Figure D1). This cannot be relied upon because there is no question with a similar context to compare it to. Had there been a question similar, except for the fact that the observer was alone, it is predicted that the results would have represented the bystander effect accordingly. Another limitation of the study is to whom the information can be generalized because unequal numbers of the various groups were taken. The sample should have been more representative of the population. There were not enough male students or professors sampled.

Discussion

Previous research has shown variances in individual qualities, which may affect the bystander effect, such as gender and ethnicity (Ormsby, 2011). Though the two hypothesis stated in this paper did not address these concepts, gender was examined in the results as well. Females proved more likely to involve themselves in matters with a mean of 26.9 for health related

majors and 24.7 for non-health related majors (Table B1, Table B2, Figure C4, Figure D3).

Whereas males with health related backgrounds showed a mean value of 25.7 and those from non-health related backgrounds showed a mean value of 23.5 (Table B3, Table B4, Figure C3, Figure D3).

Conclusion

In conclusion both hypothesis were addressed and the results supported the foundation of the bystander effect. An audience does make an individual less likely to respond in times of crisis and a health background or focus may an individual more likely to respond. There were flaws in the research design and data collection tool, but enough information is available to necessitate further research into the subject.

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Appendix A

Survey Results

| FS | MS | FP | Health | Math | Science | Business | English | MC | Other | Ex. D | Ex. E | Ex. F | Ex. G | Ex. H | Ex. I | Ex. J | Total | |
|----|----|----|--------|------|---------|----------|---------|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------------|
| x | | | | | | x | | | | 4 | 2 | 3 | 3 | 4 | 4 | 2 | 22 | |
| | x | | | | | | | | x | 5 | 1 | 5 | 4 | 4 | 1 | 1 | 21 | Undecided |
| x | | | | | x | | | | | 2 | 2 | 3 | 3 | 4 | 1 | 1 | 16 | |
| | x | | x | | | | | | | 4 | 1 | 5 | 3 | 3 | 1 | 5 | 22 | |
| | x | | | | | | | | x | 2 | 1 | 5 | 3 | 3 | 1 | 1 | 16 | Undecided |
| x | | | x | | | | | | | 4 | 2 | 5 | 3 | 4 | 1 | 3 | 22 | |
| x | | | | | | | | | x | 4 | 4 | 5 | 4 | 4 | 5 | 4 | 30 | Criminology |
| x | | | | | | | | | x | 4 | 2 | 4 | 3 | 4 | 5 | 1 | 23 | Undecided |
| x | | | x | | | | | | | 4 | 1 | 4 | 3 | 4 | 1 | 3 | 20 | |
| x | | | x | | | | | | | 2 | 2 | 3 | 3 | 3 | 1 | 5 | 19 | |
| | x | | | | x | | | | | 4 | 2 | 5 | 2 | 4 | 5 | 4 | 26 | |
| x | | | x | | | | | | | 4 | 4 | 4 | 4 | 4 | 4 | 2 | 26 | |
| | x | | x | | | | | | | 5 | 4 | 5 | 4 | 5 | 4 | 4 | 31 | |
| x | | | | | | x | | | | 4 | 2 | 5 | 4 | 4 | 5 | 4 | 28 | |
| x | | | | | | | x | | | 4 | 5 | 4 | 4 | 4 | 5 | 5 | 31 | |
| | x | | | | x | | | | | 2 | 2 | 5 | 4 | 3 | 1 | 2 | 19 | |
| | x | | | | | x | | | | 5 | 1 | 5 | 3 | 3 | 5 | 3 | 20 | |
| | x | | | x | | | | | x | 4 | 4 | 5 | 4 | 4 | 5 | 5 | 31 | Music |
| | x | | | | | | | | | 4 | 2 | 5 | 3 | 3 | 4 | 4 | 25 | |
| | x | | x | | | | | | | 4 | 1 | 4 | 4 | 4 | 5 | 4 | 26 | |
| x | | | | | | x | | | | 4 | 4 | 4 | 3 | 5 | 3 | 5 | 28 | |
| | x | | | | | | | | x | 4 | 2 | 3 | 4 | 4 | 5 | 1 | 23 | sociology |
| x | | | | x | | | | | | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 24 | |
| | x | | | | | x | | | | 5 | 1 | 5 | 3 | 4 | 5 | 5 | 28 | |
| x | | | x | | | | | | | 4 | 4 | 4 | 4 | 4 | 5 | 4 | 29 | |
| x | | | | | x | | | | | 2 | 2 | 4 | 4 | 3 | 3 | 3 | 21 | |
| x | | | | | | x | | | | 2 | 1 | 4 | 3 | 3 | 5 | 5 | 18 | |
| x | | | | | | | x | | | 4 | 2 | 4 | 4 | 4 | 4 | 4 | 26 | |
| x | | | | | | | | | x | 4 | 4 | 4 | 4 | 5 | 5 | 4 | 30 | Education |
| | | | | x | | | | | | 4 | 4 | 4 | 1 | 4 | 4 | 1 | 22 | |
| x | | | | x | | | | | | 2 | 1 | 5 | 3 | 5 | 2 | 1 | 19 | |
| x | | | | x | | | | | | 4 | 2 | 3 | 3 | 4 | 5 | 3 | 24 | |
| x | | | x | | | | | | | 4 | 4 | 5 | 4 | 4 | 5 | 5 | 31 | |
| | x | | | | | | | | x | 2 | 2 | 5 | 5 | 1 | 1 | 4 | 20 | |
| x | | | x | | | | | | | 4 | 4 | 4 | 5 | 4 | 4 | 5 | 30 | |
| x | | | x | | | | | | | 4 | 4 | 4 | 4 | 4 | 5 | 4 | 29 | |
| x | | | x | | | | | | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 28 | |
| x | | | x | | | | | | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 28 | |
| x | | | x | | | | | | | 4 | 4 | 4 | 4 | 4 | 5 | 4 | 29 | |
| x | | | x | | | | | | | 4 | 2 | 3 | 3 | 4 | 5 | 4 | 25 | |
| | x | | x | | | | | | | 4 | 4 | 5 | 3 | 4 | 4 | 4 | 28 | |
| x | | | x | | | | | | | 4 | 5 | 4 | 3 | 4 | 5 | 5 | 30 | |
| x | | | x | | | | | | | 4 | 1 | 4 | 4 | 5 | 5 | 4 | 27 | |
| x | | | x | | | | | | | 5 | 4 | 5 | 4 | 5 | 5 | 1 | 29 | |
| x | | | x | | | | | | | 4 | 4 | 5 | 4 | 5 | 5 | 5 | 32 | |
| x | | | x | | | | | | | 4 | 4 | 5 | 3 | 4 | 5 | 3 | 28 | |
| x | | | x | | | | | | | 2 | 2 | 4 | 4 | 4 | 1 | 4 | 21 | |
| x | | | x | | | | | | | 4 | 4 | 4 | 3 | 4 | 5 | 5 | 29 | |
| x | | | x | | | | | | | 4 | 5 | 5 | 4 | 4 | 4 | 2 | 28 | |
| | x | | x | | | | | | | 4 | 1 | 5 | 3 | 4 | 2 | 2 | 21 | |
| x | | | x | | | | | | | 4 | 4 | 4 | 3 | 5 | 5 | 5 | 30 | |
| x | | | x | | | | | | | 4 | 1 | 5 | 5 | 4 | 2 | 5 | 26 | |
| | x | | x | | | | | | | 4 | 4 | 5 | 3 | 4 | 5 | 1 | 26 | |
| x | | | x | | | | | | | 2 | 2 | 4 | 3 | 4 | 2 | 1 | 18 | |
| x | | | x | | | | | | | 4 | 4 | 4 | 3 | 4 | 5 | 4 | 28 | |
| x | | | x | | | | | | | 4 | 2 | 4 | 4 | 4 | 4 | 4 | 26 | |
| x | | | x | | | | | | | 5 | 4 | 5 | 5 | 5 | 4 | 1 | 29 | |
| x | | | x | | | | | | | 4 | 2 | 5 | 1 | 4 | 1 | 2 | 19 | |
| x | | | x | | | | | | | 4 | 4 | 5 | 3 | 4 | 1 | 1 | 22 | |

| | | | | | | | | | | | | | | | | | | | | |
|----|----|----|----|---|---|---|---|---|---|------|-----|-----|------|------|-----|-----|---|---|---|----|
| | x | | | | | | | | | | | | 4 | 4 | 5 | 4 | 4 | 4 | 5 | 30 |
| x | | | | | | | | | | | | | 1 | 1 | 4 | 3 | 3 | 1 | 1 | 14 |
| x | | | | | | | | | | | | | 5 | 5 | 5 | 4 | 5 | 4 | 5 | 33 |
| x | | | | | | | | | | | | | 4 | 5 | 4 | 4 | 4 | 1 | 3 | 25 |
| x | | | | | | | | | | | | | 4 | 4 | 5 | 4 | 4 | 2 | 5 | 28 |
| x | | | | | | | | | | | | | 4 | 4 | 4 | 4 | 5 | 3 | 2 | 26 |
| | x | | | | | | | | | | | | 4 | 5 | 4 | 4 | 4 | 5 | 4 | 30 |
| | x | | | | | | | | | | | | 5 | 5 | 4 | 3 | 4 | 5 | 4 | 30 |
| | x | | | | | | | | | | | | 4 | 4 | 4 | 4 | 4 | 5 | 4 | 29 |
| | x | | | | | | | | | | | | 5 | 4 | 4 | 3 | 4 | 5 | 2 | 27 |
| | x | | | | | | | | | | | | 5 | 5 | 4 | 4 | 4 | 5 | 4 | 31 |
| | x | | | | | | | | | | | | 5 | 4 | 5 | 4 | 4 | 4 | 5 | 31 |
| | x | | | | | | | | | | | | 4 | 4 | 5 | 4 | 4 | 5 | 5 | 31 |
| | x | | | | | | | | | | | | 4 | 5 | 4 | 4 | 5 | 5 | 4 | 31 |
| | x | | | | | | | | | | | | 5 | 5 | 5 | 4 | 5 | 5 | 1 | 30 |
| | x | | | | | | | | | | | | 5 | 4 | 4 | 4 | 4 | 5 | 4 | 30 |
| 48 | 17 | 10 | 48 | 5 | 6 | 9 | 0 | 0 | 7 | 3.84 | 3.1 | 4.4 | 3.56 | 4.01 | 3.7 | 3.4 | | | | |

Note. FS= Female Student, MS=Male Student, FP=Female Professor, MC=Mass Communications

Appendix B

Table B1
Female/ Health Related Distribution Scores

| Scale of Involvement | # of People ^t |
|----------------------|--------------------------|
| 35-31 | 6 |
| 30-26 | 26 |
| 25-21 | 5 |
| 20-16 | 4 |
| 15-11 | 1 |

Note. Measures of central tendency and central variance (14, 18, 19, 19, 20, 21, 22, 22, 25, 25, 26, 26, 26, 26, 27, 27, 28, 28, 28, 28, 28, 28, 28, 28, 29, 29, 29, 29, 29, 29, 29, 29, 30, 30, 30, 30, 30, 30, 30, 30, 31, 31, 31, 31, 31, 32)

Mode: 29 and 30

Median: 28

Mean: 26.92857 (26.9)

Range: 18

Table B2
Female/ Non-Health Related Distribution Scores

| Scale of Involvement | # of People |
|----------------------|-------------|
| 35-31 | 2 |
| 30-26 | 5 |
| 25-21 | 6 |
| 20-16 | 3 |
| 15-11 | 0 |

Note. Measures of central tendency and central variance (16, 18, 19, 21, 22, 22, 23, 24, 24, 26, 28, 28, 30, 30, 31, 33)

Mode: 22, 24, 28, 30

Median: 24

Mean: 24.6875 (24.7)

Range: 17

Table B3
Male/ Male Students/ Health Related Distribution Scores

| Scale of Involvement | # of People |
|----------------------|-------------|
| 35-31 | 1 |
| 30-26 | 3 |
| 25-21 | 2 |
| 20-16 | 0 |
| 15-11 | 0 |

Note. Measures of central tendency and central variance (21, 22, 26, 26, 28, 31)

Mode: 26

Median: 26

Mean: 25.6666 (25.7)

Range: 10

Table B4
Male/ Male Students/ Non-Health Related Distribution Scores

| Scale of Involvement | # of People |
|----------------------|-------------|
| 35-31 | 1 |
| 30-26 | 3 |
| 25-21 | 3 |
| 20-16 | 4 |
| 15-11 | 0 |

Note. Measures of central tendency and central variance (16, 19, 20, 20, 21, 23, 25, 26, 28, 30, 31)

Mode: 20

Median: 23

Mean: 23.54545 (23.5)

Range: 5

Table B5
Female Students/ Health Related Field Distribution Scores

| Scale of Involvement | # of People |
|----------------------|-------------|
| 35-31 | 2 |
| 30-26 | 20 |
| 25-21 | 5 |
| 20-16 | 4 |
| 15-11 | 1 |

Note. Measures of central tendency and central variance (14, 18, 19, 19, 20, 21, 22, 22, 25, 25, 26, 26, 26, 26, 27, 28, 28, 28, 28, 28, 28, 28, 29, 29, 29, 29, 29, 29, 30, 30, 30, 31, 32)

Mode: 28 and 29

Median: 28

Mean: 25.96875 (26.0)

Range: 18

Table B6
Female Students/ Non-Health Related Field Distribution Scores

| Scale of Involvement | # of People |
|----------------------|-------------|
| 35-31 | 2 |
| 30-26 | 5 |
| 25-21 | 6 |
| 20-16 | 3 |
| 15-11 | 0 |

Note. Measures of central tendency and central variance (16, 18, 19, 21, 22, 22, 23, 24, 24, 26, 28, 28, 30, 30, 31, 33)

Mode: 22, 24, 28, 30

Median: 24

Mean: 24.6875 (24.7)

Range: 17

Table B7
Female Professors/Health Related Field Distribution Scores

| Scale of Involvement | # of People |
|----------------------|-------------|
| 35-31 | 4 |
| 30-26 | 6 |
| 25-21 | 0 |
| 20-16 | 0 |
| 15-11 | 0 |

Note. Measures of central tendency and central variance (27, 29, 30, 30, 30, 30, 31, 31, 31, 31)

Mode: 30 and 31

Median: 30

Mean: 30

Range: 4

Table B8
Health-Related Field Distribution Scores

| Scale of Involvement | # of People |
|----------------------|-------------|
| 35-31 | 7 |
| 30-26 | 29 |
| 25-21 | 7 |
| 20-16 | 4 |
| 15-11 | 1 |

Note. Measures of central tendency and central variance (14, 18, 19, 19, 20, 21, 21, 22, 22, 22, 25, 25, 26, 26, 26, 26, 26, 26, 27, 27, 28, 28, 28, 28, 28, 28, 28, 28, 28, 29, 29, 29, 29, 29, 29, 29, 30, 30, 30, 30, 30, 30, 30, 31, 31, 31, 31, 31, 31, 32)

Mode: 28, 29, and 30

Median: 28

Mean: 26.7708 (26.8)

Range: 18

Table B9
Non-Health Related Field Distribution Scores

| Scale of Involvement | # of People |
|----------------------|-------------|
| 35-31 | 3 |
| 30-26 | 8 |
| 25-21 | 9 |
| 20-16 | 7 |
| 15-11 | 0 |

Note. Measures of central tendency and central variance (16, 16, 18, 19, 19, 20, 20, 21, 21, 22, 22, 23, 23, 24, 24, 25, 26, 26, 28, 28, 28, 30, 30, 30, 31, 31, 33)

Mode: 28 and 30

Median: 24

Mean: 24.2222 (24.2)

Range: 17

Table B10
Students Health Related Distribution Scores

| Scale of Involvement | # of People |
|----------------------|-------------|
| 35-31 | 3 |
| 30-26 | 23 |
| 25-21 | 7 |
| 20-16 | 4 |
| 15-11 | 1 |

Note. Measures of central tendency and central variance (14, 18, 19, 19, 20, 21, 21, 22, 22, 22, 25, 25, 26, 26, 26, 26, 26, 26, 27, 28, 28, 28, 28, 28, 28, 28, 28, 28, 29, 29, 29, 29, 29, 29, 30, 30, 30, 31, 31, 32)

Mode: 28

Median: 27.5

Mean: 25.921053 (25.9)

Range: 18

Table B11
Students Non-health Related Distribution Scores

| Scale of Involvement | # of People |
|----------------------|-------------|
| 35-31 | 3 |
| 30-26 | 8 |
| 25-21 | 9 |
| 20-16 | 7 |
| 15-11 | 0 |

Note. Measures of central tendency and central variance (16, 16, 18, 19, 19, 20, 20, 21, 21, 22, 22, 23, 23, 24, 24, 25, 26, 26, 28, 28, 28, 30, 30, 30, 31, 31, 33)

Mode: 28 and 30

Median: 24

Mean: 24.2222 (24.2)

Range: 17

Appendix C

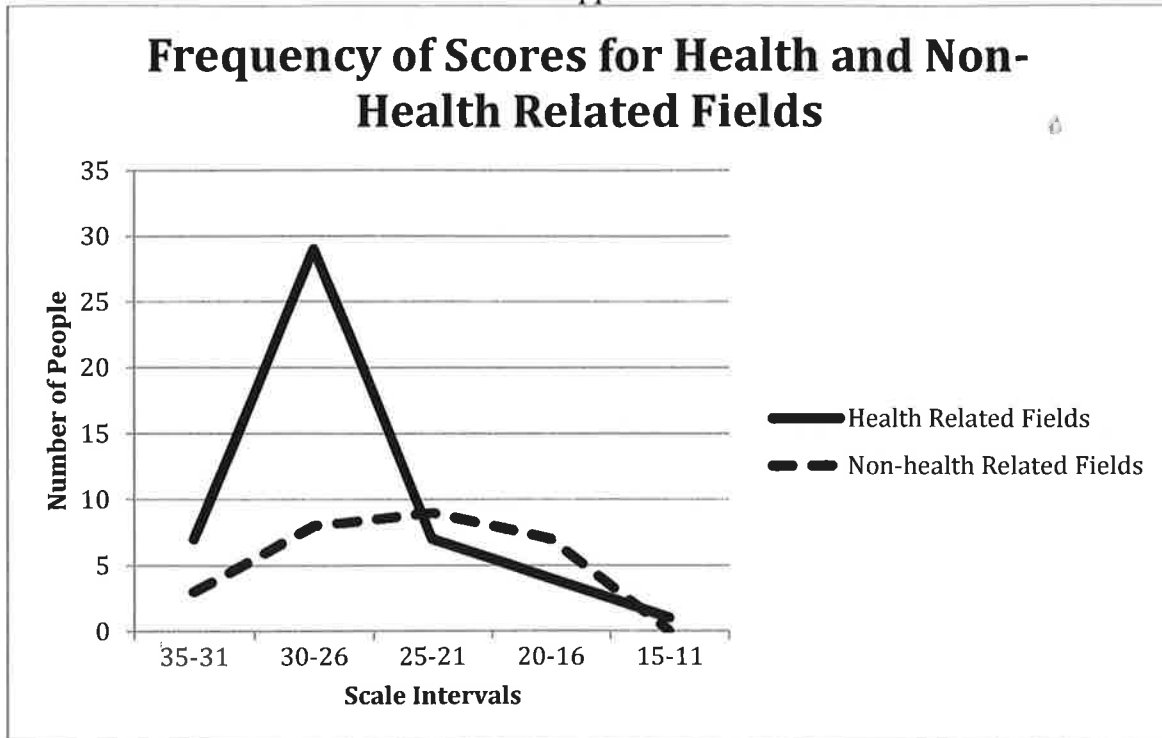


Figure C1. This graph shows the frequency of scores in specific intervals for health and non-health related fields.

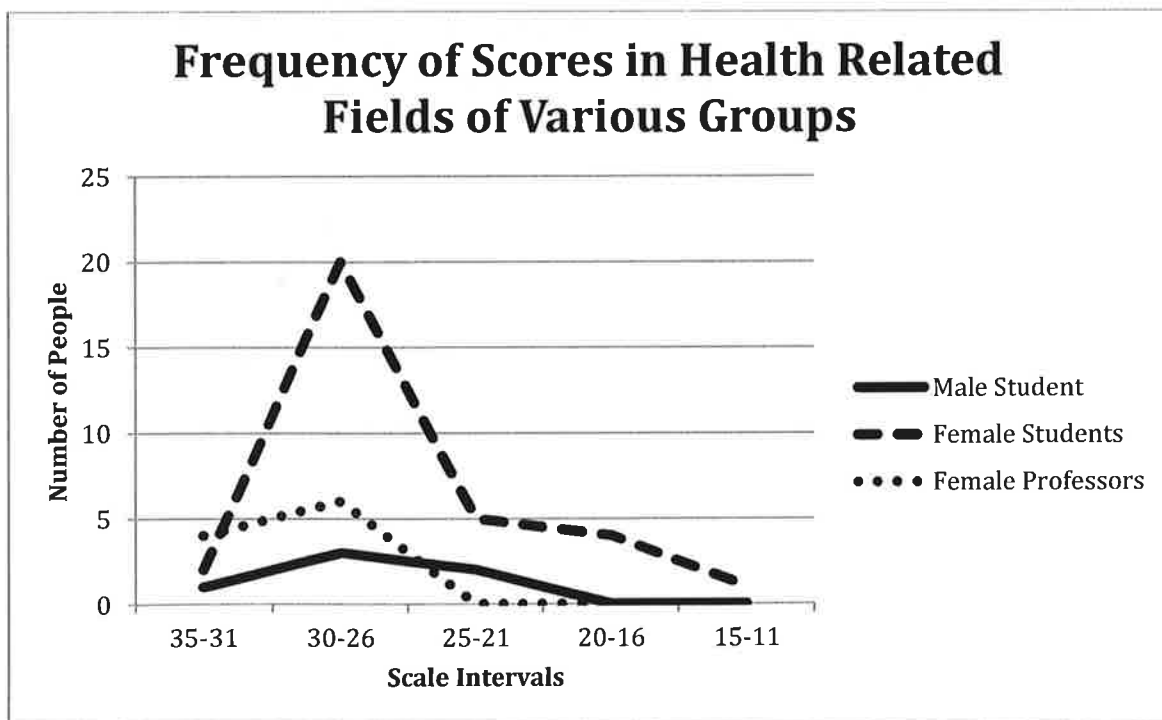


Figure C2. This graph shows the frequency of scores in specific intervals for the various health related groups.

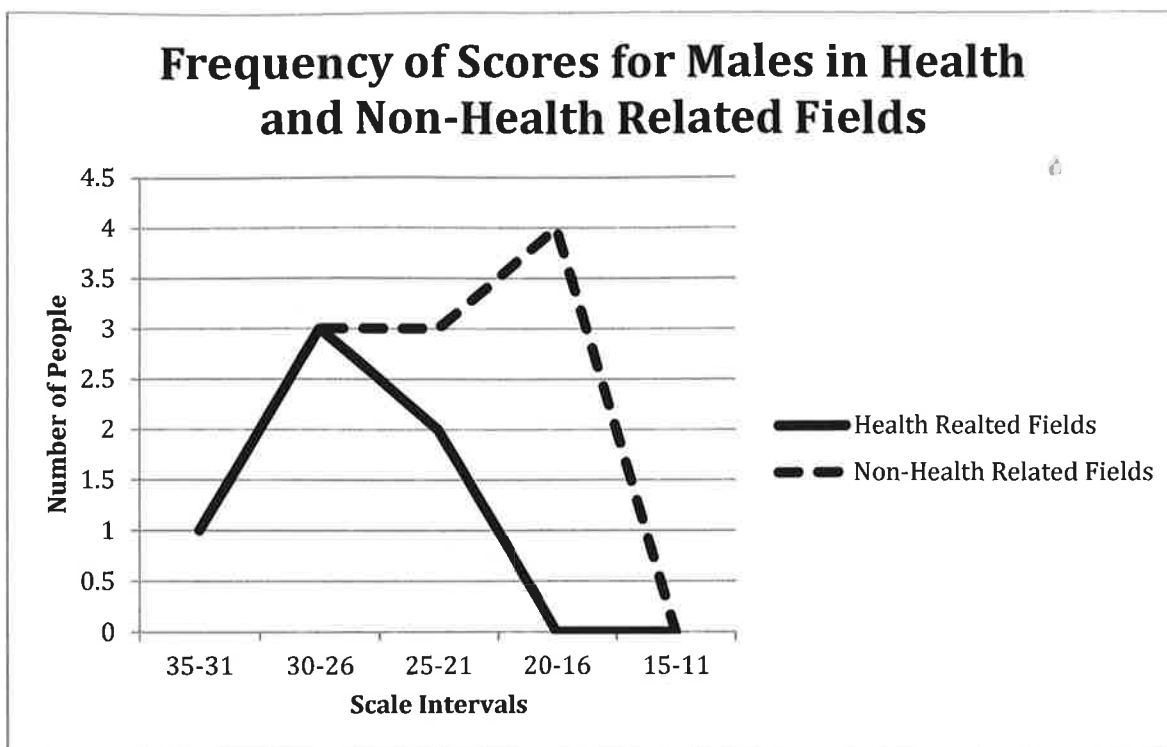


Figure C3. This graph shows the frequency of scores in specific intervals for males in health and non-health related fields.

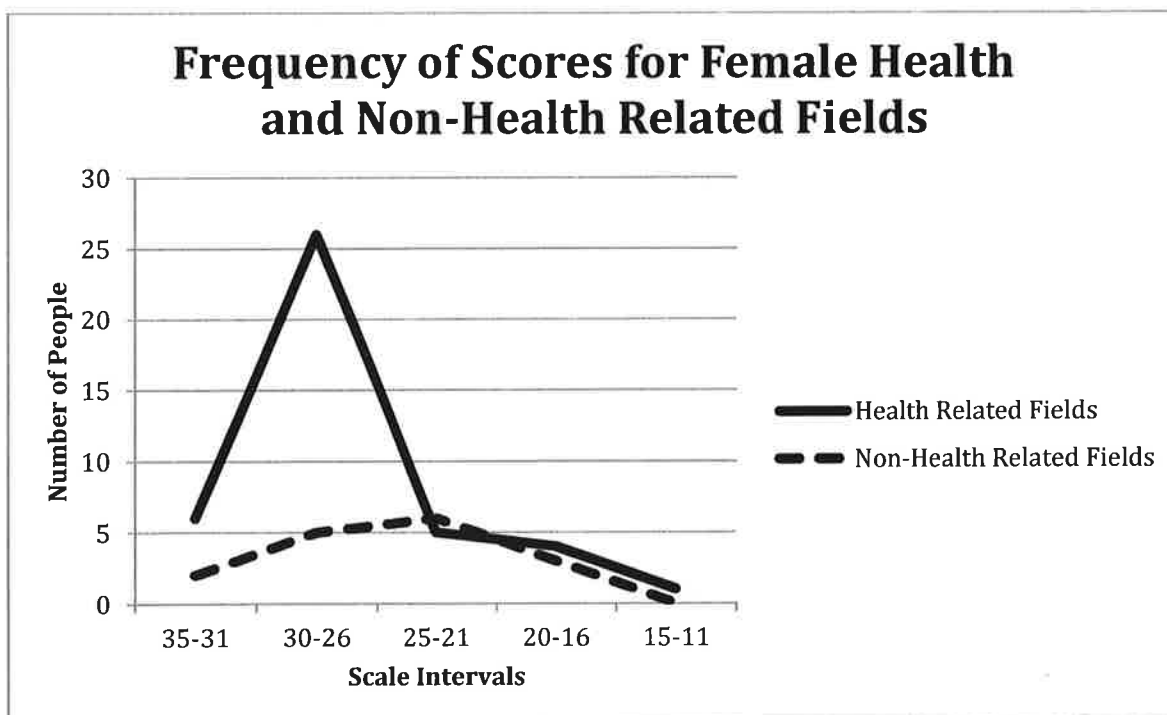


Figure C4. This graph shows the frequency of scores in specific intervals for females in health and non-health related fields

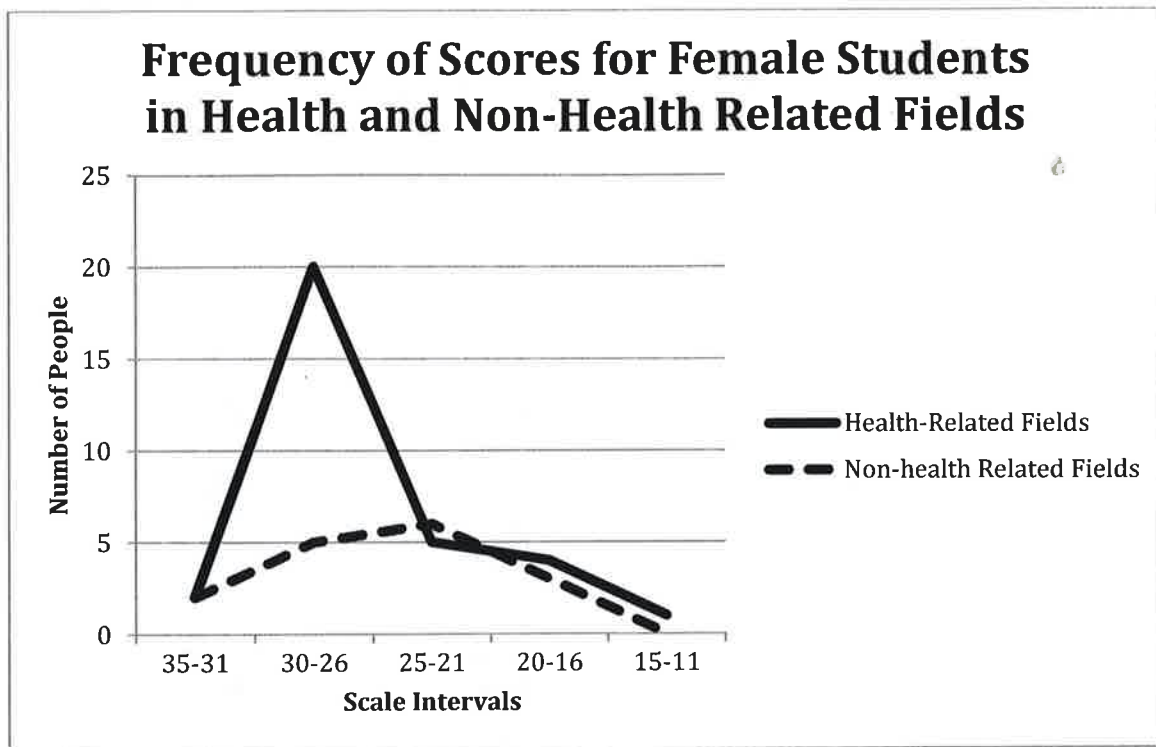
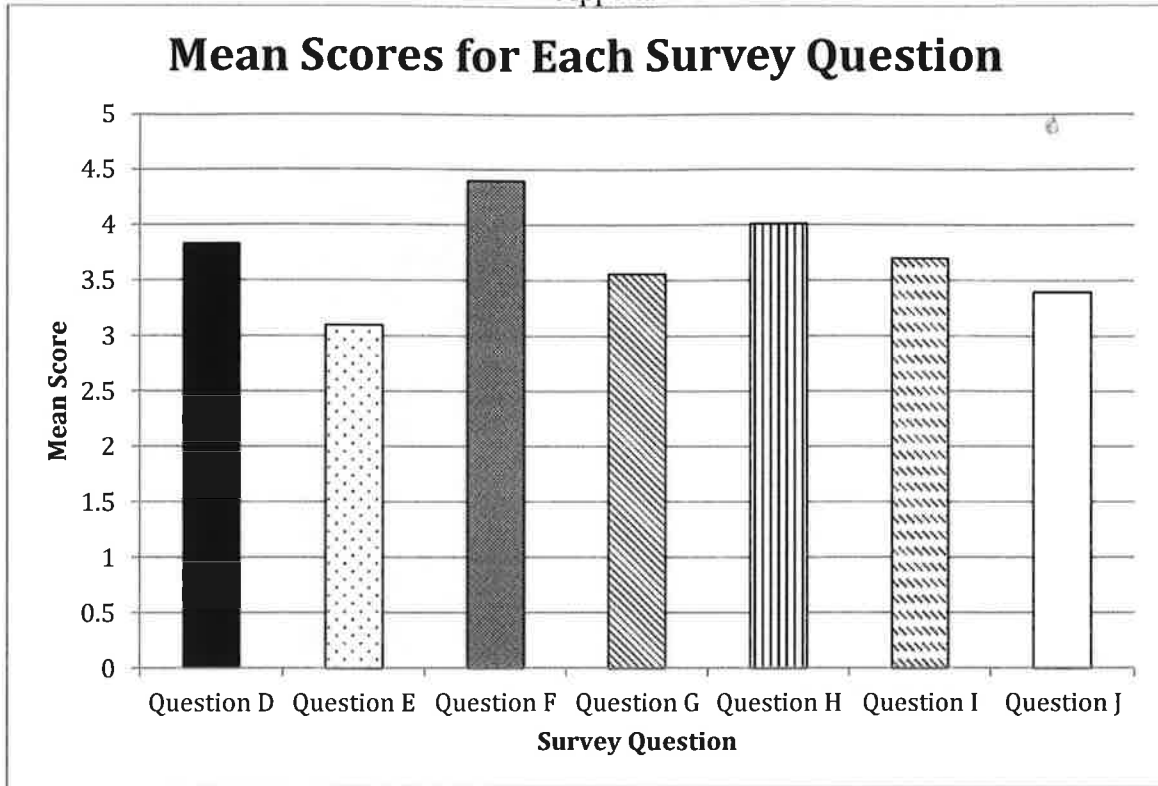


Figure C5. This graph shows the frequency of scores in specific intervals for female students health and non-health related fields

Appendix D



Legend

- Car Crash (Single Observer)
- Car Crash (Multiple Observers)
- Kidnapping (Multiple Observers)
- ▨ Gunshot (Multiple Observers)
- ▤ Fire (Single Observer)
- ▧ Theft (Multiple Observers)
- Abuse (Multiple Observers)

Figure D1. This graph shows the mean scores for the seven different scenario questions on the survey.

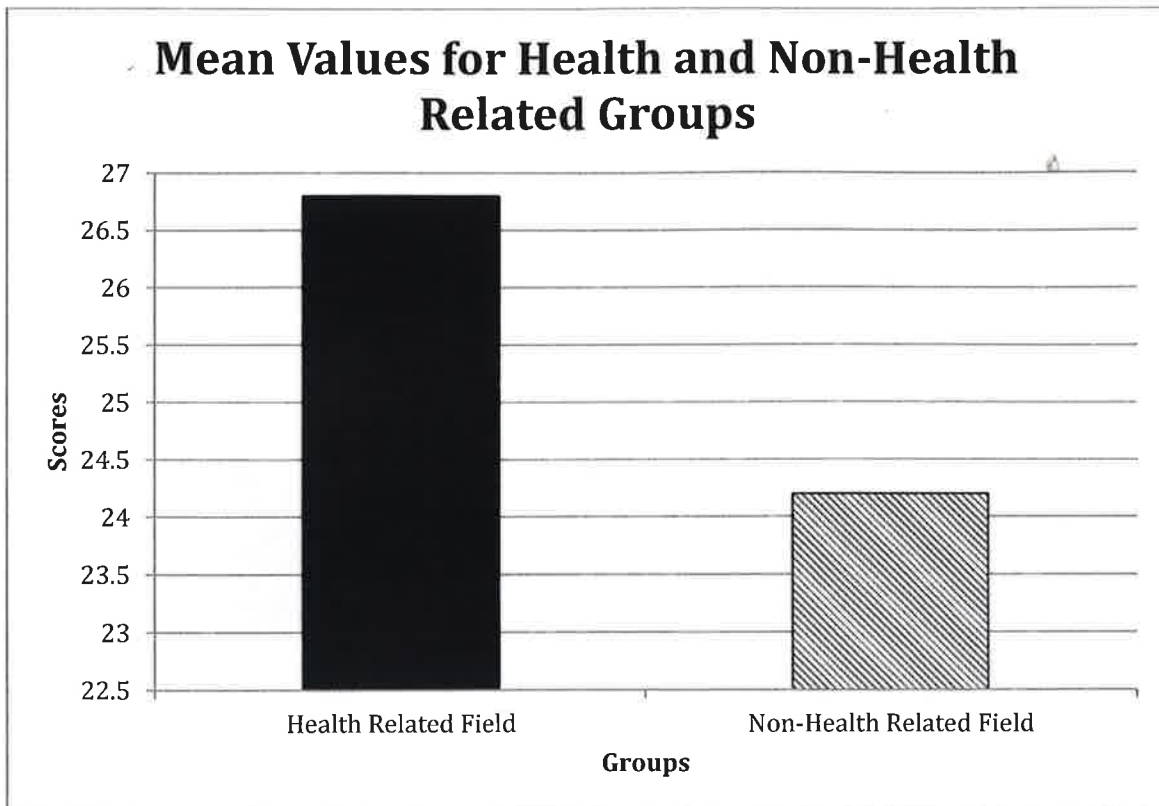


Figure D2. This graph shows the mean scores for the health and non-health related groups.

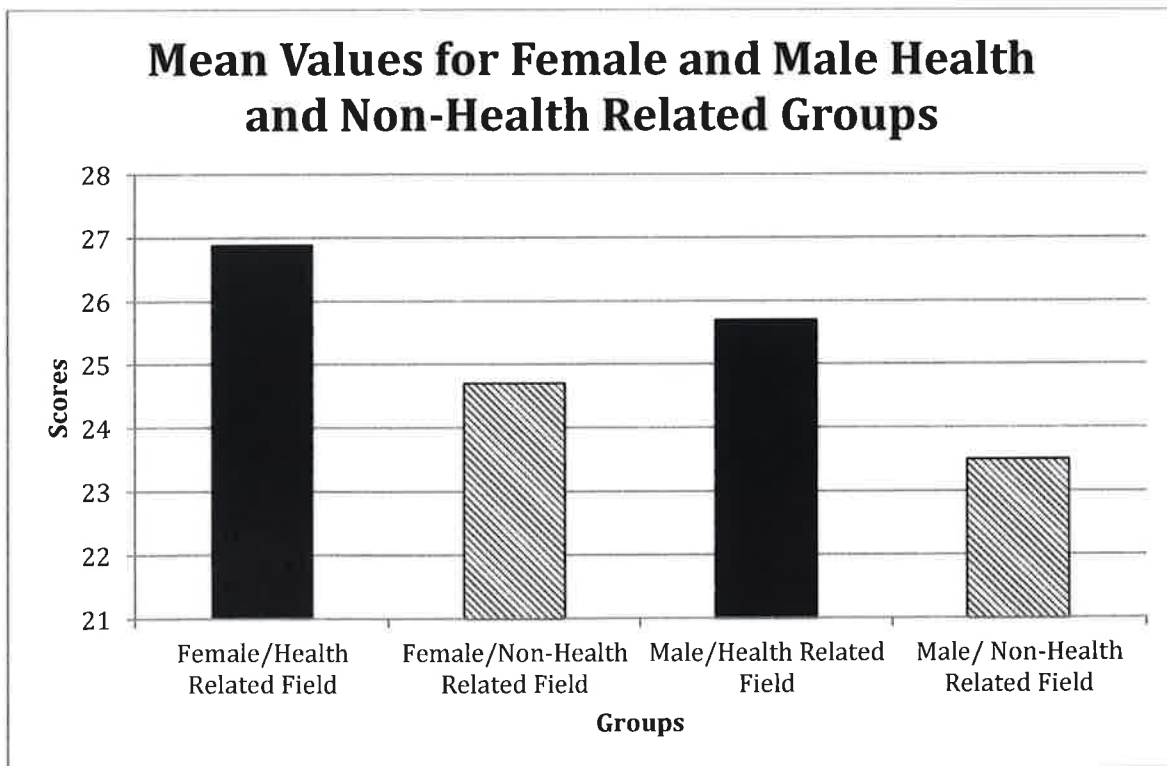


Figure D3. This graph shows the mean scores for female and male health and non-health related groups.

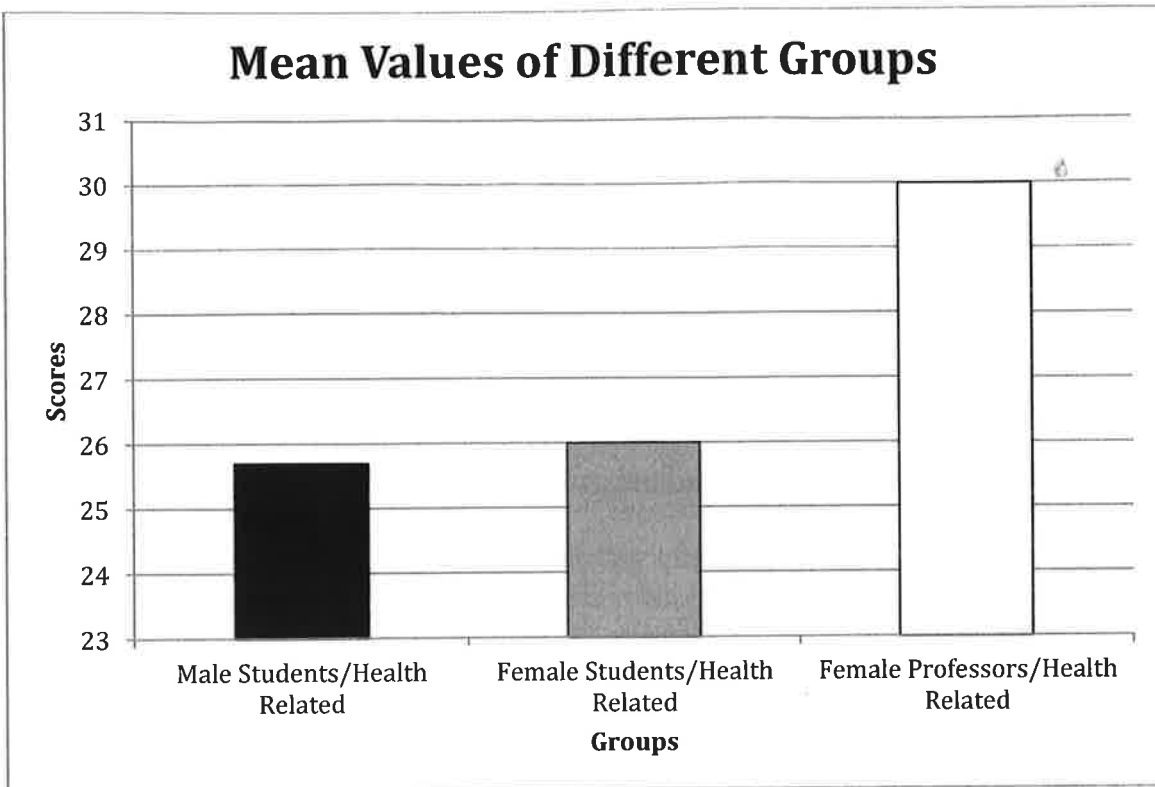


Figure D4. This graph shows the mean scores for the three different participant groups

Appendix E

Survey Topic: The Bystander Effect: What would you do?**Principle Investigator: Michelle Winfrey**

CIRCLE ONE CHOICE FOR EACH OF THE FOLLOWING QUESTIONS:

A. Participant Gender: F M

B. Participant Relationship to School: Student Faculty

C. Field of Interest: Health Math Science Business

English Mass Communications Other _____

***Before beginning remember to answer the questions as accurately as possible, you will not be identified or judged based on your responses**

D. You are driving down the interstate when you see two cars have collided past an off ramp. There is no sign of help on the scene yet. And the only people appear to be the victims in the two cars? What do you do?

- 1(Keep Driving)
- 2(Look at the accident, keep driving, and glance back)
- 3(Stop and watch as others stop and help)
- 4(Call 911 for help)
- 5(Personally help the victims)

E. You are driving down the interstate when you see two cars have collided past an off ramp. There are already additional cars at the scene, assisting the victims? But an ambulance or police car has yet to arrive. What do you do?

- 1(Keep Driving)
- 2(Look at the accident, keep driving, and glance back)
- 3(Stop and watch as others help the victims)
- 4(Call 911 for help)
- 5(Personally help the victims)

F. You are at the park with other families when you see an adult grab a child off the swings. The child screams "help, help, he's not my daddy." What do you do?

- 1(Turn around and walk away, better not to get involved)
- 2(Watch the adult walk away carrying the child, but do nothing)
- 3(Watch as another parent races to help)
- 4(Call 911 for help)
- 5(Follow/Approach the kidnapper and child)

G. You hear a gunshot outside your fully occupied apartment building, followed by a scream. What do you do?

- 1(Ignore it, it was probably nothing)
- 2(Go and hide in a back room)
- 3(Look out a window to see if you can see anything)
- 4(Call 911 for help)
- 5(Go outside and investigate the noise)

H. You are leaving you apartment to head to the store when you smell smoke coming from the apartment building across the street. Fire trucks have yet to arrive on scene?

- 1(Ignore it and head to the store anyway, it's not your building after all)
- 2(Look at the fire for a few seconds, but do nothing and leave)
- 3(Watch as other people arrive on scene to help, but keep a safe distance)
- 4(Call 911 for help)
- 5(Go across the street and see what you can do to help)

I. You are at the store when you see a child put a watch in his pocket from off the shelf, the parent is nearby with their back turned. What do you do?

- 1(Ignore it, its not your problem)
- 2(Watch the child for a few seconds, then go on your own way)
- 3(Watch as another customer approaches the parent of the child)
- 4(Tell a manager)
- 5(Go up to the parent and tell them what you saw)

J. The same parent and child from the previous scenario only this time instead of stealing you see the parent hit the child very hard in the face. What do you do?

- 1(Walk away, parents are free to raise their children how they please)
- 2(Watch to see if it happens again, when it doesn't walk away)
- 3(Watch another customer approach the parent and confront them)
- 4(Tell a manager or call the police for suspected child abuse)
- 5(Confront the parent yourself and make sure the child is alright)

Thank you for your participation. Have a nice day.

Figure E1. Copy of Survey Handout